# Facilities Corrosion Knowledge Proficiency Track Summary (Attachment to the CPC Source Training Page)

**Background**: The Department of Defense (DoD) acquires, operates, and maintains a vast array of facilities such as airfields, wharves, buildings, utilities, and other structures. All of these assets are susceptible to corrosion. Corrosion costs are extensive and the failure to act only increases those costs. The best possible life-cycle decisions must be made by design and sustainment professionals, which requires preparation through education, training and experience to fulfill the challenge of successful corrosion prevention and control (CPC) despite resource limitations.

Engineers, Architects, and Sustainment Professionals must address a broad range of CPC challenges at each installation. Designing and specifying facility designs may include the selection of enhanced materials and coatings in <u>severely corrosive environments</u> and <u>UFC 1-200-01 DoD Building Code</u>. Being prepared to address CPC challenges includes finding and completing appropriate training to master expertise in areas such as material selection, development of request for proposals, <u>criteria selection</u>, oversight of quality and commissioning actions, and the operation of facilities.

**Discussion:** There are many CPC education and training opportunities for DoD personnel such as the Association for Materials Protection and Performance (AMPP), and the Whole Building Design Guide (WBDG) (CPC Source Training Page and the DoD Courses Section under Continuing Education).

Table 1 seeks to simplify the task of determining which courses best fit the need of the individual and the organization. It is organized to assist in achieving appropriate knowledge levels to meet mission and employee CPC development requirements. The courses listed in Table 1 are ordered by *Track*, *Knowledge*, and *Proficiency Level*. Explanations are provided at the end of Table 1 to further assist the user in determining where their individual skills might coincide with the listed courses and topics.

These courses are placed in logical order by *Track* and *Level* but are not ordered by pre-requisites unless specifically stated by AMPP, or the <u>WBDG Continuing Section</u>. These courses are not a DoD requirement. It provides suggestions for organizations and individuals to better position themselves to manage career progression, professional registration continuing education, and mission execution needs to better address CPC related challenges affecting the facilities community and its workforce. It is possible that there are comparable courses offered by other organizations. The <u>CPC Source Competencies</u> web page provides additional insights into professional development.

**Recommendation:** Leverage Table 1 to establish and pursue CPC Proficiency development requirements. It is also suggested that Contractors review the content of the <u>CPC Source</u>, the CPC Source Competencies web page, and Table 1 for relevant information.

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
Track 1 – CPC Foundation	Entry-level knowledge development often focused on a specific interest or subject area. At this level, courses should assist in	Consistent with the non-specific knowledge needs at this level, more advanced learning opportunities are provided below. Planners &	Development of an advanced level of expertise with the course options listed below or from other sources.
Knowledge	establishing learning needs at the next Intermediate & Advanced levels. Knowledge listed below is essential for Planners & Program Managers.	program managers whose project workload includes specific CPC requirements should achieve this level of knowledge. In addition, some courses offer a practical, in-depth overview of a content area for specialists new to a particular industry.	
	DAU CLM 038 Corrosion Prevention and Control Overview (1CLP)	AMPP/SSPC Concrete Coating Application Specialist (CCAS) (3.0 CEUs)	AMPP/NACE CP Interference (4.8 CEU's)
	AMPP/SSPC Fireproofing Applicator (1.5 CEU's)	AMPP/SSPC Fundamentals of Protective Coatings <sup>1</sup> (3.8 CEU's)	AMPP/NACE Marine Coating Technology (3.1 CEU) (Prerequisite: Coating Inspector Program (CIP) Level I (4.9 CEU); CIP Level II (4.9 CEU) recommended)
	AMPP/NACE Basic Corrosion (3.6 CEU's)	DoD Corrosion Courses available on WBDG.org:	(ii) dBo) recommended)
	AMPP/NACE Industrial Coatings Application e-Course (4 Modules with differing PDH levels) AMPP/SSPC Ground Vehicle Corrosion/Protective Coatings (3.8 CEU's)	<ul> <li>DoD Utilities and Buried Structures (1 PDH)</li> <li>DoD Cathodic Protection Basics (1 PDH)</li> <li>DoD Waterfront &amp; Coastal Structures (1 PDH)</li> <li>CPC Facilities Life Cycle (Under development) (1 PDH)</li> </ul>	
	DoD Corrosion Courses available on WBDG.org:		
	<ul> <li>DoD Corrosion Fundamentals (1 PDH)</li> <li>DoD Coating Courses (1 PDH each module)</li> <li>Module 1 – Coating Fundamentals</li> <li>Module 2 – Coating Selection, Types, Performance, and the Environment (Under development)</li> </ul>		

