

CLEANING AND PAINTING EXISTING STEEL STRUCTURES

Most Resident Engineers understand the importance of paving and steel or concrete placement as it relates to maintaining our infrastructure, but have less understanding of the importance of coatings. While aesthetics may be the primary reason for applying coatings in the eyes of the public, the fundamental reason that our structures are painted is to prevent corrosion. Without a properly installed protective coating, the design life of the structures will not be realized, and there is risk of catastrophic failure due to corrosion.

Similar to the structure itself, the coatings have a design life. In order to achieve the required life and performance of the coating, the surfaces must be prepared to exacting standards and the coatings applied under controlled conditions and within specific tolerances. Unlike the lead based coating systems of the past, modern coating materials require much more care during installation in order to perform. The presence of lead in the existing coating adds further complications to the project when it is removed. There are a myriad of regulations that must be met for the protection of the public and the environment. Elaborate containment systems must be installed and maintained together with environmental monitoring and special controls over the handling and disposal of the waste. All aspects of painting have become a very complex process.

Fortunately, we have detailed Special Provisions that identify all of the necessary quality and environmental controls for removing existing coatings and installing new systems. Detailed Quality Control inspection forms are available that the contractors must complete together and Quality Assurance forms that are used by our Paint Technicians when overseeing the activities. By closely following the Special Provisions and assuring that the defined monitoring and inspection activities are performed, we have good assurance that the integrity of our structures will be preserved. A great deal of information can also be obtained by consulting with your Paint Technicians, who have had special training in surface preparation, painting, and environmental compliance. The Paint Technicians also have available a manual with additional information which may answer many questions.

The following forms are referred to in the Special Provision. Proper completion of the forms will allow the Department to best manage and analyze the performance of the paint systems we use.

FORM [BBS 2557](#), PRE PROJECT ENVIRONMENTAL SUBMITTAL REVIEW CHECKLIST

This form may be used by the Resident Engineer, normally in conjunction with the pre – construction conference, to assist in the compilation and evaluation of the Contractor’s environmental submittals. It is an organizational aid to assist the RE with the multitude of submittals required to perform this work according to the specifications and although its use is not mandatory it is recommended.

FORM [BBS 2558](#), PRE PROJECT PAINTING SUBMITTAL REVIEW CHECKLIST

This form may be used by the Resident Engineer, normally in conjunction with the pre – construction conference, to assist in the compilation and evaluation of the Contractor’s painting submittals. It is an organizational aid to assist the RE with the multitude of submittals required to perform this work according to the specifications and although its use is not mandatory it is recommended.

FORM BBS 2559, CONTRACTOR ENVIRONMENTAL DAILY REPORT

This form must be completed by the Contractor for every scheduled workday of the project, whether or not work is being performed. This Form is a 2 page checklist with comments sections, and is used to provide a uniform means for the Contractor to document compliance with the containment, environmental protection, and waste handling requirements of the specification on a daily basis throughout the course of the project. ([Detailed instructions below.](#))

FORM BBS 2560A, NON-CONFORMANCE REPORT

This form is used by the QA Inspector to document and track work activities that do not comply with the requirements of the project specification. It is used to identify a nonconforming condition, provide recommended corrective action, and to verify that the corrective action was implemented. Note that this report is issued to resolve specific non-conforming situations. The resolution does not automatically apply to the remainder of the project unless specifically stated so in other documents (e.g., change order or revision to the specification). ([Detailed instructions below](#))

FORM BBS 2560B, NON-CONFORMANCE LOG

This form is used by the QA Inspector to track the nonconforming item(s) on the Nonconformance Report(s) (Form [BBS 2560A](#)) until the item has been resolved and closed.

A copy of this Nonconformance Log should be maintained on the job site for the duration of the project. ([Detailed instructions below.](#))

FORM BBS 2561, CONSTRUCTION INSPECTOR PROJECT START UP CHECKLIST

This form is used by the Inspector at project start up to make certain that all required submittal items and equipment/materials are onsite. Note that while this report is completed only one time for each project, it may not be finalized in a single day (i.e., it may take a few days for all of the requirements to be met). ([Detailed instructions below.](#))

FORM BBS 2562, CONSTRUCTION INSPECTOR DAILY(QA) REPORT

This form is prepared by the IDOT QA Inspector to provide a uniform means to document quality assurance inspections of Contractor's compliance with the surface preparation, painting, containment, environmental protection, and waste handling requirements of the specification on a daily or periodic basis throughout the course of the project. ([Detailed instructions below.](#))

FORM BBS 2563, CONTRACTOR DAILY(QC) REPORT

This form must be completed by the Contractor for every scheduled workday of the project, whether or not work is being performed. This Form consists of 3 pages. The pages are divided into various sections for the documentation of inspections that are conducted by Contractor's QC personnel. Extra pages can be attached to provide additional documentation (e.g., specific dry film thickness readings) or for drawings. Drawings should be used when possible to show specific work locations and to track the progress of the major phases of work across the bridge. ([Detailed instructions below.](#))

FORM BBS 2559, CONTRACTOR ENVIRONMENTAL DAILY REPORT**1. Purpose**

- 1.1 To provide a uniform means for the Contractor to document compliance with the containment, environmental protection, and waste handling requirements of the specification on a daily basis throughout the course of the project.

2. Scope

- 2.1 This procedure describes the completion of the Contractor Environmental Daily Report (Form BBS 2559).

3. General Report Requirements

- 3.1 The Contractor Environmental Daily Report (Form BBS 2559) is a 2 page checklist with comments sections.
- 3.2 This form must be completed for every scheduled workday of the project, whether or not work is being performed. For example, if work is cancelled due to inclement weather, complete the top section of the report and note in the comments section that no work was performed due to inclement weather.
- 3.3 Complete the form in permanent blue ink, in a neat, professional manner.
- 3.4 Submit the original report to the IDOT representative and maintain one copy in a jobsite file. Submit each day's report to IDOT prior to the start of work the following morning.
- 3.5 Complete all lines of the checklist each day. For each item, check "Yes" if it is satisfactory, "No" if unsatisfactory, or "NA" if it does not apply to the project or to the work performed that day. If an item is checked "No," identify the corrective action taken in the Comments section.

4. Instructions for Completing Contractor Environmental Daily Report (Form BBS 2559)**4.1 General Information**

- 4.1.1 Contractor – Name of the company performing the surface preparation and coating application work.
- 4.1.2 Bridge ID – Bridge number and/or name.
- 4.1.3 Location – Route number and mile marker or other appropriate designation.
- 4.1.4 Contract No. – IDOT Contract Number for the specified work.
- 4.1.5 Report Number – A unique, sequential number assigned to each report. The Report Number is unique to the day in which the work takes place rather than the shift as explained in the two examples below:

Example 1 – Single shift work. When the work involves a single shift, the report number assigned to the first day at the start of the job (e.g., Monday) is #1, Tuesday is report #2, Wednesday is report #3, and the numbering continues sequentially through the end of the project.

Example 2 – Multiple shift work. When the work involves two shifts, with a different Inspector on each shift, each Inspector completes his/her own report. The report for the first day at the start of the job (e.g., Monday) completed by the day shift Inspector would be report #1 followed by a suffix (e.g., D for day shift). The report completed for the Monday night shift Inspector would also be report #1 since the work takes place on the same day, but it will be followed by a different suffix (e.g., N for night shift). Both Inspectors would complete report #2 for their work on Tuesday (with the D or N suffix), and so forth.

