



Engineering Procedure

SAEP-316

31 July 2016

Performance Qualification Requirements of Coating Personnel

Document Responsibility: Project Quality Standards Committee

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Revised paragraphs are indicated in the right margin

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1 Scope

- 1.1 This Saudi Aramco Engineering Procedure (SAEP) specifies the minimum mandatory qualification and certification requirements for personnel associated with protective coatings activities.
- 1.2 This SAEP applies to all contractors, working under Saudi Aramco Plant Maintenance and Projects Construction Departments, and other personnel associated to protective coatings work.
- 1.3 This SAEP is applicable to all coating personnel within-Kingdom performing coating related activities for Saudi Aramco, in shop or field.

2 Conflicts and Deviations

- 2.1 Any conflicts between this procedure and other applicable Saudi Aramco Engineering Standards (SAESs), Materials System Specifications (SAMSSs), Standard Drawings (SASDs), or industry standards, codes, and forms shall be resolved in writing to the Project Quality Standards Committee Chairman (PQSC).
- 2.2 Direct all requests to deviate from this standard in writing to the Company Representative, who shall forward such requests to Manager, Inspection Department of Saudi Aramco, Dhahran according to the internal company procedure SAEP-302.

3 Applicable Documents

The following documents are referenced in this procedure:

➤ Saudi Aramco References

Saudi Aramco Engineering Procedure

SAEP-302

Instructions for Obtaining a Waiver of a Mandatory Saudi Aramco Engineering Requirement

Saudi Aramco Engineering Standards

SAES-H-001

Coating Selection and Application Requirements for Industrial Plants and Equipment

SAES-H-002

Internal and External Coatings for Steel Pipelines and Piping

SAES-H-002V

Saudi Aramco Data Sheets

SAES-H-003

Protective Coatings for Industrial Concrete Structures

<i>SAES-H-004</i>	<i>Protective Coating Selection and Application Requirements for Offshore Structures and Facilities</i>
<i>SAES-H-101</i>	<i>Approved Protective Coating Systems for Industrial Plants & Equipment</i>
<i>SAES-H-101V</i>	<i>Approved Saudi Aramco Data Sheets - Paints and Coatings</i>
<i>SAES-H-102</i>	<i>Safety Requirements for Coating Applications</i>
General Instruction	
<i>GI-0006.021</i>	<i>General Instruction Manual</i>

4 Definitions

APCS: Approved Protective Coatings Systems.

Certified Coatings Inspector: A qualified person who has proven knowledge and experience to inspect/ evaluate protective coating applications and who has fulfilled Saudi Aramco requirements according to this SAEP.

Certified Coatings Inspector, Level I: A Saudi Aramco or contractor employee, who has been certified in accordance with this SAEP, and is able to perform the following:

- a) Determine if specified coating application requirements have been met.
- b) Knowledge of the applicable Saudi Aramco H series standards and other coating specifications.
- c) Operates inspection equipment for coating testing to verify compliance to stated requirements.
- d) Inspects surface preparation and coating application.
- e) Familiar with inspection procedures for industrial coating application.

Certified Coatings Inspector, Level II: A Saudi Aramco or contractor employee who is certified in accordance with the requirements of this SAEP, capable of performing following in addition to the functions of a Level-I Coatings Inspector:

- a) Providing instructions and general supervision to Level I coatings inspectors.
 - b) Responsible for compliance to specification for protective coating work on Saudi Aramco facilities. He is knowledgeable and experienced to select a coating specification appropriate to operating conditions.
 - c) Capable to write job specification and Defect Notification (formerly Worksheets) for coating materials and application
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- d) Provide early warning and solve potential quality issues by providing an appropriate analysis and corrective recommendations to avoid reoccurrence.
- e) Capable of inspecting all the APCS system as described in SAES-H-001/002/003/004 standards.
- f) Possess adequate knowledge and experience to certify blasters and applicators.
- g) Review and evaluate Contractor's records and inspection reports for accuracy and adequacy together with Saudi Aramco qualification certificates of Crew Supervisor, Abrasive blasters and Critical coating applicator.

Coating Applicators: Personnel involved in the application of protective coating for industrial facilities and pipeline. This includes, but is not limited to, abrasive blasters, coating applicators, and their immediate crew supervisors.

PIESU: Project Inspection Support Unit which is responsible for administering the performance qualification of coating personnel (Inspection Department/Inspection Support Service Division/PIESU).