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
	o Module 3 - Surface Preparation,		
	Application of Coatings, and Coating		
	Degradation and Failures (Under		
	development)		

Track 2 –	Targeted at the developmental	The SME develops professional competencies	Consistent with employee development
Subject	Engineer/Architect who is learning how	beyond the Basic Level and can apply	goals & requirements, this level might
Matter Expert	various aspects of the design process fit	intermediate level CPC knowledge assessment	include the requirement to be a PE/RA,
	together with that individual's specialty	& problem solving along with making	DAIWIA Level 3, and become an
	area of expertise. Includes CPC	contributions to the development of the facility design. Includes identification of the	established "SME" in their discipline area.
	coordination with disciplines, gathering analytic & design data, researching criteria,	CPC requirement, selection/editing of the	CPC knowledge should be commensurate with the level of expertise required for
	codes, WBDG, QA/QC/Cx, Life Cycle Cost	appropriate criteria (UFC, UFGS) to achieve	certification/registration. An SME
	Analysis, etc. The SME develops CPC	life-cycle expectations. Continued	provides field support, problem-solving
	knowledge to establish how it best fits into	certifications will be expected to ensure	recommendations, & collaborates with
	the design process to achieve life-cycle	enhanced support to the field in meeting	other disciplines to achieve required
	expectations. This level will identify	mission requirements.	levels of CPC consistent with life-cycle
	relevant certifications required to move to		expectations.
	the Intermediate level.		
	DAU CLM 038 Corrosion Prevention and	AMPP/NACE Coating Inspector Level 2 (4.9	AMPP/NACE Coating Inspector Level Peer
	Control Overview (1CLP)	CEU's);	Review-Exam Only (CEU's NA)
	AMPP/NACE Coating Inspector Level 1 (4.9	AMPP/NACE Cathodic Protection (CP) Level 2	AMPP/NACE Marine Coatings Technology
	CEU's)	(4.5 CEU) & 3 (5.1 CEU)	(3.1 CEU's);
	,		
	AMPP/NACE Cathodic Protection (CP) Level 1	AMPP/SSPC Abrasive Blasting Program (C7) –	AMPP/NACE Cathodic Protection (CP) Level
	(4.5 CEU)	(Intermediate level) (.75 CEU's)	4 (5.3 CEU's)
	AMPP/SSPC Applicator Training Basics	AMPP/SSPC Coating Application Specialist Level 2	AMPP/NACE Corrosion Specialist
	(required for CAS Certification) (3.8 CEU's)	(Full Status) (CEU's NA)	Certification (CEUs NA-Special Certification)
	AMPP/SSPC Coating Application Specialist	AMPP/SSPC Plural Component Application for	AMPP/SSPC Master Coatings Inspector
	Level 1 (0 CEU's)	Polyureas/High Solid Coatings (1.5 CEU's)	Program (CEU's NA; Special Certification)
	AMPP/SSPC Concrete Coating Basics (1.5	AMPP/SSPC Spray Application Certification (2	AMPP/SSPC Protective Coatings Specialist
	CEU's) (required for Concrete Coating Inspector Certification (3.8 CEU's)	options) (.6, .8 CEU's)	(CEU's NA)
	inspection determination (did die d)	AMPP/SSPC Thermal Spray Inspector Training	AMPP/SSPC Concrete Coating Inspector
	AMPP/NACE Industrial Coatings Application	(Intermediate) (.8 CEU's)	Program (Multiple paths) (3.8 CEU's but
	e-Course (4 Modules with differing PDH levels)		varies)

### DoD Corrosion Courses available on WBDG.org:

- DoD Corrosion Fundamentals (1 PDH)
- DoD Coating Courses (1 PDH each module)
  - Module 1 Coating Fundamentals
  - Module 2 Coating Selection, Types, Performance, and the Environment (Under development)
  - Module 3 Surface Preparation, Application of Coatings, and Coating Degradation and Failures (Under development)
- DoD Utilities and Buried Structures (1 PDH)