- 4.1.6 Date – The date of the work shift.
- 4.1.7 Contractor QC Start/Stop Time – Enter the time the Inspector starts and stops work for the day or shift.
- 4.1.8 Crew Start/Stop Time – Enter the time the crew starts and stops work for the day or shift.
- 4.2 #1 – Identify containment class specified. Report the class of containment specified for the work. Example: Class 1A.
- 4.3 #2 - Does the containment comply with specification & approved drawings? Verify that the containment is installed and maintained according to the specification requirements and approved drawings. If it does not comply (e.g., tarpaulins are worn, allowing debris to escape) check “No” and describe the problem and the corrective action taken.
- 4.4 #3 – Are the containment joints sealed as specified? Verify that the joints are sealed according to the specification requirements and approved drawings. If there was a problem with the seals during the shift, check “No” and describe the problem and the corrective action taken.
- 4.5 #4 – Is the ventilation system functioning properly? – If the containment requires the use of a dust collector, verify that the dust collector is functioning properly and that the make up air openings and ductwork are intact and functional. If there were problems with the ventilation system during the shift, check “No” and describe the problem and the corrective action taken.
- 4.6 #5 – Is the ground properly covered beneath the areas being cleaned? – Verify that the ground beneath the work areas is covered to collect inadvertent spills of debris. If there were problems with the ground covers during the shift, check “No” and describe the problem and the corrective action taken.
- 4.7 #6 – Is all surface preparation debris being captured for disposal? – Verify that the surface preparation media (e.g., abrasive), rust, mill scale, paint chips, and other debris that is generated are being captured and collected for proper disposal. If there was a problem with the collection of the debris as specified, check “No” and describe the problem and the corrective action taken.
- 4.8 #7 – Is all wash water being captured for disposal? – Verify that all bridge wash water and dislodged paint chips and debris are being captured and collected for proper disposal. If there was a problem with the collection of the water and debris, check “No” and describe the problem and the corrective action taken.
- 4.9 #8 – If spills occurred, were they cleaned-up per spec and approved plans? – If spills occurred, acknowledge it here. If they were cleaned up properly, check “Yes.” If

- there was a problem with the clean up (e.g., rain water carried some of the debris away before it could be collected), check “No.” If spills did not occur, check “NA.” If “Yes” or “No” are checked, describe the problem and the corrective action taken.
- 4.10 #9 – Are visible emissions controlled according to specification? – Verify that visible emissions from dust-producing operations are controlled according to the specification requirements. If emissions exceeded the specification limits during the shift, check “No” and describe the problem and corrective action taken.
- 4.11 #10 – Are regulated areas established at the AL and physically demarcated? – Verify that the regulated areas have been established at the OSHA Action Level (AL) and that visible barriers (e.g., ribbons and signs) are in place. If the regulated areas are not properly set up and designated, check “No” and describe the problem and corrective action taken.
- 4.12 #11 – Is ambient air monitoring performed per spec and approved plans? – Verify that all specified high volume ambient air monitoring is being performed according to the specification and approved plans. This includes monitor location and operation, calibration, documentation, and handling of filters. If the monitoring activities were not in compliance during the shift, check “No” and describe the problem and corrective action taken.
- 4.13 #12 – Are ambient filters sent to the laboratory at the specified frequency? – Verify that the filters from the high volume ambient air monitors are being sent to the laboratory at the specified frequency. If the filters were not sent according to schedule, check “No” and describe the problem and corrective action taken.
- 4.14 #13 – Are hand wash and shower facilities present and working properly? – Verify that all required hand wash and shower facilities are on site, properly equipped, and fully operational. If the hand wash and shower facilities are not in compliance during the shift, check “No” and describe the problem and corrective action taken.
- 4.15 #14 – Is the area outside of containment free of debris at the end of the day? – Verify that debris (with the exception of debris controlled within the containment) is removed from the work site by the end of the work day. If debris is not cleaned up at the end of the day, check “No” and describe the problem and corrective action taken.
- 4.16 #15 – Is clean-up conducted by hand or by HEPA vacuuming? Verify that clean up is accomplished by hand and/or HEPA vacuuming. If other methods are used, check “No” and describe the methods and corrective action taken.
- 4.17 #16 – Is waste handling and storage according to IEPA regulations? Verify that jobsite handling and storage comply with IEPA waste regulations. If the regulations are not being followed, check “No” and describe the variation.
- 4.18 #17 – Is all collected waste stored in approved containers? Verify that all waste is stored in containers approved by the Department. If the containers are not approved, check “No” and describe the corrective action.
- 4.19 #18 – Are waste containers kept closed except when adding waste? Verify that waste containers are closed at all times they are not in use. If the containers are open, check “No” and describe the corrective action.
- 4.20 #19 – Is the storage area secured (e.g. to prevent entry/tampering)? – Verify that the storage is properly protected to prevent vandalism, unauthorized access to the

- waste, or tampering. If the site is not secure (e.g., waste stored in drums without protective measures such as fencing), check “No” and describe the storage conditions and the corrective action taken.
- 4.21 #20 – Are the containers examined weekly for breaks or deterioration? – Verify that the storage containers are examined weekly for breaks or deterioration (e.g., corrosion) and that a log of the inspections is maintained. If the inspections are not being performed or the results are not logged, check “No” and describe the corrective action.
- 4.22 #21 – Are all containers labeled as to their content, accumulation dates, etc.? – Verify that waste containers are properly labeled. If unlabeled containers of waste are on-site, check “No” and describe the problem and corrective action taken.
- 4.23 #22 – Is all wastewater filtered through a multi-stage filter? – Verify that the specified water filtration system is on-site, that it is functioning properly and is being used. If the water is not being filtered, or the equipment is not operational during the shift, check “No” and describe the problem and corrective action taken.
- 4.24 #23 – Is hazardous waste stored less than 90 days? – Verify that the hazardous waste is transported from the site in less than 90 days after the start of accumulation. If the waste is onsite for longer than 90 days, check “No” and describe the corrective action.
- 4.25 #24 – At the time of final blast cleaning, has waste transporter been given advance notification for final pick up? The purpose is to give the waste transporter ample notice before project completion that a pick up is due in order to assure that waste is removed from the site prior to demobilization. If notice is not provided, check “No” and provide an explanation.
- 4.26 #25 – Are hazardous waste shipments manifested? – Verify that all shipments of hazardous waste are accompanied by a signed manifest. If a manifest was not used, check “No” and describe the corrective action.
- 4.27 #26 – Is all other waste removed according to Federal, State, and local regulations? – Verify that all other waste is transported and disposed of according to applicable Federal, State, and local regulations. If the waste is improperly transported/disposed, check “No” and describe the corrective action.
- 4.28 #27 – Is a waste accumulation inventory table being maintained? – Verify that a waste accumulation inventory table is prepared showing the number and size of waste containers filled each day, the amount of waste shipped in a given day, and the dates of shipment. If the inventory table is not being maintained, check “No” and describe the corrective action.

5. General Comments

- 5.1 The General Comments can be used to identify other pertinent information or to provide greater detail on any of the checklist items.

6. Signature Section

- 6.1 Contractor QC Inspector and Resident Engineer/Paint Technician Signatures – no explanation necessary.

FORM BBS 2560A, IDOT NON-CONFORMANCE REPORT
and
FORM BBS 2560B, IDOT NON-CONFORMANCE LOG

1. Purpose

- 1.1 To describe a standardized form that is used by the QA Inspector to document and track work activities that do not comply with the requirements of the project specification.