Industrial Coating: Any of the Approved Protective Coatings Systems (APCSs) described in SAES-H-001 and SAES-H-101V.

Pipeline Coating: Any of the Approved Protective Coatings Systems (APCSs) for onshore or subsea pipelines described in SAES-H-002V and SAES-H-002.

PIU: Plant Inspection Unit

Qualification Examiner: Saudi Aramco personnel specifically designated by the Manager of Inspection Department to examine, test, and recommend certification of Coatings Inspectors, in accordance with [Section 6](#) of this SAEP. The qualification examiner must be at least a NACE Level II coating inspector or equivalent and has minimum 5-years of coating inspection experience.

5 General Requirements

5.1 All personnel involved in following activities shall be qualified and certified to perform their tasks according to this SAEP.

- Equipment and material receiving inspection
 - Calibration Verification.
 - surface preparation and inspection
 - coating application
 - supervision of coating application
 - coating inspection
-

- evaluation of coating failure
- analysis and issuing of Defect Notification (DN)

It shall be administered by the Project Inspection Support Unit (**PIESU**) of the Inspection Department.

- 5.2 All protective coatings application personnel shall be qualified, certified, and identified with a Coating Certification Card prior to the start of work in accordance with [Section 6](#) of this SAEP.
- 5.3 The Coating Certification Card should indicate all information specified in [Appendix G](#).
- 5.4 The Coating Certification Card shall be tracked in the SAP system. When properly signed and issued, it shall be valid for protective coating work until one of the following event occurs:
- a) The card's expiration date is overdue
 - b) The card holder failed to renew the certification per [paragraph 5.8](#).
- 5.5 Third Party Training Company certification (NACE, SSPC or equivalent) or Saudi Aramco approved coating supplier for the type of coating to be applied.
- 5.6 Meet requirements in [Appendix H](#) relevant to the personnel job title and qualification.
- 5.7 Recertification
- 5.7.1 Coating Applicators shall be recertified by testing per [Section 5](#) of this SAEP every 36 months.

Commentary Note:

Coating applicator can be re-certified for 36 month if he will work in similar coating system however continuity record is required to prove his performance.

- 5.7.2 Coatings Inspectors Level-I and Level-II certifications are valid for 36 months.
- 5.7.3 Certification and Recertification of Inspector Level-I is administered utilizing a computer based examination and site practical test.
- 5.7.4 Recertification of coating inspector Level-II shall be administered as follows:
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- 5.7.4.1 The first renewal after 36 months does not require examination. The inspector shall provide documents, attested by his supervisor, to prove that he has been performing coating inspections on a regular basis throughout his previous certification period. Coating Inspectors whose certification has expired shall cease to conduct inspections until they have successfully recertified.
- 5.7.4.2 The second renewal after 6 years requires the Inspector to attend refresher course, and pass a written examination.
- 5.7.5 Testing for certification or recertification is limited to three attempts. A minimum of one-month interval is required between attempts. In case of failure after the third examination, personnel shall take a full training course on CTG-300 or CIP 100 or equivalent prior to be accepted for retest.
- 5.7.6 If anyone fails a recertification test, a refresher course must be completed before further retest is allowed.
- 5.7.7 Maximum of six months is allowed between the refresher course and written examination.
- 5.8 Protective coating Inspection and application personnel certification may be revoked if, at any time, a Certified Coating Inspector Level II (or higher authority) determines unsatisfactory work performance. In that case, concerned personnel will be asked to retest. Failures to pass the retest shall be handled as outlined in [Paragraph 5.7.4](#).
- 5.9 A Contractor who is certified as Coating Inspector Level II by PIESU is not authorized to certify his company blasters, applicators, and crew supervisor.

6 Qualification Procedure and Test Requirements

- 6.1 Coating Inspectors – Level I and Level II
- 6.1.1 Evaluation and examination of candidates for Coating Inspectors shall be administered by a qualified examiner from the Inspection Engineering Unit (IEU PIESU). Details of test documentation are contained in [Section 7](#). The examination may be terminated immediately if the applicant fails to satisfactorily progress through the test sequence.
- 6.1.2 Coatings inspectors certified in accordance with this SAEP shall be qualified to inspect either pipeline coatings or both industrial and pipelines' coatings based on the scope of certification. (PIESU) will

inform the employee's supervisor of the type of examination required. Coatings applicators personnel shall be certified either for industrial coatings per this SAEP or for pipeline renovation coatings per [Section 7](#). Coating applicators certified for both industrial and pipeline renovation coatings shall meet the requirements of this SAEP.