AMPP/SSPC Water Jetting Program (Intermediate) (.6 CEU's)

AMPP/SSPC Surface Prep & Paint Application for Power Tool Cleaning Operators & Brush/Roll Paint Applicators Certification (Intermediate) (.7 CEU's)

AMPP/SSPC Marine Plural Component Program (Intermediate) (.8 CEU's)

AMPP/SSPC Fireproofing Inspector eCourse (.8 CEU's)

# DoD Corrosion Courses available on the WBDG. org:

- CPC Facilities Life Cycle (Under development) (1 PDH)
- DoD Waterfront & Coastal Structures (1 PDH)
- DoD Cathodic Protection Basics (1 PDH)

AMPP/SSPC Plural Component Application for Polyureas/High Solids Coatings Cert Program (1.5 CEU's)

AMPP/SSPC Bridge Coating Inspector Program (1&2) (3.7 CEU's)

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
Track 3 -	Entry-level knowledge development of	Works more independently on projects &	Expected to function at the journeyman
Inspector,	CPC skills for construction QA/QC/Cx	issues of greater scope & complexity. Builds	level & to fully function independently
Construction	oversight, safety & technical support.	upon knowledge gained at the basic level.	on assigned projects leveraging
Surveillance	Extensive training required to develop how CPC relates to building systems to include design geometrics. Beginner knowledge of coating application, cathodic protection, design geometrics and surface preparation is required.	Develops ability to interpret plans & specifications, RFP, & construction cost issues. Knowledge of Building Systems & associated CPC vulnerabilities & best practices. Must translate standard construction practice & evaluate and perform QA on various contract delivery methods to ensure that CPC is addressed in the completed design & project.	specialized expertise gained through years of experience & knowledge development. CPC knowledge & skills application for the advanced level employee is key to successful provision of QA/QC/Cx & technical oversight of construction projects. Supervision & management oversight, as well as various CPC-related certifications, may be required at this level.
	DAU CLM 038 <sup>3</sup> Corrosion Prevention and Control Overview (1CLP)	AMPP/SSPC Fireproofing Inspector eCourse (.8 CEU's)	AMPP/SSPC Master Coatings Inspector Program (CEU's NA; Special Certification)
	AMPP/NACE Basic Corrosion (3.6 CEU)	AMPP/SSPC Fundamentals of Protective Coatings <sup>1</sup> (3.8 CEU's)	AMPP/SSPC Concrete Coating Inspector Program (3.8 CEU's but varies)
	DoD Corrosion Fundamentals - WBDG.org (1 PDH)	AMPP/SSPC Lead Paint Removal (Intermediate) (3.0 CEU's)	AMPP/SSPC Planning/Specifying Industrial Coatings Projects (Advanced) (3.9 CEU's)
	AMPP/NACE Industrial Coatings Application e-Course (4 Modules with differing PDH levels)	AMPP/SSPC Lead Paint Worker Safety <sup>1</sup> (.8 CEU's)	AMPP/SSPC Bridge Coating Inspector Program-Levels 1 and 2 (Advanced) (3.7
	DoD Corrosion Courses available on WBDG. org:	AMPP/SSPC Quality Control Supervisor (Intermediate) (1.5 CEU's)	CEU's)  AMPP/SSPC Bridge Maintenance-
	<ul> <li>DoD Corrosion Fundamentals (1 PDH)</li> <li>DoD Coating Courses (1 PDH each module)</li> </ul>	AMPP/SSPC Thermal Spray Inspector Training (Intermediate) (.8 CEU's)	Conducting Coating Assessments (Advanced) (3.7 CEU's)
	Module 1 – Coating Fundamentals	AMPP/SSPC Industrial Coating Safety Management (2.4 CEU's) <sup>1</sup>	AMPP/NACE CP Interference (4.8 CEU's) (Prerequisite: CP 3 (5.1 CEU's) Certification recommended)