2. Scope

- 2.1 This procedure defines a nonconformance and describes the completion of the Nonconformance Report (Form **BBS 2560A**) in order to identify a nonconforming condition, provide recommended corrective action, and to verify that the corrective action was implemented.
- 2.2 Note that the NCR is issued to resolve specific non-conforming situations. The resolution does not automatically apply to the remainder of the project unless specifically stated so in other documents (e.g., change order or revision to the specification).

3. Definitions

- 3.1 A Nonconformance is a condition that differs from the Contract Plans, Specifications, or approved Drawing requirements, and which cannot be brought into conformance with the requirements or accepted without an engineering disposition.
- 3.2 Example 1. The specification requires SSPC SP10 Near White Metal. The Contractor leaves paint and mill scale on the surface. When discovered, the Contractor conducts additional blast cleaning and the surface is improved to SP10 prior to painting. An NCR would not be generated under these conditions because the surface cleanliness complied with the specification at the time of painting.
- 3.3 Example 2. In Example 1 above, when the rust and paint are discovered, the Contractor refuses to conduct additional blast cleaning. He applies the prime coat. An NCR would be issued to address the insufficient quality of blast cleaning. Since the primer has been applied, it is no longer possible to achieve the specified degree of cleanliness. An engineering disposition is required that will either mandate that the surface be re-cleaned and repainted, that the surface preparation be accepted as is despite the presence of the paint and mill scale, or some other resolution (e.g., accept as is with extended warranty).

4. Reporting and Tracking Non conformances

- 4.1 Obtain concurrence from the Resident Engineer before initiating a nonconformance report.

4.2 When it is agreed that the situation is a nonconformance, document the item(s) in the comments section of the Construction Inspector Daily QA Oversight form (Form [BBS 2562](#)), and on the Nonconformance Report (Form [BBS 2560A](#)).

4.3 Track the nonconforming item(s) on the Nonconformance Report Log (Form [BBS 2560B](#)) until the item has been resolved and closed.

4.3.1 Enter the appropriate information in each block depending on status of the nonconformance.

4.3.2 Maintain one (1) Nonconformance Log (Form [BBS 2560B](#)) for the duration of the project.

5. **Guideline for Completing the Nonconformance Report (Form [BBS 2560A](#))**

5.1 Enter all the general information on the top portion of the report. Generate a unique NCR tracking number for each nonconformance.

5.2 Nonconformance Description

5.2.1 Enter a detailed description of the nonconformance. Be certain to include the specific location of the nonconformance.

5.2.2 Controlling document or drawing - Reference the specification page and paragraph title, drawing number (e.g., containment drawing), or the appropriate governing document.

5.2.3 **Example** – The re-coat time for the intermediate prior to applying the finish coat in span 1 was exceeded by 30 days.

5.3 Cause of Nonconformance

5.3.1 Identify the cause of the nonconformance. Provide factual information, rather than conjecture.

5.3.2 **Example** – The project was shut down for 45 days due to emergency repairs to another bridge, causing all traffic to be diverted over this structure.

5.4 5.4 Recommended Steps to Resolve Nonconforming Situation

5.4.1 Discuss the situation with the Resident Engineer and generate the steps that are recommended for resolving the problem. Note that the recommended steps at this stage involve the contacts that should be made and the data that should be collected in order to ultimately arrive at an engineering solution for the problem (i.e., the ultimate solution, such as pressure washing the coating, is not addressed at this stage).

5.4.2 **Example** – The Contractor should contact the coating manufacturer for written recommendations on the suitability of the surface for re-coating, including recommended methods of surface preparation.

- 5.4.3 Provide the Contractor with a copy of the NCR as completed through this stage.
- 5.5 Recommended Disposition and Basis for Disposition.
 - 5.5.1 Based on the information received in response to the “Recommended Steps,” provide the recommended disposition for resolving the nonconformance and the rationale for that position. Check the appropriate block (rework, repair, use as is, or reject)
 - 5.5.2 **Example** – Based on the attached (date) letter from the coating manufacturer and recommendations from Materials, the surface can be overcoated after it has been thoroughly cleaned of grease, oil, diesel smoke, chalk and other surface interference material using low pressure water according to SSPC-SP12 and solvent cleaning according to SSPC-SP1. Check the “rework” block.
 - 5.5.3 Sign the block entitled “Signature of Dispositioner.” Forward the form to the Resident Engineer who will sign the block entitled “Approval of Disposition by.”
 - 5.5.4 Provide the Contractor with a copy of the NCR as completed through this stage.
- 5.6 Corrective Action Taken
 - 5.6.1 Report the action taken by the Contractor.
 - 5.6.2 **Example** – The surface was thoroughly cleaned of all surface interference material using potable water at 3,500 psi.
- 5.7 Action to Prevent Nonconformance Recurrences
 - 5.7.1 Enter a descriptive comment regarding how the Contractor plans to prevent the nonconformance from occurring in the future.
 - 5.7.2 **Example** – The emergency repairs responsible for the problem have been finished and the control of the schedule is back in the hands of the Contractor.
- 5.8 Corrective Action Verified by
 - 5.8.1 Complete and sign this section to indicate that the corrective action was successfully performed.
 - 5.8.2 Circle “yes” indicating that the nonconformance is closed.
 - 5.8.3 Obtain the signature of the Resident Engineer as well.
- 5.9 Close out
 - 5.9.1 Close out the item in the Nonconformance Log (Form [BBS 2560B](#)) by filling in “date closed.”
 - 5.9.2 Maintain copies of the NCR on file and provide a copy of the final NCR to the Contractor, and the Resident Engineer.

FORM BBS 2561, CONSTRUCTION INSPECTOR PROJECT START UP
and
FORM BBS 2562, CHECKLIST AND DAILY QA OVERSIGHT

1 Purpose

- 1.1 To provide a uniform means for IDOT personnel to document quality assurance inspections of Contractor's compliance with the surface preparation, painting, containment, environmental protection, and waste handling requirements of the specification on a daily or periodic basis throughout the course of the project.

2 Scope

- 2.1 This procedure describes the completion of IDOT Construction Inspection QA forms:
- 2.1.1 Form BBS 2561 – Construction Inspector Project Start Up Checklist
 - 2.1.2 Form BBS 2562 – Construction Inspector Daily QA Oversight

3 General Report Requirements

- 3.1 Form BBS 2561 is completed during the early phases of the painting project.
- 3.2 Form BBS 2562 is completed each day to document the daily painting and environmental oversight observations made by the QA Inspector.
- 3.3 Complete the forms in permanent blue or black ink in a neat, professional manner, or by typing.
- 3.4 Complete all lines of the applicable checklist.

4 Instructions for Completing – Construction Inspector Project Start Up Checklist (Form BBS 2561)

- 4.1 Complete this form at project start up to make certain that all required submittal items and equipment/materials are onsite. For each item, check "Yes" if the item is onsite and is satisfactory, "No" if it is not onsite or unsatisfactory, or "NA" if it does not apply to the project. Note that while this report is completed only one time for each project, it may not be finalized in a single day (i.e., it may take a few days for all of the requirements to be met).
- 4.2 General Information
- 4.2.1 Contractor – Name of the company performing the surface preparation and coating application work.
 - 4.2.2 Bridge ID – Bridge number and/or name.