6.1.3 The Coating Inspector candidate shall be interviewed by the PIESU Qualified Examiner to review his training and confirm his experience and overall capability to perform the tasks of a Certified Coatings Inspector. The interview will be initiated after receipt of application using SAP role as per [Appendix A](#). As a minimum, the qualified candidate shall meet all of the following:

- a) Be able to read, write, and speak English with ITC completion of Level 7B or equivalent. This is required for Level I and Level II.
- b) Visual acuity (normal or corrected).
- c) Completion of two years of inspection experience, with one year as independent coating Inspector.
- d) Meet the qualifications listed in Appendices [B](#) and [C](#) for either Saudi Aramco or contractor coating inspector Level I or Level II.

6.1.4 The Coating Inspector candidate shall take and pass a written examination:

The Qualification PIESU Examiner will arrange a written examination for all inspection personnel requesting certifications either to Level I or II coating inspector.

The examination for the Level II Coating Inspector shall include, but not limited to, relevant Saudi Aramco and industry coating standards, materials, surface preparation, application techniques, quality control, and applicator testing. It shall also include the items in Sections [6.2](#), [6.3](#), [6.4](#) and [7.1](#).

The examination for Coating Inspectors Level I will be based on a reduced scope and depth.

For those primarily involved with pipeline coating systems (APCS 100 through APCS 113 A,B,C), at least 50% of the questions will be asked about pipelines coating systems including both shop and field applied coatings.

For those involved primarily with industrial coatings, 70 to 80% of the questions will be asked about inspection of industrial coating systems including both shop and field applied coatings.

A minimum score of 80% is required to pass the examination.

6.1.5 Satisfactorily demonstrate coating inspection skills to Examiner.

6.2 Coating Crew Supervisor

6.2.1 Performance qualification testing and certification for the Crew Supervisor shall be supervised by a Certified Coating Inspector Level II, as defined by this procedure.

6.2.2 Qualification procedure for the Crew Supervisor for industrial coating jobs shall be administered by a Certified Coating Inspector Level II. (See [Section 7](#) and [Appendix B](#) for Crew Supervisor qualification requirements of pipeline's renovation coatings). It shall include:

6.2.2.1 An orientation session including an interview of the candidate's, previous work history, training, experience and capabilities. The candidate must have proper understanding of the relevant Saudi Aramco standards, procedures, and minimum requirements.

6.2.2.2 The Crew Supervisor candidate must demonstrate, to the Certified Coatings Inspector Level II, his understanding of applicable specifications and Saudi Aramco standards. Evaluation of the Crew Supervisor shall include an assessment of his ability to:

- a) Exhibit a working knowledge of [SAES-H-002](#) and interpretation of [SAES-H-002V](#), [SAES-H-001](#), [SAES-H-101V](#), [SAES-H-003](#), and [SAES-H-004](#).
 - b) Communicate and supervise his crew and report to Saudi Aramco representatives as and when required.
 - c) Understand and apply the safety requirements per [SAES-H-102](#).
 - d) Set up, maintain, and troubleshoot blasting and coating equipment.
 - e) Demonstrate his capability to properly establish compressor capacities and establish air and blast hose sizes that will achieve satisfactory nozzle pressures.
 - f) Demonstrate how to inspect moisture and oil separators and how to ensure that the delivered air quality is free of oil, moisture, or other contamination.
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- g) Recognize minimum and maximum blast profiles per applicable APCS specifications.
- h) Use proper solvent and detergent cleaning techniques.
- i) Use proper materials and mixing techniques.
- j) Instruct personnel regarding importance of air and metal temperatures, relative humidity, dew point, wind, and other factors affecting successful application.
- k) Demonstrate spray pattern control for different applications, ensures that the right application tool is used for particular APCS application, well versed with airless spray / plural component machines, knowledgeable about different types of paint system and their properties and application techniques, potlives, etc.
- l) Adhere to proper time intervals between successive coating's s as established by Saudi Aramco Standards and or manufacturer's specifications.
- m) Use wet and dry film thickness gauges; conduct relative humidity tests; make adhesion checks; perform holiday testing; detect coating defects and take proper corrections.