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
	<ul> <li>Module 2 – Coating Selection, Types,</li> </ul>	AMPP/NACE Coatings in Conjunction with	AMPP/NACE Marine Coating Technology
	Performance, and the Environment	Cathodic Protection (3.8 CEU's)	(Prerequisite: CIP Level I (4.9 CEU's); CIP
	(Under development)		Level II (4.9 CEU's) (Recommended)
	<ul> <li>Module 3 - Surface Preparation,</li> </ul>	AMPP/NACE Offshore Corrosion Assessment	
	Application of Coatings, and Coating	Training (3.8 CEU's)	AMPP/NACE Internal Corrosion for
	Degradation and Failures (Under		Pipelines-Advanced (3.4 CEU's)
	development)	AMPP/NACE Inline Inspection (part of Pipeline	
		Corrosion Integrity Management Program) (3.4	AMPP/NACE Direct Assessment (of Pipeline
		CEU's)	Integrity) (3.4 CEU's)
		AMPP/NACE Internal Corrosion for Pipelines-Basic1 (3.8 CEU's)	AMPP/NACE Senior Corrosion Technologist
		AMPP/NACE Corrosion Prevention and Control	
		Management e-Course	
		The state of the s	
		DoD Corrosion Courses available on WBDG.org:	
		CPC Facilities Life Cycle (Under development)	
		(1 PDH)	
		DoD Cathodic Protection Basics (1 PDH)	
		• DoD Waterfront & Coastal Structures (1 PDH)	
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Table 1 Facilities Corrosion Knowledge Proficiency Tracks

	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
Track 4 – /	Developmental Designer learning how	Can apply intermediate-level CPC knowledge	Consistent with employee development
Designer v	various aspects of the design process comes	to the development of the facility design to	goals & requirements, this level might
(Architect, t	together. Includes coordination with other	include identification of the CPC	include the requirement to be a PE/RA,
Engineer,	disciplines, gathering design data,	requirement, selection/editing of the	DAIWIA Level 3, and become an
Other Design   r	researching criteria, codes, WBDG & other	appropriate criteria (UFC, UFGS) to achieve	"expert" in their discipline area. CPC
<b>Professional</b> ) s	sources of information from the WBDG	life-cycle expectations.	knowledge should be commensurate with
and /	NDBM. Develops CPC knowledge to		that level of expertise & is required to
Project/Desig   e	establish how best to fit into the design		collaborate project design elements with
n Manager p	process for life-cycle expectations.		other disciplines to accurately achieve
			required levels of CPC consistent with
			life-cycle expectations.
Γ	DAU CLM 038 Corrosion Prevention and	AMPP/SSPC Lead Paint Removal (Intermediate)	AMPP/SSPC Planning/Specifying Industrial
C	Control Overview (1CLP)	(3.0 CEU's)	Coatings Projects (Advanced) (3.9 CEU's)
A	AMPP/NACE Basic Corrosion (3.6 CEU's)	AMPP/DoD Utilities and Buried Structures -	AMPP/NACE Marine Coating Technology
		WBDG.org (1 PDH)	(3.1 CEU's) (Prerequisite: CIP Level I (4.9
	AMPP/NACE Industrial Coatings Application	AMEDICA DE LA LA CARLA CONTRA LA CONTRA CONT	CEU's); CIP Level II recommended (4.9
e	e-Course (4 Modules with differing PDH levels)	AMPP/SSPC Lead Paint Worker Safety <sup>1</sup> (.8 CEU's)	CEU's)
ı	DoD Corrosion Courses available on WBDG.	AMPP/NACE Coatings in Conjunction w/	AMPP/NACE Direct Assessment (of Pipeline
o	org:	Cathodic Protection (3.8 CEU's)	Integrity) (3.4 CEU's)
•	= = = = = = = = = = = = = = = = = = =	AMPP/SSPC Fundamentals of Protective Coatings <sup>1</sup> (3.8 CEU's)	AMPP/NACE Senior Corrosion Technologist
	○ Module 1 – Coating Fundamentals	AMPP/SSPC Basics of Steel Surface Preparation <sup>1</sup>	
	○ Module 2 – Coating Selection, Types,	(.8 CEU's)	
	Performance, and the Environment		
	(Under development)	AMPP/SSPC Concrete Coating Application	
	o Module 3 - Surface Preparation,	Specialist (CCAS) (3.0 CEUs)	
	Application of Coatings, and Coating Degradation and Failures (Under	AMPP/SSPC Planning and Specifying Industrial	
	development)	Coatings Projects e-Course (Basic) <sup>1</sup> (3.8 CEU's)	
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Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
		AMPP/NACE Pipeline Corrosion Assessment Field	
		Techniques (3.4 CEU's)	
		AMPP/NACE Internal Corrosion for Pipelines –	
		Basic (3.8 CEU's)	
		AMPP/NACE Corrosion Prevention and Control	
		Management e-Course	
		DoD Corrosion Courses available on WBDG.org:	
		DoD Utilities and Buried Structures (1 PDH)	
		DoD Cathodic Protection Basics (1 PDH)	
		DoD Waterfront & Coastal Structures (1 PDH)	
		CPC Facilities Life Cycle (Under development)	
		(1 PDH)	