- 4.2.3 Location – Route number and mile marker or other appropriate designation.
- 4.2.4 Contract No. – IDOT Contract Number for the specified work.
- 4.2.5 QA Inspector Name – no explanation necessary.
- 4.2.6 Signature – no explanation necessary.
- 4.3 #1. Special Provisions Reviewed? – Verify that the special provisions for the project have been reviewed by the Paint Technician. Also verify that the Contractor has a copy of the approved Special Provisions at the jobsite.
- 4.4 #2. Contractor Qualifications submitted? – Verify that the Contractor has submitted the following qualifications as applicable.
 - 4.4.1 a. QP1/QP2 certifications. Note that when the Painting Contractor is the General Contractor, these certifications will have been in place prior to the time of bid. If the Painting Contractor is a subcontractor, the certifications must be provided prior to the beginning of work.
 - 4.4.2 b. QC Manager qualifications – Verify that the qualification and experience requirements have been met.
 - 4.4.3 c. QC Technician qualifications – Verify that the training requirements have been met.
- 4.5 #3. Submittals onsite and reviewed? – Verify that the following items are present at the jobsite as applicable to the contract requirements:
 - 4.5.1 a. – Contractor's Quality Control (QC) Program – Verify that the QC Program that has been submitted and accepted for use by IDOT. The QC Program must identify the following: the instrumentation that will be used, a schedule of required measurements and observations, procedures for correcting unacceptable work, and procedures for improving surface preparation and painting quality as a result of quality control findings. The IDOT Paint Technician should retain a copy for future reference to verify that it is being implemented. It is often beneficial to review the document and use it as the basis for discussions with the Contractor QC Inspector during the performance of his/her inspection duties.
 - 4.5.2 b. – Contractor's Inspection Access Plan. – Verify that the Contractor's Inspection Access Plan is available in the field. Determine if the inspection access plan for use by Contractor QC personnel and by the Paint Technicians during Quality Assurance (QA) observations is adequate with regard to the actual jobsite conditions.
 - 4.5.3 c. – Contractor's Surface Preparation/Painting Plan. – Verify that the Contractor's Surface Preparation/Painting Plan is available to field personnel and it is applicable to the scope of painting work specified (i.e. not generic). The surface preparation/painting plan should include the methods of surface preparation and type of equipment to be utilized for washing, hand/power tool cleaning, removal of rust, mill scale, paint or foreign matter, abrasive blast or water jetting, and remediation of chloride. If detergents, additives, or inhibitors

are incorporated into the water, the Contractor must include the names of the materials and Material Safety Data Sheets (MSDS). Verify that the Contractor has identified the solvents to be used for solvent cleaning together with MSDS.

- 4.5.4 d. – Abrasive information. – Verify the Contractor has the product composition and MSDS's for the abrasive being used. Verify that it complies with specification requirements. For expendable abrasives, verify that the Contractor has provided certification from the abrasive supplier that the abrasive meets the requirements of SSPC-AB1. For steel grit abrasives, the certification must indicate that the abrasive meets the requirements of SSPC-AB3. Verify that the abrasives to be used for blast cleaning have a gradation such that the abrasive will produce a uniform surface profile of 38 to 90 microns (1.5 to 3.5 mils). Obtain a small sample for future reference.
- 4.5.5 e. – Contractor's Protective Covering Plan. - Verify that the Contractor's Protective Covering Plan is available to field personnel. Determine if the plan adequately addresses the specific site conditions where the work will be performed. Verify that tarpaulins or protective coverings being used are fire retardant.
- 4.5.6 f. – Progress Schedule - Verify that the Contractor has a project schedule for the specified work. Determine if it is current, and if not, request that it be updated to accurately identify the sequence and duration of work anticipated. Verify that the progress schedule identifies all major work items (e.g., installation of rigging/containment, surface preparation, and coating application).
- 4.5.7 g. – Contingency Plan - Verify that the Contingency Plan has been accepted and is present at the jobsite. Verify that the contingency plan for emergencies including fire, accident, failure of power, failure of dust collection system, failure of supplied air system or any other event that may require modification of standard operating procedures during lead removal is understood by responsible Contractor personnel. Determine if the plan is accurate in regard to emergency contact information, and adequately addresses potential emergency situations that might be encountered based on the site conditions (water, railroad tracks, public interactions, etc.).
- 4.5.8 h. – Containment Plan (Lead Projects Only). - Verify that the Containment Plan has been accepted by IDOT and is present at the jobsite.
- 4.5.9 i. – Environmental Monitoring Plan (Lead Projects Only). - Verify that the Environmental Monitoring Plan has been accepted by IDOT and is present at the jobsite. Verify that the Contractor QC Inspector understands the requirements for high volume ambient air monitoring (if applicable), visual inspections and clean up of the soil and water. Verify that daily visible emissions observations will be performed and that the corrective action that will be implemented in the event emissions or releases occur.
- 4.5.10 j. – Waste Management Plan (Lead Projects Only). - Verify that the Waste Management Plan has been accepted by IDOT and is present at the jobsite. Verify that responsible Contractor personnel understand all aspects of waste handling, storage, testing, hauling and disposal. It must include the names, addresses, and a contact person for the proposed licensed waste haulers and

disposal facilities. The name and qualifications of the laboratory proposed for Toxicity Characteristic Leaching Procedure (TCLP) analysis must also be identified.

- 4.6 #4. Contractor inspection equipment onsite? - Verify that the Contractor QC Inspector has the equipment required by specification:
- 4.6.1 Psychrometer or comparable equipment for the measurement of dew point and relative humidity, together with all necessary weather bureau tables or psychrometric charts.
 - 4.6.2 Surface temperature thermometer.
 - 4.6.3 Hypodermic Needle Pressure Gage for determining blasting pressure at the nozzle.
 - 4.6.4 SSPC Visual Standards VIS 1 for abrasive blast cleaning, VIS 3 for hand/power tool cleaning, VIS 4 for water jetting, and/or VIS 5 for wet abrasive blast cleaning, as applicable.
 - 4.6.5 Commercially available putty knife of a minimum thickness of 1mm (40 mils) and a width between 25mm and 75mm (1 and 3 in.). Note that the putty knife is only required for projects in which the existing coating is being feathered and must be tested with a dull putty knife.
 - 4.6.6 Testex Press-O-Film Replica Tape and Spring Micrometer.
 - 4.6.7 Bresle Cell Kits or CHLOR*TEST kits for chloride determinations, or equivalent.
 - 4.6.8 Wet Film Thickness Gage.
 - 4.6.9 Blotter paper and plate glass for compressed air cleanliness checks.
 - 4.6.10 Type 2 Magnetic Dry Film Thickness Gage per SSPC - PA2.
 - 4.6.11 Calibration standards for dry film thickness gage.
 - 4.6.12 Light meter.
 - 4.6.13 All applicable ASTM and SSPC Standards used for the work
- 4.7 #5. Specified coating materials onsite? – Verify that the materials comply with the specification and special provisions provided for the work. Determine if the color of the finish coat is correct, that the materials are not leaking, damaged, and have tight lids. Verify that coating manufacturer product data, application instructions, and MSD sheets are available for all coating materials and solvents and that the solvents are approved for use with the coating materials.
- 4.8 #6. Test sections prepared and accepted? - Verify that the Contractor has prepared a test section(s) on each structure to be painted in a location(s) which the Resident Engineer considers to be representative of the existing surface condition and steel type for the structure as a whole. Verify that the test section(s) are prepared using the same equipment, materials and procedures as the production operations. Verify

that the Contractor has prepared the test section(s) to the specified level of cleaning according to the appropriate SSPC visual standards, modified as necessary to comply with the requirements of the specification.