6.3 Abrasive Blaster

- 6.3.1 Performance qualification testing and certification for Abrasive Blaster shall be supervised by a Certified Coating Inspector Level II, as defined in this procedure.
 - 6.3.2 The qualification procedure for Abrasive Blaster personnel for industrial coatings shall consist of both oral examination and practical demonstration of his job knowledge and skills. (See [Section 7](#) and [Appendix B](#) for Abrasive Blaster qualification requirements for pipeline renovation coatings). He shall perform and demonstrate his job knowledge, manual skills, and ability to self-evaluate the results of his work, to the satisfaction of the Certified Coating Inspector Level II and in presence of the Crew Supervisor.
 - 6.3.3 The candidate for Abrasive Blaster shall be able to demonstrate to:
 - a) Set up abrasive blasting equipment.
 - b) Know when and how to properly use safety equipment and adhere to the basic safety requirements per [SAES-H-102](#).
 - c) Demonstrate hand signaling techniques.
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- d) Properly set up forced ventilation equipment for work in confined spaces.
- e) Demonstrate how to ground equipment to prevent shock or static electrical discharge.
- f) Select properly sized nozzle and hose assemblies to achieve correct air pressure and proper flow of abrasives.
- g) Adhere to cleanliness requirements for metal before, during, and after blasting, knowledgeable in different types of abrasives and metal surfaces, geometry of surfaces to be blasted and fittings to use to achieve required cleanliness and profiles.
- h) Recognize and differentiate between blast finishes; recognize and correct blasting deficiencies.

6.3.4 The candidate for Abrasive Blaster shall perform a blasting test on an area designated by the Certified Coating Inspector Level II. The minimum and maximum allowable anchor pattern(s) shall be established by the Coating Inspector Level II before blasting commences. The completed test area shall be within the specified anchor pattern(s) range(s) and finish(es). The results shall be verified with direct measuring and or comparative techniques.

6.4 Coating Applicator

- 6.4.1 Performance qualification testing and certification for Coating applicator shall be administered by a valid certified Coating Inspectors Level II, as defined in this procedure.
 - 6.4.2 Coatings applicator performance testing shall be conducted with equipment supplied by the contractor or maintenance organization whose employee is taking the test. Testing shall take place on a suitable testing area or job site acceptable to the Coating Inspector II. Preferably, onsite equipment will be used for an actual job. Testing shall not be conducted if the equipment is improper, inadequate, or defective.
 - 6.4.3 The qualification procedure for Coating Applicator shall consist of both oral examination and practical demonstration of the candidate's knowledge and skills. (See [Section 7](#) and [Appendix B](#) for the Coating Applicator qualification requirements for pipeline renovation coatings.) The applicator should demonstrate practical skills in each APCS for which he is seeking approval. Critical coatings like tank internals, pipeline internals, internal girth welding coating by robotic method, should be tested on actual structures. He shall demonstrate his job knowledge, manual skills, and ability to evaluate his work in presence of
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the Certified Coating Inspector Level II. This demonstration shall require a suitable job site or testing area, an approved equipment and direct attendance of the Crew Supervisor.

- 6.4.4 The candidate for Coatings Applicator shall be required to demonstrate his ability to:
- a) Set up and correctly select coating application equipment.
 - b) Know when and how to obtain emergency medical care.
 - c) Know when and how to properly use safety equipment and adhere to the basic safety requirements of SAES-H-102.
 - d) Demonstrate proper hand signaling techniques.
 - e) Properly set up forced ventilation equipment for work in confined spaces.
 - f) Demonstrate how to install a proper ground equipment to prevent shock or static electrical discharge.
 - g) Properly mix critical coatings.
 - h) Adhere to cleanliness requirements for the material before coating.
 - i) Use properly sized nozzle and hose assemblies to achieve correct air pressure and proper flow of coating materials.
 - j) Know spray equipment requirements and demonstrate proper spraying techniques.
 - k) Use wet film and dry film gages.
 - l) Recognize and correct coating defects.
 - m) Knowledgeable of coating material under usage, its pot life, thinning, WFT & DFT requirements, weather condition restrictions, etc.
- 6.4.5 The candidate for Coatings Applicator shall be required to spray one or more strata of an epoxy (or alternative) coating on a designed test area approved by the Certified Coating Inspector Level II. Minimum and maximum wet and dry film thicknesses shall be established by the Certified Coating Inspector Level II before spraying commences. The finished test area shall be free of runs, sags, dry spray, and other unacceptable flaws. The achieved coating shall be within the specified thickness ranges and the candidate shall verify the thickness with wet film and dry film thickness gages.