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
Track 5 -	Sustainment Engineer, Architect Manager	Has developed professional competencies at	Consistent with employee development
Sustainment	learning how various aspects of the	the Basic Level; can apply intermediate level	goals & requirements, this level might
(Engineer,	facilities management process come	CPC knowledge to the sustainment &	include the requirement to be a PE/RA,
Architect	together. Includes developing an	maintenance management of the facility to	DAIWIA Level 3, & become an "expert"
Manager)	understanding of the building trades and	include identification of CPC deficiencies &	in their discipline area. CPC knowledge
	engineering disciplines. Research job	requirement & development of solutions.	should be commensurate with that level
	orders, maintenance processes, CPC	Coordinates contract requirements with	of expertise & is required to collaborate
	techniques, & scheduling of projects;	acquisition professionals to include	sustainment actions with engineering &
	gathers maintenance & design data,	recommending criteria (UFC, UFGS) &	architectural disciplines, acquisition
	research criteria, codes, WBDG & other	industry best practices for life-cycle	professionals & construction & project
	sources of sustainment information.	expectations.	oversight to accurately achieve required
	Develops CPC maintenance knowledge for		levels of CPC consistent with life-cycle
	life-cycle expectations.		expectations.
	DAU CLM 038 Corrosion Prevention and	AMPP/SSPC Fundamentals of Protective Coatings	
	Control Overview (1CLP)	(3.8 CEU's)	
	AMPP/NACE Basic Corrosion (3.6 CEU's)	AMPP/SSPC Project Mgmt. for Industrial Painting Contractor (1.5 CEU's)	
	AMPP/SSPC Marine Coatings (Basic) (3.1		
	CEU's)	AMPP/SSPC Industrial Coating Safety Management (2.4 CEU's) <sup>1</sup>	
	AMPP/SSPC Basics of Steel Surface Preparation		
	(.8 CEU's)	AMPP/SSPC Planning and Specifying Industrial Coatings Projects e-Course (3.9 CEU's)	
	AMPP/SSPC Ground Vehicle		
	Corrosion/Protective Coatings (3.8 CEU's)	AMPP/SSPC Lead Paint Removal (Intermediate) (3.0 CEU's)	
	DoD Corrosion Courses available on WBDG.		
	org:	AMPP/SSPC Lead Paint Worker Safety (.8 CEU's)	
	<ul> <li>DoD Corrosion Fundamentals (1 PDH)</li> <li>DoD Coating Courses (1 PDH/each module)</li> </ul>	AMPP/SSPC Quality Control Supervisor (Intermediate) (1.5 CEU's)	