5 Instructions for Completing – Construction Inspector daily QA Oversight (Form [BBS 2562](#))

- 5.1 Complete this form daily to record the QA observations that are made. For each item, check “Sat” if it is satisfactory or “Unsat” if unsatisfactory. Enter “N/A” in the NA/NW column if the item does not apply or “NW,” not witnessed, if the item is applicable, but not witnessed or verified by the Paint Technician. If an item is checked “Unsat,” in the Comments section identify the problem and the corrective action taken.
- 5.2 General Information
- 5.2.1 Contractor – Name of the company performing the surface preparation and coating application work.
- 5.2.2 Bridge ID – Bridge number and/or name.
- 5.2.3 Location – Route number and mile marker or other appropriate designation.
- 5.2.4 Contract No. – IDOT Contract Number for the specified work.
- 5.2.5 Report Number – A unique, sequential number assigned to each report. The Report Number is unique to the day in which the work takes place rather than the shift as explained in the two examples below:
- Example 1 – Single shift work. When the work involves a single shift, the report number assigned to the first day at the start of the job (e.g., Monday) is #1, Tuesday is report #2, Wednesday is report #3, and the numbering continues sequentially through the end of the project.
- Example 2 – Multiple shift work. When the work involves two shifts, with a different Paint Technician on each shift, each Technician completes his/her own report. The report for the first day at the start of the job (e.g., Monday) completed by the day shift Paint Technician would be report #1 followed by a suffix (e.g., D for day shift). The report completed for the Monday night shift Paint Technician would also be report #1 since the work takes place on the same day, but it will be followed by a different suffix (e.g., N for night shift). Both Paint Technicians would complete report #2 for their work on Tuesday (with the D or N suffix), and so forth.
- 5.2.6 Date – The date of the work shift.
- 5.2.7 QA Inspector Name – No explanation necessary.
- 5.2.8 Signature – No explanation necessary.
- 5.3 #1. Access to jobsite – Verify that the access to the work site is suitable for the Contractor QC inspection and IDOT QA observations as required, including allowing ample time to view the work. Verify that the Contractor will furnish, erect and move

- scaffolding or other mechanical equipment to permit close observation of all surfaces to be cleaned and painted. Note: When the surface to be inspected is more than 1.8 m (6 ft) above the ground or water surface, the Contractor must provide IDOT personnel with a safety harness and a lifeline according to OSHA regulations.
- 5.4 #2. Contractor equipment? – Verify that all cleaning and painting equipment includes gauges capable of accurately measuring fluid and air pressures and have valves capable of regulating the flow of air, water or paint as recommended by the equipment manufacturer. Verify that the equipment is being maintained in proper working order. Verify that diesel or gasoline powered equipment are positioned or vented in a manner to prevent deposition of combustion contaminants on any part of the structure. Verify that hand tools, power tools, pressure washing, water jetting, abrasive blast cleaning equipment, brushes, rollers, and spray equipment are of suitable size and capacity to perform the work required by this specification. Verify that all power tools are equipped with vacuums and High Efficiency Particulate Air (HEPA) filtration. Verify that appropriate filters, traps and dryers are provided for the compressed air used for abrasive blast cleaning and conventional spray application. Verify that paint pots are equipped with air operated continuous mixing devices unless prohibited by the coating manufacturer.
- 5.5 #3. Protective coverings in place? – Verify that all portions of the structure that could be damaged by the surface preparation and painting operations (e.g., utilities), including any sound paint that is allowed to remain according to the contract documents, are protected by covering or shielding. Verify that tarpaulins drop cloths, or other materials or methods are employed to prevent paint drips, spills, and overspray from damaging items not specified to be painted.
- 5.6 #4. Lighting? – Verify that the Contractor is providing artificial lighting in areas where natural light is inadequate or insufficient to allow proper cleaning, inspection, and painting. Verify that illumination for inspection is at least 325 LUX (30 foot candles). Verify that illumination for cleaning and painting, including the working platforms, access and entryways is at least 215 LUX (20 foot candles).
- 5.7 #5. Weather conditions? – Verify that surfaces to be painted after cleaning remain free of moisture and other contaminants. Verify that the surface temperature is at least 3°C (5°F) above the dew point during final surface preparation operations. Verify that the Contractor QC Inspector is monitoring the temperature, dew point, and relative humidity every 4 hours during surface preparation and coating application in the specific areas where the work is being performed.
- 5.8 #6. Compressed air cleanliness? – Verify that prior to using compressed air for abrasive blast cleaning, blowing down the surfaces, and painting with conventional spray, the Contractor QC Inspector has verified that the compressed air is free of moisture and oil contamination according to the requirements of ASTM D 4285. Verify that the tests are being conducted at least one time each shift for each compressor system in operation.
- 5.9 #7. Washing for overcoating? (Hold Point) – Verify that washing prior to lead based paint overcoating involves the use of potable water at a minimum of 7 MPa (1000 psi) and less than 34 MPa (5000 psi) according to “Low Pressure Water Cleaning” of SSPC-SP12. Verify that water washing has removed dust, dirt, chalk, insect and animal nests, bird droppings and other foreign matter prior to any solvent cleaning and that the specified chalk tests have been performed. Verify that after washing has

- been completed, all traces of asphaltic cement, oil, grease, diesel fuel deposits, and other soluble contaminants have been removed by SSPC-SP1, supplemented with scraping (e.g., to remove large deposits of asphaltic cement) as required. Verify that the water, debris, and any loose paint removed by water cleaning is collected for proper disposal, and that the washing was completed no more than 2 weeks prior to subsequent surface preparation.
- 5.10 #8. Preparation for total coating removal? – Verify that if the Contractor uses water cleaning, all water and debris are collected for proper disposal. Verify that the tops of the pier caps and abutments are cleaned free of dirt, paint chips, insect and animal nests, bird droppings and other foreign matter and the debris and wash water collected for proper disposal.
- 5.11 #9. Removal of laminar/stratified rust? – Verify that all laminar and stratified rust that has formed on the existing steel surfaces are being removed. Verify that any rust remaining after cleaning the mating surfaces is tight and intact when examined using a dull putty knife.
- 5.12 #10. Abrasive type? – Verify that expendable abrasives meet the requirements of SSPC-AB1 and that recyclable steel grit abrasives meet AB3. Verify that the abrasives used for blast cleaning have a gradation such that the abrasive will produce a uniform surface profile of 38 to 90 microns (1.5 to 3.5 mils).
- 5.13 #11. Abrasive cleanliness (recycled)? – Verify that if recyclable abrasives are being used that the Contractor QC Inspector verifies that cleanliness according to AB3.
- 5.14 #12. Surface preparation? (Hold Point) – Verify that the surface preparation has been accomplished according to the requirements of the specification and special provisions. Verify that areas identified as deficient have been suitably reworked and are verified as acceptable prior to coating application.
- 5.15 #13. Surface profile? (Hold point) – Verify that the surfaces prepared by abrasive blast cleaning have a uniform surface profile of 38 to 90 microns (1.5 to 3.5 mils) unless the profile requirements of the coating manufacturer are more restrictive and have been approved by the Resident Engineer. If the surface has been power tool cleaned – commercial grade, verify that the surface profile is within the range specified by the coating manufacturer, but not less than 50 microns (2.0 mils).