7 Performance Qualification for Pipeline Renovation Coating Contractor and Maintenance Personnel

This section describes the performance qualification requirements for contractor and maintenance personnel doing repair or new construction pipeline, field or shop, coatings work for Saudi Aramco. The purpose of this section is to provide a simplified approval procedure for contractors and maintenance personnel who will only be doing pipeline coatings work using an approved Saudi Aramco Coatings System SAES-H-002.

7.1 Scope

- 7.1.1 Personnel qualified under this section are authorized to perform only the specific coating systems recorded on their Certification Card and according to SAES-H-002 (pipelines and piping system, including supports and anchors).
- 7.1.2 This Section applies only to Crew Supervisors, Abrasive Blasters, and Coating Applicators.
- 7.1.3 Validity, recertification, and retesting requirements are the same as required for other skills in this SAEP.

7.2 General Requirements

- 7.2.1 Prior to request the coating certification test for their personnel to a Saudi Aramco Coating Inspector Level II, the contractor or maintenance shall provide evidence to the area Inspection Supervisor that the personnel are trained. This can be done by providing a certificate of attendance at an approved Third Party Training facility.
- 7.2.2 Performance testing shall be conducted with equipment supplied by the applicable maintenance or contractor, preferably the equipment that will be used on site. Testing shall not be conducted if the equipment is improper, inadequate, or defective.
- 7.2.3 Requirements for qualification documentation and records are similar with other skills in this SAEP.
- 7.2.4 The Coating Applicator Certification Cards issued to the qualified candidates shall be limited to the specific pipeline coating system(s) checked off on the card. For example:
 - (/) APCS-113A liquid
 - (/) APCS-113B putty

7.3 Crew Supervisor Qualification Requirements

7.3.1 The candidate must be able to communicate in English and understand the relevant APCS under SAES-H-002 including SAES-H-204.

7.3.2 The candidate must demonstrate his ability to:

7.3.2.1 Communicate with and direct his crew and converse with Saudi Aramco representatives.

7.3.2.2 Understand and comply with the safety requirements as per SAES-H-102 and must know how to handle emergency situations.

7.3.2.3 Set up, maintain, and trouble-shoot abrasive blasting and coating equipment, including establishing proper blast nozzle pressures, inspect moisture/oil separators, use proper solvent cleaning techniques, obtain correct surface profiles and cleanliness levels, establish correct spray patterns and able to gauge the proper timings to start blasting and consecutive coating application.

7.3.2.4 Demonstrate proper use of materials and techniques for mixing.

7.3.2.5 Demonstrate understanding of how the wind, air and metal temperature, relative humidity, dew point, and surface contaminants affect coatings performance.

7.3.2.6 Use wet and dry film thickness gauges; conduct humidity tests, make adhesion checks; detect coating defects, perform holiday testing and make timely corrections.

7.4 Abrasive Blaster Qualification Requirements

7.4.1 It includes both oral and practical examination. He must be able to demonstrate job knowledge, manual skills and ability to self-evaluate his work to the Certified Coating Inspector Level II. In the oral test, the candidate must demonstrate his knowledge on the following:

7.4.1.1 Safety requirements in SAES-H-102, Sections 4.1 (fire and explosion prevention), 4.3 (Health Hazards), and 4.4 Equipment Hazards).

7.4.1.2 Surface profile vs. coating performance.

7.4.2 In the practical test, the candidate shall be tested for:

7.4.2.1 Setting up the blasting equipment including proper grounding.

7.4.2.2 Demonstrate his knowledge of surface preparation with hand tool and power tool as per APCS, surface preparation requirement for maintenance coating.

7.4.2.3 Show hand signaling technique in case of emergency.

7.4.2.4 Blast a test area as directed by Certified Coating Inspector Level II. The level of cleanliness required and the minimum/maximum anchor profile shall be according to coating procedure and manufacturer specification. The completed test area shall be verified by measuring directly and/or comparative techniques.