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
	<ul> <li>Module 1 – Coating Fundamentals</li> <li>Module 2 – Coating Selection, Types,</li> <li>Performance, and the Environment</li> </ul>	AMPP/NACE Coatings in Conjunction with Cathodic Protection (3.8 CEU's)	AMPP/SSPC Planning/Specifying Industrial Coatings Projects (Advanced) (3.9 CEU's)
	(Under development)  o Module 3 - Surface Preparation, Application of Coatings, and Coating Degradation and Failures (Under	AMPP/NACE Inline Inspection (3.4 CEU's) (part of Pipeline Corrosion Integrity Management Program)	AMPP/SSPC Plural Component Application for Polyureas/High Solids Coatings (1.5 CEU's)
	development)	AMPP/NACE Corrosion Prevention and Control Management e-Course	AMPP/NACE CP Interference (4.8 CEU's) (Prerequisite: CP 3 Certification recommended (5.1 CEU's))
		<ul> <li>DoD Corrosion Courses available on WBDG.org:</li> <li>DoD Utilities and Buried Structures (1 PDH)</li> <li>DoD Cathodic Protection Basics (1 PDH)</li> </ul>	AMPP/NACE Pipeline Corrosion Integrity Management (3.4 CEU's)
		<ul> <li>DoD Waterfront &amp; Coastal Structures (1 PDH)</li> <li>CPC Facilities Life Cycle (Under development) (1 PDH)</li> </ul>	AMPP/NACE Marine Coating Technology (3.1 CEU's) (Prerequisite: CIP Level I (4.9 CEU's); CIP Level II (4.9 CEU's) recommended)
			AMPP/NACE Direct Assessment (3.4 CEU's) (of Pipeline Integrity)
			AMPP/NACE Senior Corrosion Technologist

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
Track 6 -	Entry level/basic knowledge development	Works more independently on projects &	Expected to function at the journeyman
Sustainment	of CPC skills. Extensive training is required	issues of greater scope & complexity. Builds	level & to fully function in an
Field	to develop how CPC relates to building	upon knowledge gained at the basic level. Can	independent manner on assigned
Professional	systems to include design geometrics.	apply intermediate-level CPC knowledge to	projects, leveraging special expertise
(Tradesman,	Specific beginner knowledge of coating	the sustainment & maintenance management	gained through years of experience &
Planner,	application, cathodic protection, design	of the facility, to include identification of the	knowledge development. CPC knowledge
Estimator)	geometrics and surface preparation is	CPC deficiencies & requirement &	& skills application for the advanced level
	required. Research job orders, maintenance	development of solutions. Develop ability to	employee is key to the successful creation
	processes, CPC techniques, & scheduling of	interpret plans & specifications, RFP, time	of CPC solutions, project planning &
	projects, research criteria, codes, WBDG	requirements, construction cost issues &	estimating to ensure the delivery of
	and other sources of CPC sustainment	construction trades interaction. Has	quality, timely and accurate project work.
	information. Develops CPC knowledge to	knowledge of Building Systems (waterfront	Supervision & management oversight as
	conduct maintenance actions for life-cycle	structures, building envelopes, utilities & fire	well as various CPC related certifications
	expectations.	protection) & the appropriate CPC interfaces.	maybe required at this level.
	DAU CLM 038 Corrosion Prevention and	AMPP/SSPC Basics of Steel Surface Preparation (.8	AMPP/SSPC Master Coatings Inspector
	Control Overview (1CLP)	CEU's)	Program (CEU's NA; Special Certification)
	AMPP/NACE Basic Corrosion (3.6 CEU's)	AMPP/SSPC Fireproofing Inspector eCourse (.8 CEU's)	AMPP/NACE PCS (Protective Coatings) 2 – Advanced (2.3 CEU's)
	AMPP/NACE Industrial Coatings Application		
	e-Course (4 Modules with differing PDH levels)	AMPP/SSPC Concrete Coating Application Specialist (CCAS) (3.0 CEUs)	AMPP/NACE CP Interference (4.8 CEU's) (Prerequisite: CP 3 Certification (5.1 CEU's) -
	AMPP/SSPC Fireproofing Applicator (1.5	AMDD/CCDC Fundamentals of Drotestive Costings	recommended)
	CEU's)	AMPP/SSPC Fundamentals of Protective Coatings <sup>1</sup> (3.8 CEU's)	AMPP/NACE Internal Corrosion for
	AMPP/SSPC Ground Vehicle	(5.0 GEO 3)	Pipelines – Advanced (3.4 CEU's)
	Corrosion/Protective Coatings (3.8 CEU's)	AMPP/SSPC Thermal Spray Training (.8 CEU's)	114/411004 (011 020 0)
	320 0)		AMPP/NACE Direct Assessment (of Pipeline
	DoD Corrosion Courses available on WBDG.	AMPP/SSPC Thermal Spray Inspector Training	Integrity) (3.4 CEU's)
	org:	(Intermediate) (.8 CEU's)	
			AMPP/NACE Senior Corrosion Technologist
	DoD Corrosion Fundamentals (1 PDH)	AMPP/SSPC Surface Prep & Paint Application for Power Tool Cleaning Operators & Brush/Roll	