- 5.16 #14. Soluble salt remediation? (Hold Point) – Verify that representative surfaces that were previously rusted (e.g., pitted steel) have remaining chloride levels no greater than 7µg/sq cm as read directly from the surface without any multiplier applied to the results. Verify that the frequency of chloride tests is according to the specification requirements.
- 5.17 #15. Surface condition prior to painting? (Hold Point) – Verify that the prepared surfaces, including shop primed steel, meet the requirements of the respective degrees of cleaning immediately prior to painting, are free of surface dust, debris, grease, oil, and diesel smoke, and are being painted before rusting appears on the surface.
- 5.18 #16. Materials, storage, and mixing? – Verify that paint is being stored according to manufacturer's instructions. Verify that all coatings are supplied in sealed containers bearing the manufacturers' name, product designation, batch number and mixing/thinning instructions, and that that thinning is performed only to the extent allowed by the manufacturer's written instructions and with the manufacturer's approved thinner.

Verify, that the batches of material have a Test ID Number or Approval Number indicating that Materials has approved the products.

The Test ID Number can be confirmed by looking up the batch number on the weekly MISTIC printout or by logging onto MISTIC itself. Make certain that the particular batches have been approved (i.e., even material that has failed will have a number representing it in the MISTIC system).

To access the report in the MISTIC system, open Report2Web which is located at <http://cocent1report1/r2w25/default.asp>. **Report2Web is only accessible to IDOT employees.** Note that you may need to select the button at the bottom of the page for "EnterReport2Web" and log in. If this occurs, use the same log in name and password that would be used to log onto the LAN system. Click on the "ReportList" and select "materials" from the top. The list of materials reports will be displayed. Select the "approved materials batch and lot" for the paint print out.

If you are unsuccessful, contact the Central Bureau of Materials and Physical Research Analytical laboratory Supervisor at 217/782-7218 for additional assistance.

- 5.19 #17. Coating application? – Verify that coatings are being applied in accordance with the coating manufacturers written instructions, including the application of stripe coats where specified.
- 5.20 #18. Overspray controlled, including containment, if applicable? – Verify that the contractor is controlling overspray, drips, and spills during application. Controls may include special containment materials or alternative methods of application such as brush and roller. Note that in some cases, the contract requires the use of the same surface preparation containment for the application of all coats.
- 5.21 #19. Wet film thickness for overcoating? – Verify that when the new coating is applied over an existing system, routine Contractor QC Inspections of the wet film thickness are being performed in addition to the painter's checks in order to establish that a proper film build is being applied.

- 5.22 #20. Re-coating/continuity/DFT. (Hold Point) – Verify that each coat of paint has been applied as a continuous film of uniform thickness free of defects including, but not limited to, runs, sags, overspray, dryspray, pinholes, voids, skips, misses, and shadow-through. Verify that coatings are dry for re-coating according to the time/temperature/humidity criteria provided in the manufacturer’s instructions.
- 5.23 #21. Repair of damage – Verify that the Contractor has repaired all damage to the newly installed coating system and areas concealed by the containment/protective covering attachment points. Verify that the surrounding coating at each repair location is being feathered for a minimum distance of 40 mm (1 1/2 in.) to achieve a smooth transition between the prepared areas and the existing coating.
- 5.24 #22. Stencils – Verify that the painting date and the paint code on the bridge have been applied to the bridge in the specified location. Verify that the letters are capitals, not less than 50 mm (2 in.) and not more than 75 mm (3 in.) in height. Verify that the stencil contains the following wording "PAINTED BY (INSERT THE NAME OF THE CONTRACTOR)" and shows the month and year in which the painting was completed, followed by the appropriate code for the coating material applied.
- 5.25 #23. Contractor QC documentation – Verify that the Contractor QC documentation is completed and is turned into the Resident Engineer before work resumes the following day. Verify that the documentation is complete and accurately represents the results of all quality control tests and observations performed.
- 5.26 #24. Emergency stop work per plans – Identify any conditions that occurred where the Contractor had to stop work due to emergency conditions as described under their Contingency Plan, or the “Site Emergencies” portion of the specification. If emergency stop work did not occur, check “NA.” If a stop work occurred, but was controlled according to plan, check “Sat.” If a stop work occurred, but was not handled according to plan, check “Unsat.” If “Sat” or “Unsat” are checked, describe the problem and the corrective action taken.
- 5.27 #25. Containment – Verify that the containment is installed and maintained according to the specification requirements and approved drawings (e.g., type of materials, entryway, cable sizes, dust collector and ventilation duct work sizes, etc.). Verify that the containment joints are sealed according to the specification requirements and approved drawings. If the containment is not according to the approved drawings, check “Unsat” and describe the problem and corrective action taken.
- 5.28 #26. Spills/releases controlled – Verify that if spills occurred, were they cleaned-up per specification and approved plans. If spills did not occur, check “NA.” If “Sat” or “Unsat” are checked, describe the problem and the corrective action taken.
- 5.29 #27. Visible emissions – Verify that visible emissions from dust-producing operations are controlled according to the specification requirements. If emissions exceeded the specification limits during the shift, check “Unsat” and describe the problem and corrective action taken.
- 5.30 #28. High volume air monitoring (Lead Projects) – Verify that all specified high volume ambient air monitoring is being performed according to the specification and approved plans. This includes monitor location and operation, calibration,

documentation, and handling of filters. If the monitoring activities were not in compliance during the shift, check “Unsat” and describe the problem and corrective action taken.

- | 5.31 #29. Regulated areas (Lead Projects) – Verify that the regulated areas have been established at the OSHA Action Level and that visible barriers (e.g., ribbons and signs) are in place. If the regulated areas are not properly set up and designated, check “Unsat” and describe the problem and corrective action taken.
- | 5.32 #30. Hygiene facilities (Lead Projects) – Verify that all required hand wash and shower facilities are on site, properly equipped, and fully operational. If the hand wash and shower facilities are not in compliance during the shift, check “Unsat” and describe the problem and corrective action taken.
- | 5.33 #31. Waste handling – Verify that waste and debris are being collected, handled, and stored in sealed containers according to the specification requirements and approved plans. If waste handling and storage during the shift is not in compliance, check “Unsat” and describe the problem and corrective action taken.
- | 5.34 #32. Project completion cleanliness – Verify that all Contractor equipment and materials have been removed, that a thorough inspection of the construction site and all surrounding property and surfaces located within the likely dispersion zone of dust and debris has been conducted. Verify that all lead dust has been removed from the surface of the completed structure as well as from the surrounding area.

FORM BBS 2563, CONTRACTOR DAILY QUALITY CONTROL REPORT**1. Purpose**

- 1.1. To provide a uniform means for the Contractor to document compliance with the surface preparation and coating application requirements of the specification on a daily basis throughout the course of the project.

2. Scope

- 2.1. This procedure describes the completion of the Contractor Daily Quality Control Report (Form [BBS 2563](#)).

3. General Report Requirements

- 3.1. This Form consists of 3 pages. The pages are divided into various sections for the documentation of inspections that are conducted by Contractor's QC personnel. Extra pages can be attached to provide additional documentation (e.g., specific dry film thickness readings) or for drawings. Drawings should be used when possible to show specific work locations and to track the progress of the major phases of work (e.g., surface preparation, 1st coat application, 2nd coat application, etc.) across the bridge.
- 3.2. This form must be completed for every scheduled workday of the project, whether or not work is being performed. For example, if work is cancelled due to inclement weather, complete the top section of the report and note in the comments section that no work was performed due to inclement weather.
- 3.3. Complete the form in permanent blue ink, in a neat, professional manner.
- 3.4. Submit the original report to the IDOT representative and maintain one copy in a jobsite file. Submit each day's report to IDOT prior to the start of work the following morning.
- 3.5. Complete all lines and sections. If an item is not applicable, designate as "N/A."