7.5 Coating Applicator Qualification Requirements

7.5.1 Viscoelastic coating applicators candidates shall demonstrate their knowledge and abilities to the Certified Coating Inspector Level II by means of oral questioning and practical demonstration as follows:

7.5.1.1 Proper viscoelastic, primer, and outer wrap storage.

7.5.1.2 Ability to patch repair inspection windows, cut in the sleeves.

7.5.2 APCS-113 Coating Applicator candidates shall demonstrate their knowledge and abilities to the Certified Coating Inspector Level II by means of oral questioning and practical demonstration, as follows:

7.5.2.1 Understand and apply the safety requirements mentioned in SAES-H-102, Sections 4.1 (fire and explosion prevention), 4.3 (health hazards), and 4.4 (equipment hazards).

7.5.2.2 Set up, maintain, and trouble-shoot the coatings equipment, including inspecting moisture/oil separators, establishing correct nozzle pressure and establishing correct spray patterns.

7.5.2.3 Demonstrate proper use of materials and techniques for mixing 2 component coating system.

7.5.2.4 Demonstrate the effects of wind, air and metal temperature, relative humidity, dew point, and surface contaminants on the quality of coatings.

- 7.5.2.5 Use wet and dry film thickness gauges; conduct humidity tests, perform holiday testing, detect coating defects and make timely corrections.
- 7.5.2.6 The candidate shall be required to coat a test area designated by the Certified Coating Inspector Level II. The test area shall meet the requirements of APCS-113 and the Saudi Aramco Data Sheets for the product being applied. The candidate's certification card must specify only the type of coatings he was tested for and approved.

8 Qualification Documentation and Record

- 8.1 A Coating Applicator Qualification Report as per [Appendix D](#) of this SAEP shall be completed for each candidate by the Certified Coating Inspector Level II. For qualified Applicators, one photo shall be attached to the original Qualification Report, and another attached to the Coatings Certification Card per [Appendix B](#) of this SAEP. The Card shall specifically identify the type of work that the certification covers. The Card shall be signed by the Certified Coating Inspector Level II and his Inspection Unit Supervisor and be issued with a certification number and an expiration date. The Certified Coating Applicator shall carry his certification card at all time while on site and present for examination when asked. The original Qualification Report shall be filled and archived on the inspection unit's files for at least six (6) months after expiration of the card.
 - 8.2 A Coating Inspector Qualification Report shall be completed for each candidate and recorded in SAP as per [Appendix A](#). If candidate meets the requirements, PIESU will schedule, evaluate and score the written examination and arrange a practical test. The candidate's supervisor will be advised regarding the test results. A Coatings Inspector Certification Card, per [Appendix D](#) of this SAEP, will be prepared and issued by PIESU to each inspector that meets all requirements. The Card shall be laminated in plastic after being signed by the Qualified Examiner and the Supervisor, Operations Inspection Division. Each coatings inspector will be assigned a unique certification number that will be noted in his card. The Card shall be carried, or be available for examination at the work site at all times the Inspector is performing coatings inspection functions. The original Qualification Report with one photo shall be retained by the PIESU for at least two (2) years after expiration of the Card.
 - 8.3 To renew a Coating Inspector's Certification, PIESU must receive a SAP request that includes the conditions of recertification per [paragraph 5.7](#), from the Certified Coating Inspector's Supervisor. The request must contain information
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required for recertification, and shall be submitted through SAP as per [Appendix A](#).

Revision Summary

11 March 2015	Revised the Next Planned Update, reaffirmed the content of the document, and reissued as major revision.
31 July 2016	Editorial revision to transfer Unit responsibility from Inspection Engineering Unit (IEU) of OID to Projects Inspection Engineering Support Unit (PIESU) of ISSD. This transfer is internal within Inspection Department and is mutually agreed by the affected Division Heads.

Appendix A - SAP Roles

QM:ID:CERT02_IEU_EXAMINER	Coating	PIESU Coating Examiner	Users with this role can Create Application, Schedule Examination, Initiate Certification bypass exam, Initiate Certificate, Reschedule Test, Record Results, Reinstate Certificate, Revoke Certificate, Print Certificate for Coating Applicators, Coating Inspector Level I and Level II.	PIESU Coating Examiner assigned by Inspection Department
QM:ID:CERT03_CIN_INSPECTOR	Coating	Coating Inspector Level II	Users with this role can Create Application, Schedule Examination, Initiate Certificate, Reschedule Test, Record Results, Reinstate Certificate, Revoke Certificate, Print Certificate for Coating Applicators Also user with this role can create applications for Coating Inspector Level I.	Coating Inspector Level II
QM:ID:CERT11_CAP_DISPLAY	Coating	Coating Applicator Display	User with this role can only view Applications, Certifications and Examinations records of all coating Applicators	Any Saudi Aramco Employee
QM:ID:CERT12_CIN_DISPLAY	Coating	Coating Inspector Display	User with this role can only view Applications, Certifications and Examinations records of all coating Inspectors	Any Saudi Aramco Employee
QM:ID:CERT18_CIN_CREATE	Coating	Coating Application Creator	Users with this role can create applications for coating Applicator, inspector Level 1 and Level II.	Any Saudi Aramco Employee PIMT/PID