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
	DoD Coating Courses (1 PDH/each module)      Module 1 Coating Fundamentals	Paint Applicators Certification (Intermediate) (.7 CEU's)	
	<ul> <li>Module 1 – Coating Fundamentals</li> <li>Module 2 – Coating Selection, Types,</li> <li>Performance, and the Environment</li> </ul>	AMPP/SSPC Industrial Coating and Safety Management (2.4 CEU's)	
	<ul> <li>(Under development)</li> <li>Module 3 - Surface Preparation,</li> <li>Application of Coatings, and Coating</li> <li>Degradation and Failures (Under</li> </ul>	AMPP/NACE PCS (Protective Coatings) 1 – Basic Principles¹ (2.3 CEU's)	
	development)	AMPP/NACE Coatings in Conjunction with Cathodic Protection (3.8 CEU's)	
		AMPP/NACE Pipeline Corrosion Assessment Field Techniques (3.4 CEU's)	
		AMPP/NACE Offshore Corrosion Assessment Training (3.8 CEU's)	
		AMPP/NACE Inline Inspection (part of Pipeline Corrosion Integrity Management Program) (3.4 CEU's)	
		AMPP/NACE Internal Corrosion for Pipelines – Basic (3.8 CEU's)	
		AMPP/NACE Corrosion Prevention and Control Management e-Course	
		<ul> <li>DoD Corrosion Courses available on WBDG.org:         <ul> <li>DoD Utilities and Buried Structures (1 PDH)</li> <li>DoD Cathodic Protection Basics (1 PDH)</li> <li>DoD Waterfront &amp; Coastal Structures (1 PDH)</li> </ul> </li> <li>CPC Facilities Life Cycle (Under</li> </ul>	
		CPC Facilities Life Cycle (Under development) (1 PDH)	

Table 1 Facilities Corrosion Knowledge Proficiency Tracks

Tracks	Level: Basic or General Knowledge	Level: Intermediate	Level: Advanced
Track 7 – Acquisition Professional	Foundational understanding & knowledge of how & why CPC fits into acquisition, RFP & project specifications; basic knowledge of contract divisions, UFC, UFGS, WBDG, & their CPC applicability.	Ability to apply intermediate level CPC knowledge into acquisition documents to include editing of UFGS & selection & leveraging of criteria to achieve desired levels of CPC for the life cycle.	In-depth knowledge level of CPC to include critical thinking, problem solving, & ability to apply CPC requirements to various scenarios to ensure strong performance- based contract results in the completed facility to achieve life-cycle expectations.
	AMPP/NACE Basic Corrosion (3.6 CEU's)  AMPP/NACE Industrial Coatings Application e-Course (4 Modules with differing PDH levels)  DoD Corrosion Courses available on WBDG. org:  DoD Corrosion Fundamentals (1 PDH)  DoD Coating Fundamentals (1PDH)	AMPP/SSPC: Planning/Specifying Industrial Coatings Projects (Basic) (3.8 CEU's)  AMPP/SSPC Lead Paint Removal (Intermediate) (3.0 CEU's)  AMPP/SSPC Lead Paint Worker Safety (.8 CEU's)  AMPP/NACE Corrosion Prevention and Control Management e-Course  DoD Corrosion Courses available on WBDG.org:	AMPP/SSPC: Planning/Specifying Industrial Coatings Projects (Advanced) (3.9 CEU's)
		<ul> <li>CPC Facilities Life Cycle (Under development)         <ul> <li>(1 PDH)</li> </ul> </li> <li>DoD Waterfront &amp; Coastal Structures (1 PDH)</li> <li>DoD Cathodic Protection Basics (1 PDH)</li> </ul>	