4. Nonconforming Work

- 4.1. Specifically identify non-conforming work in one of the "Comments" sections of the report.

5. Instructions for Completing Page 1

- 5.1. Page 1 provides sections for reporting general project information, and sections entitled: Ambient Conditions, Surface Preparation, Surface Preparation Checklist, and comments.
- 5.2. General Information
 - 5.2.1. Contractor – Name of the company performing the surface preparation and painting work.
 - 5.2.2. Bridge ID – Bridge number and/or name.
 - 5.2.3. Location – Route number and mile marker or other appropriate designation.

- 5.2.4. Contract No. – IDOT Contract Number for the specified work.
 - 5.2.5. Date – The date of the work shift.
 - 5.2.6. Contractor QC Start/Stop Time – Enter the time the Inspector starts and stops work for the day or shift.
 - 5.2.7. Crew Start/Stop Time – Enter the time the crew starts and stops work for the day or shift.
 - 5.2.8. Number of Workers – Enter the number of workers on the project during the day or shift.
 - 5.2.9. IR No. – A unique sequential report number assigned to each report. The IR No. is unique to the day in which the work takes place rather than the shift as explained in the two examples below:
 - 5.2.10. Example 1 – Single shift work. When the work involves a single shift, the report number assigned to the first day at the start of the job (e.g., Monday) is #1, Tuesday is report #2, Wednesday is report #3, and the numbering continues sequentially through the end of the project.
 - 5.2.11. Example 2 – Multiple shift work. When the work involves two shifts, with a different Inspector on each shift, each Inspector completes his/her own report. The report for the first day at the start of the job (Monday) completed by the day shift Inspector would be report #1 followed by a suffix (e.g., D for day shift). The report completed for the Monday night shift Inspector would also be report #1 since the work takes place on the same day, but it will be followed by a different suffix (e.g., N for night shift). Both Inspectors would complete report #2 for their work on Tuesday (with the D or N suffix), and so forth.
- 5.3 Ambient Conditions – This section is used to document weather conditions throughout the work day or shift.
- 5.3.1 Location – Briefly describe the location where the ambient conditions were measured (e.g., Span #1, Inside Containment at Abutment). Use a separate line each time ambient conditions are recorded, (generally every four hours or more frequently if weather conditions are changing rapidly).
 - 5.3.2 Time – Record the time that the ambient conditions were measured.
 - 5.3.3 Weather and Wind – Record the general weather conditions, such as sunny, partly cloudy, raining, etc. Indicate the wind direction and speed (e.g., southwest 10 miles per hour would be reported as SW-10).
 - 5.3.4 DB/WB/RH/ST/DP/ +/- – In appropriate block record the dry bulb temperature (DB), wet bulb temperature (WB), relative humidity (RH), surface temperature (ST), and dew point temperature (DP). Calculate and enter the number of degrees the surface temperature differs from the dew point (+/- column). Enter “+” if the surface temperature is greater than the dew point or “-” if it is less (example: +15° or -3°).
 - 5.3.5 Comments – Identify the general operations permitted based on the ambient conditions (e.g. all, rigging only, none, etc.)

- 5.4 Surface Preparation – Complete this section when surface preparation is being performed or inspected. Complete a separate line for each type or method of surface preparation performed that shift (e.g., record washing on a separate line from blast cleaning). This section is divided into three general categories of information – location, surface preparation and surface profile:
- 5.4.1 Location – Identify the location where the surface preparation was performed during the shift.
- 5.4.2 Surface Preparation
- Spec – Record the degree of surface preparation cleanliness specified (e.g., SP3, SP10, etc.).
 - Act – Record the actual surface preparation cleanliness achieved.
- 5.4.3 Surface Profile
- Spec – Record the surface profile specified.
 - Act – Record the actual profile achieved, measured in mils. Attach the Testex Tape to the inspection report.
- 5.4.4 Item/Shop Primed – Check the appropriate box “✓” for the type of shop prime used, OZ (Organic Zinc) IZ (Inorganic Zinc). If shop primed steel has been water cleaned in preparation for primer repair or the application of the intermediate coat. Indicate the numbers (1 through 4) from the preceding lines on the form that correlate with the locations where the shop-primed steel was washed.
- 5.4.5 Comments – Record specific comments or observations relating to surface preparation (e.g., containment leak lead to localized rusting on fascia – area spot cleaned per SP11).
- 5.5 Surface Preparation Checklist - for each inspection item listed, enter a check (✓) in one of the three columns: Yes (for being acceptable and complying with the specification), No (for being unacceptable and not meeting the specification), or N/A (for not applicable). For example, if the item is properly addressed (pack rust is present and has been removed), check Yes. If pack rust is present, but was not removed, check No. If there was no pack rust in the area or the item does not apply to the scope of work, check NA. If the item is checked as No, provide an explanation in the Comments section. For the three surface preparation checklist items that cannot be answered with a Yes/No, enter the requested information.
- 5.5.1 Laminar/Pack (stratified) rust removed? – Verify that pack rust has been removed according the specification requirements.
- 5.5.2 Is surface free of visible moisture? – Verify that no visible moisture was present on the surface prior to surface preparation in accordance with specification requirements.
- 5.5.3 Clean and dry abrasive being used (AB2 for recycled abrasive)? – For abrasive blast cleaning, examine the cleanliness of the abrasive as directed by the specification (e.g., visual test, and slurry test).

- 5.5.4 Compressed air check satisfactory? – Verify that the air supply is free of water and oil contamination.
- 5.5.5 Dust and abrasive removal satisfactory? – Verify that visible dust, abrasives, etc. have been removed from the surface prior to coating application (e.g., surface vacuumed or blown down with clean, dry air as specified prior to coating).
- 5.5.6 Record: Base metal reading (BMR) in mils – enter the average BMR obtained in mils.
- 5.5.7 Grease and oil removed? – Verify that the surface is free of grease and oil contamination as required by the specification.
- 5.5.8 Protective coverings suitable/in place? – Verify that all specified protective coverings are in place prior to the beginning of surface preparation in accordance with the specification requirements.
- 5.5.9 Abrasive meets SSPC-AB1/AB3? – Verify that the abrasive used complies with the specification with regard to the type, class and grade.
- 5.5.10 Soluble salts satisfactorily removed? – Indicate whether soluble salts have been removed as confirmed by the chloride tests. Conduct the tests at the locations and frequency established by the specification and attach the results.
- 5.5.11 Record: Type and size of abrasive – when abrasive blast cleaning is employed, enter abrasive type and size used (e.g., type "Black Beauty," size "20/40"). Also verify that the abrasive material is the correct type per specification.
- 5.5.12 Record: Chalk Rating – when the existing coating is being pressure washed for overcoating, record the results of the ASTM D4214 chalk tests.