Appendix B - Qualification/Experience/Training Requirements and Certification Validity

Personnel	Pre-requisite	Experience	SA Approved 3 rd Party Training	In-house Training	Duration of In-house Training	Qualification	Validity
S.A. Coating Inspector Level I	English *Level 7B	2 years	N/A	CIP-100	N/A	**WE&PE	3 years
S.A. Coating Inspector Level II	English *Level 7B	5 years	N/A	CIP-100	N/A	**WE&PE	3 years
Contractor Coating Inspector Level I	Read & Write English	2 years	NACE CIP-I, SSPC –PCI- I,BGAS Grade-2 or equivalent	N/A	N/A	Interview	3 years
Contractor Coating Inspector Level II	Read & Write English	5 years	NACE CIP-II, SSPC –PCI- II,BGAS Grade-1 or equivalent	N/A	N/A	Interview	3 years
Crew Supervisor	Read & Write English	***3 years	(7-10 days)	Yes	7-10 days	**WE&PE	6 months – 3 years
Coating Applicator	High school or less	1 years	NACE or SSPC or equivalent	Yes	7-10 days	practical examination	6 months – 3 years
Abrasive Blaster	High school or less	1 years	NACE or SSPC or equivalent	Yes	7-10 days	practical examination	6 months – 3 years
Specialized Coating Applicator (specify area of)	High school or less	1 years	NACE or SSPC or equivalent	Yes	7-10 days	practical examination	6 months – 3 years

*For contractor Inspector Level I and Level II Read & Write English.

** written examination and practical examination

*** Min 3 year previous experience of abrasive blasting or coating application

Appendix C - Experience and Training Requirements

Level	Inspection Experience	Training
I	Two (2) years of inspection experience with at least completed one (1) year as independent coating inspector in industrial facilities.	Take and pass Corporate inspection coating program CTG 300 or CIP 100 Training modules presented by PEDD Department training group or present documentation for having equivalent coating related training. or Hold a SSPC PCI I or BGAS-CSWIP- II or NACE CIP Level 1 Certification (or equivalent).
II	Meet the requirements of a certified Level I coatings inspector plus have at least one (1) year of experience performing inspections independently as a Level I inspector or document that show equivalent experience.	Meets the requirements of Level one plus successfully complete a 40 hr. PE&TDD Paints, Coating and Protective Lining Course (or equivalent). or Hold a SSPC PCI II or CIP Level II Certification or BGAS-CSWIP- I (or equivalent).

Appendix D - Coatings Applicator Qualification Report

Name: _____

Badge No. _____ Organization _____

Mail Address _____

_____ Crew Supvr, _____ Abrasive Blaster, _____ Coating Applicator

_____ Industrial Coatings, _____ Pipeline Coatings

Experience Details: _____

Field Demonstration: _____

BLASTING TEST

APPLICATION TEST

Equip. Type _____

Type of Coating _____

Nozzle Size _____

Spray Equip. Type _____

Nozzle Pressure _____

Compressor Capacity _____

Type of Abrasive _____

Finish Req'ts _____

Finish Req'ts _____

Comments on Test Results: _____

Applicant has (passed or not passed) all requirements for a _____

_____ on Mo. _____ Day _____ Yr. _____

_____ Badge No. _____ Date _____

Certified Coatings Inspector Level II:

Appendix E - Saudi Aramco Coating Applicator Certification Card

FRONT OF CARD:

This certifies that:

CERTIFICATION NO.: _____

Name / ID No.: _____

Employer: _____

(PHOTOGRAPH)

Has satisfied the requirements of SAEP-316 governing certification of applicators of protective coatings and is authorized to perform all the functions indicated on the reverse side.