- 1. For a complete synopsis of each course listed in the Table, please consult the associated WBDG.org, AMPP.org websites or other course comparable offerings. Note that several of these courses are prerequisites for certifications required in WBDG,ORG UFC and UFGS Criteria.
- 2. Although these course offerings are labeled as 'Basic' in their titles or course descriptions, we regard them as more functional and more appropriately targeted to a particular industry or narrow professional specialization. Therefore, we have included them in the 'Intermediate' level category.
- 3. See <u>WBDG Continuing Education</u> (Login account required and is available to government, military, industry, and contractors) (Note: For CPC Coursework select "DOD" under the "Sponsor" search (there is no charge for the WBDG.org courses).
- *4.* DAU CLM 038 *Corrosion Prevention and Control Overview* (1CLP) is <u>not</u> applicable to the Facilities Community. It is based on the Systems Engineering process which does not follow the facilities process. It does, however, provide some basic corrosion insights.

# Column and Row Headings Defined:

- 1. Track 1: CPC Foundation Knowledge
  - a. Fundamental knowledge and proficiency level based upon job requirements. This Track provides an understanding of basic principles and procedures in the various areas of corrosion, prevention and control.
- 2. Track 2: Subject Matter Expert
  - a. This Track provides opportunities for the facilities professional who needs to have an established certification level in the specific subject matter area such as Coatings Inspection, Cathodic Protection, etc., to accomplish his or her job.
- 3. Track 3: Inspector, Construction Surveillance
  - a. This track provides government construction representatives with essential skills in CPC to be able to perform effective Quality Assurance. Additionally, the contractor's Construction Quality Control person must be proficient in these areas as well. QA, CQC, and Commissioning plans are dependent upon this knowledge.
- 4. Track 4: Designer (Architect, Engineer, Other Design Professional) and Project/Design Manager
  - a. This track provides the design professional insights into the appropriate CPC technical, knowledge in order to establish requirements and articulate that into the Plans and Specifications.
  - b. Translating the knowledge gained from this track is critical to achieving both the desired life cycle and quality in the finished project.
- 5. Track 5: Sustainment (Engineer, Manager)
  - a. The Sustainment Engineer/Manager is faced with the daily task of CPC problem identification and solving.
  - b. This Track provides insights into the types of resources that are available in order for the Sustainment Engineer/Manager to be more successful in identifying and resolving CPC deficiencies, as well as implementing improvements.
  - c. If the Sustainment Engineer/Manager is a government employee, this level of knowledge will provide insights into managing CPC for both the government and contract maintainers.
- 6. Track 6: Sustainment Field Professional (Tradesman, Planner, Estimator)
  - a. The Sustainment Field Professional is faced with the daily task of CPC problem identification, solution development, and, in many cases, actually accomplishing corrective actions.
  - b. This Track provides insights into what types of specific knowledge are available to assist in making the Sustainment Field Professional more successful.
  - c. If the Sustainment Field Professional is a government employee, this level of knowledge will provide insights into CPC for both government and contract maintainers.

- 7. Track 7: Acquisition Professional
  - a. This Track provides the Acquisition Professional the knowledge and skills needed to manage CPC contract requirements. This includes identification of the appropriate UFC (Unified Facilities Criteria) and UFGS (Unified Facilities Guide Specifications) as well as in the editing of the UFGS's that are selected.
  - b. This knowledge and awareness will assist in ensuring that appropriate levels of quality and deliverables are identified in the contract.

**Levels Defined**: These levels are relative to the individual and the requirement. The intent is to distribute the complexity and detail of the courses in such a way as to show a progression from basic knowledge of CPC to a more advanced functional level of proficiency. Professional Licensing (PE/RA etc.) will draw upon the courses shown in the three levels to satisfy local, state, and government requirements to obtain and sustain registration requirements.

- 1. Basic or General
- 2. Intermediate
- 3. Advanced

## **Training Opportunities Contacts**

For AMPP/SSPC and AMPP/NACE training information please visit
 <a href="https://www.ampp.org/education">https://www.ampp.org/education</a> for more information and contact Jennifer Merck at
 <a href="mailto:merck@sspc.org">merck@sspc.org</a> or 412-281-2331, extension 2221.

### WBDG Training Resources

- WBDG DoD Training
- WBDG CPC Source Competencies
- <u>WBDG Continuing Education</u> (Login account required and is available to government, military, industry, and contractors) Note: For CPC Coursework select "DOD" under the "Sponsor" search, and, there is no charge for the WBDG.org courses.