6. Instructions for Completing Page 2

- 6.1. Page 2 includes sections entitled – Coating Application, Mixing Report, Coating Application Checklist, Dry Film Thickness.
- 6.2. Coating Application – Complete this section when coating application is being performed or inspected. Complete a separate line for each area where a different coat is being applied during the shift (e.g., record information for the application of the intermediate coat on the outside fascia on one line and the application of the finish coat on interior steel on another). This section is divided into five general categories of information – location, coating type, mixing, application times, and wet film thickness:
 - 6.2.1. Location – Identify the location where the coating application was performed during the shift. Complete a separate line for each location involving the application of a different material.
 - 6.2.2. Coating Type – enter the brand name (e.g., CZ11, CM90, 133HB, etc.) of the coating applied to each specific location

- 6.2.3. Mix # - Insert the corresponding “mix number” from the Mixing Report section of the form. The purpose is to link the coating material information (e.g., batch numbers) from the Mixing Report to the specific locations where the batches are applied.
- 6.2.4. Application Begin/Stop Times - enter the time that the application for each specific location begins and ends.
- 6.2.5. Wet Film Thickness – enter the range of the applied wet film thickness readings in mils (e.g. 6-8).
- 6.2.6. Mist Coat – If application involved an intermediate coat applied over a shop primed inorganic zinc primer, indicate “✓” if a mist coat was first applied. In the first column, indicate the numbers (1 through 4) from the preceding lines on the form that correlate with the locations where the shop-primed steel was mist coated.
- 6.2.7. Comments – Record specific comments or observations relating to coating application (e.g., primer stripe coat applied).
- 6.3. Mixing Report – This report is used to record mixing information such as batch numbers, thinner type and amounts, and time of mix.
 - 6.3.1. Mix No. – Assign a unique sequential number to the batches of material mixed at a given time. For example, if 4 kits of primer were mixed at one time and all components are the same batch numbers, all 4 can be recorded on one line as mix no. 1. The mix number is transferred to the Coating Application section to identify the location(s) where the mix was applied.
 - 6.3.2. Location. – Enter the corresponding location(s) from the Coating Application section, showing where the mix was applied.
 - 6.3.3. Color – Enter the manufacturer’s color identification and confirm that it is correct.
 - 6.3.4. Shelf Life – Verify that the shelf life of each component complies with the manufacturer’s data sheet for shelf life. Record Sat or Unsat. If the batch number cannot be decoded to identify the manufacture date, contact the manufacture for the code information or the shelf life expiration date.
 - 6.3.5. Components – Enter the batch number for each component of each product that is mixed, even single component materials. Space is provided for up to 3 components.
 - 6.3.6. Thinner (Name and %) – Record the brand name (i.e., coating manufacturer’s name and/or number) of the thinner used and the amount of thinner added, expressed as a percentage by volume (e.g., 5%, 10%, 15%, etc.).
 - 6.3.7. Mixed Coating Temperatures – Record the temperature of the mixed coating material.
 - 6.3.8. Time of Mix – Record the time that mixing is completed. When an induction time is required, record the time after mixing, but prior to the start of the induction time.

- 6.3.9. Induction Time - Enter the specified induction time that was actually observed (e.g., 30 minutes @ 77°F).
- 6.3.10. Pot Life – Record the manufacturer's specified pot life (e.g., 6 hours @ 75°F).
- 6.3.11. Quantity – Enter the number of gallons mixed.
- 6.3.12. Witnessed – Indicate whether the mix was witnessed by Contractor QC by checking “yes” or “no.”
- 6.4. Coating Application Checklist – Complete this checklist in the same manner as the Surface Preparation Checklist described in 5.5 above.
 - 6.4.1. Compressed air check satisfactory? – Verify that the compressed air supply is clean as required by the specification.
 - 6.4.2. Surrounding air cleanliness satisfactory? – Verify that airborne contamination is not visible in the vicinity of coating application.
 - 6.4.3. Recoat times satisfactory? – Verify that the drying times between each coat are in compliance with the specification and the manufacturer's data sheet.
 - 6.4.4. Application equipment – Record the type of equipment being used and verify that it is permitted by the specification (e.g., airless - AS, conventional - CS, brush - B, roller - R).
 - 6.4.5. Stripe coat applied? – Note whether a stripe coat was included for the specific coat being applied that day.
 - 6.4.6. Time-surface prep to coating? – Record the time lapse between the completion of surface preparation and the start of coating application.
 - 6.4.7. Protective coverings in place? – Verify that coverings are in place in accordance with the specification requirements.
 - 6.4.8. Intercoat cleanliness satisfactory? – Verify that the surface is free of visible contamination as required by the specification prior to the application of the next coat.
 - 6.4.9. Material agitation satisfactory? – Verify that agitation is performed if specified or required by the coating manufacturer (e.g., for zinc-rich primers).
 - 6.4.10. Adequate lighting? – Record the amount of light in the work area as measured by the Inspector and whether it complies with the specification requirements.
 - 6.4.11. Free of application deficiencies? – Record whether the coating has been applied without defects such as runs, sags, misses, shadow-through, etc.
 - 6.4.12. Overspray Controls used. Effective? – Record the type of controls used to prevent overspray, drips, and spills from escaping the work area. Controls may include the containment used for surface preparation, specially installed painting containment materials and/or alternative methods of application such as brush and roller. Also note whether the selected controls are effective for the work that day.

- 6.5. Dry Film Thickness – Complete this section to record a summary of the dry film thickness measurements of each coat before applying the next, and for the final inspection in an area after all coats have been applied. Complete a separate line for each area being measured (e.g., record the summary information for the dry film thickness of the prime coat on the outside fascia on one line and the thickness of the intermediate coat on interior steel on another). This section is divided into three general categories of information – location, dry film thickness and rework required:
- 6.5.1. Location - Identify the location where the dry film thickness readings were taken during the shift.
 - 6.5.2. Spec – Record the specified dry film thickness for the coat or coats being measured. The “spec” represents the cumulative thickness of all coats that are present at the time of measurement. For example, when measuring the thickness of the intermediate coat, the “spec” is the thickness of the prime and intermediate coats combined. If the specification for the primer is 3.5 to 5.0 mils, and the intermediate is 3.0 to 6.0 mils, enter 6.5 to 11.0 as the “spec” when measuring the intermediate.
 - 6.5.3. Act – Record the average dry film thickness measured in the area.
 - 6.5.4. Range – Record the range of the dry film thickness readings measured in the area.
 - 6.5.5. Rework Required – Check “Yes” or “No.” If “Yes” is indicated, explain why in the comments.
 - 6.5.6. Comments – Record specific comments or observations relating to dry film thickness readings.

7. Instructions for Completing Page 3

8. 7.1. Page 3 includes sections for Equipment on the Job, Instrument Record, Comments, and signature sections for the Contractor QC Inspector and the Resident Engineer/Paint Technician.
- 7.2. Equipment on Job – In the boxes, enter a list of the major equipment items the Contractor has on the job (e.g., 1250 CFM compressor, 6 ton blast pot, etc.).
 - 7.3. Instrument Record – Nine of the most common inspection instruments are identified with additional space for one other instrument. Record the name and serial number of all instruments used. For the Testex Tape, identify the tape used (Coarse [C], paint grade [PG], X-Coarse [XC], or X-Coarse Plus [XC+]). Check the boxes to confirm that the gages, as applicable, have been calibrated (e.g., the sling psychrometer is not calibrated and would be checked as NA).
 - 7.4. Comments - This section is used for supplementary comments on the daily activities, work progress, problems encountered deviations from the contract specification requirements and their resolution. Use additional sheets as necessary. The results of the soluble salts tests can also recorded in this section or on additional sheets.
 - 7.5. Contractor QC Inspector and Resident Engineer/Paint Technician Signatures – Sign and date the report. Note that the Resident Engineer/Paint Technician name and signature only confirms that the report was received, not that the information is valid or has been confirmed.