INSPECTION UNIT SUPERVISOR

Expiration Date: ___/___/___,
MMDD YY

BACK OF CARD:

QUALIFIED PER SAEP-316
TO PERFORM THE DUTIES OF:

- Crew Supervisor
- Abrasive Blaster
- Coating Applicator
- Robotic Operator

||

TYPE OF COATING QUALIFIED FOR:

- Industrial Coating (SAEP-316)
- Brush and Rollers
- Pipelines (Section 1, SAEP-316)
- APCS (specific)
- Concrete -H-003 Specially

||

||

Level II Coating Inspector Certification & Badge #

Date: ___/___/___
MM DD YY

Appendix G - Saudi Aramco Coatings Inspector Certification Card

FRONT OF CARD:

PHOTO

LEVEL

--OR--

LEVEL II

CERTIFICATE NO. _____

NAME /I.D. _____

ORGANIZATION _____

Has satisfied the requirements of SAEP-316 governing Certification of coating inspectors involved in protective coatings and is authorized to perform all functions indicated on reverse side.

SUPERVISOR-ID\ ISSD_PIESU_Supervisor

||

Expiration Date: ___/___/___,
MM DD YY

BACK OF CARD:

QUALIFIED PER SECTION 2.3 OF SAEP-316

LEVEL I To inspect coatings under the direction and general supervision of a Level II coatings inspector.

OR

LEVEL II INSPECT COATINGS AND CERTIFY AND QUALIFY APPLICATORS.

INDUSTRIAL COATINGS

PIPELINES & PIPING COATINGS

BLASTERS & APPLICATORS CERTIFIED

PER SECTION 4.2 of SAEP-316

Qualified Examiner Certification # Badge #

DATE ___/___/___
MM DD YY

Appendix H - Examination of Coating Inspector Roles and Responsibilities

1-A) Coating Inspector Level I

RASCI (Responsible, Accountable, Support, Consulted, and Informed) Table

No.	Activity Description	Inspection supervisor	Insp. Field Supervisor	Coating Inspector	OID/EIU Supervisor	ID/OID EIU Examiner
B.1.1	Complete the requirement of training of Level I as per Appendix C of SAEP-316 and Appendix A.	S	R		S	
B.1.2	Use SAP role as per Appendix A2 for application and approve the request from PIESU signed by IU/Supervisor.	S	A	R		
B.1.3	ISSD/ PIESU Examiner received the request.					R
B.1.4	Request accepted/schedule test date/reject. Notify requestor with results.		A	A		R
B.1.5	Conduct the test.					R
B.1.6	ISSD/ PIESU Supervisor approve the result if pass.			A	R	A
B.1.7	Issues card, up-date SAP if he pass.		A	A		R

Appendix H - Examination of Coating Inspector Roles and Responsibilities (Cont'd)

1-B) Coating Inspector Level II
 RASCI (Responsible, Accountable, Support, Consulted, and Informed)

No.	Activity Description	Inspection supervisor	Insp. Field Supervisor	Coating Inspector	ISSD/ PIESU Supervisor	ID/ ISSD/ PIESU Examiner
B.2.1	Complete the requirement of training of Level I as per Appendix A of SAEP-316 and Appendix A.	S	R		S	
B.2.2	Use SAP role as per Table 2 for application and approve the request from IU supervisor (SAEP-316) and signed by IU/Supervisor	S	A	R		
B.2.3	ISSD/ PIESU Examiner received the request.					R
B.2.4	Request accepted/schedule test date/reject. Notify requestor with results.		A	A		R
B.2.5	Conduct the test.					R
B.2.6	ISSD/ PIESU SUPERVISOR approve the result if pass			A	R	A

Appendix H - Examination of Coating Inspector Roles and Responsibilities (Cont'd)

2-A Coating Inspector Level I

RASCI (Responsible, Accountable, Support, Consulted, and Informed)

No.	Activity Description	Inspection Supervisor	Insp. Field Supervisor	PIU/Coating Inspector Level II	Main/PMT Rep	ID/ISSD/PIESU Examiner
B.3.1	Complete the requirement of Appendix A-1 of SAEP-316 and submit the request to PIU or PID supervisor.					
B.3.2	PIU will assign coating inspector Level II to administered, qualification and certified.	S	S	A	A	
B.3.3	PIU coating inspector Level II received the original request and schedule for test.			R	A	
B.3.4	Notify requestor, issues card if he pass.		A	R	A	
B.3.5	Notify requestor, if he pass.		A	R	A	
B.3.6	Update the tracking.	A	A	R	A	A