

State of Illinois
Department of Transportation
Bureau of Materials
Springfield

POLICY MEMORANDUM

Revised: February 6, 2020

26-08.10

This Policy Memorandum supersedes number 26-08.9 dated September 6, 2019

TO: REGIONAL ENGINEERS AND BUREAU CHIEFS IN THE OFFICE OF
HIGHWAYS PROJECT IMPLEMENTATION AND REINFORCEMENT BAR AND
DOWEL BAR PRODUCERS

SUBJECT: REINFORCEMENT BAR AND/OR DOWEL BAR PLANT CERTIFICATION
PROCEDURE

1.0 PURPOSE

1.1 To establish procedures whereby reinforcement bars and/or dowel bars furnished by a **Manufacturer** or **Supplier** will be accepted for use on **Department** projects.

2.0 SCOPE

2.1 This procedure is available to all **Manufacturers** and **Suppliers** of reinforcement bars and/or dowel bars.

3.0 REFERENCES AND AUTHORITY

3.1 IDOT Standard Specifications for Road and Bridge Construction.

3.2 National Transportation Product Evaluation Program (NTPEP), "Standard Practice for Qualification of Highway Product Manufacturers Through the Use of NTPEP Audits (SP01)".

3.3 National Transportation Product Evaluation Program (NTPEP), "NTPEP Committee Work Plan for Evaluation of Reinforcing Steel Manufacturers".

3.4 ASTM A706/A706M, "Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement".

3.5 AASHTO M227/M227M, "Steel Bars, Carbon, Merchant Quality, Mechanical Properties".

4.0 DEFINITIONS

AASHTO - American Association of State Highway and Transportation Officials.

ASTM - American Society for Testing Materials.

BUREAU - Central Bureau of Materials (CBM), Illinois **Department** of Transportation.

CERTIFIED MILL ANALYSIS - A document prepared by the **Manufacturer** that lists all chemical and physical test results for reinforcement or dowel bars as required by the applicable **Specifications**. The following shall also be included in addition to any other data deemed necessary by the **Manufacturer**:

1. **Producer** name and address
2. Type and grade of reinforcement or dowel bar
3. Heat number
4. Authorized signature of person responsible for **Quality Control**
5. Date and location where steel was melted in the United States
6. Date reinforcement or dowel bars were rolled
7. Date document printed

CORRECTIVE ACTION REPORT (CAR) - A procedure used to originate a corrective action. It is used as a response to a defect. In simple words, it means an action/actions adopted to eliminate the problem from occurring again.

DEPARTMENT - Illinois Department of Transportation (IDOT), including its **Districts** and Central Bureau offices.

DISQUALIFIED PLANT - A **Plant** that is not qualified by the **Bureau** to ship reinforcement bars and/or dowel bars for immediate use on **Department** projects.

DISTRICT - District office, Illinois **Department** of Transportation.

ENGINEER - Chief Engineer of the **Department** of Transportation of the state of Illinois, or authorized representative as defined in Section 101 of the **Standard Specifications**.

INDEPENDENT ASSURANCE (IND) SAMPLE - A sample used to provide an independent check on the reliability of the **Manufacturer's Quality Control** program.

INSPECTOR - The authorized representative of the **Engineer** assigned to make detailed inspection of any or all portions of the work, material, product, etc., as applicable.

INVESTIGATION (INV) SAMPLE - A destination sample used to verify the acceptability of reinforcement or dowel bars from a **Plant** or **Supplier**

MANUFACTURER - A term synonymous with **Producer**.

MMI - Manual for Material Inspection

MISTIC - Materials Integrated System for Test Information and Communication. A **Department**-wide database containing materials inspection and test information.

NTPEP - National Transportation Product Evaluation Program.

NTPEP COMPLIANT - A **Plant** which is listed by **NTPEP** as being compliant with its evaluation program for reinforcing steel **Manufacturers**.

PLANT - A **Producer's** facility or mill for manufacturing or fabricating products such as reinforcement or dowels bar that are employed on **Department** projects.

PRELIMINARY (PRE) SAMPLE - A sample used to determine, in advance, if the reinforcement or dowel bar will comply with the **Specifications**.

PROBATIONARY PLANT - A **Plant** that is qualified by the **Bureau** to ship reinforcement bars and/or dowel bars for immediate use on **Department** projects on a conditional basis.

PROCESS CONTROL (PRO) SAMPLE - A sample used for the purpose of controlling production of reinforcement or dowel bars proposed for incorporation in **Department** projects.

PRODUCER - An individual or business entity providing materials and/or products for performance of prescribed work.

QUALIFIED PERSONNEL - Personnel with demonstrated capability to perform applicable production tasks, inspection and testing.

QUALIFIED PLANT - A **Plant** that is qualified by the **Bureau** to ship reinforcement bars and/or dowel bars for immediate use on **Department** projects.

QUALITY CONTROL - The sum total of activities performed by a **Producer**, Contractor, Consultant, **Manufacturer**, etc. to make sure materials; manufactured, fabricated or constructed items; processes; products; designs; conducted test procedures; etc. will satisfy the requirements of the **Specifications**, **Quality Control** program, etc., as applicable.

SPECIFICATIONS - Specifications for materials; manufactured, fabricated or constructed items; processes; products; designs; conducted test procedures, etc. which includes the **Standard Specifications**, supplemental specifications and recurring special provisions, highway standards, shop drawings, contract plans, project special provisions, **AASHTO Specifications**, **ASTM Specifications**, etc., as applicable.

SISTER SAMPLE - A term synonymous with **Split Sample**.

SPLIT SAMPLE - A sample in which half the material is tested by the **Bureau** or **NTPEP**, and the other half is tested by the **Manufacturer**.

STANDARD SPECIFICATIONS - The **Department's** Standard Specifications for Road and Bridge Construction.

SUPPLIER - A company that supplies materials or products such as reinforcement or dowel bars that it does not manufacture or fabricate.

5.0 REINFORCEMENT BAR AND DOWEL BAR ACCEPTANCE PROCEDURES

5.1 Reinforcement bars and dowel bars will be accepted according to the **Specifications** and this policy memorandum.

- 5.2 **Qualified Plant Procedure.** In order to supply reinforcement bars and/or dowel bars for use on **Department** projects, a **Manufacturer's Plant** shall be approved by the **Bureau**. Requirements for the **Qualified Plant** Procedure are contained in Section 6 of this policy memorandum.
- 5.3 **Qualified Plant List.** The **Bureau** will maintain a "[Qualified Producer List of Reinforcement and Dowel Bar Plants](#)" on the internet which will indicate the **Qualified Plants** that meet the requirements of this policy memorandum. This list will include the name, location, and **Producer/Supplier** Number of each **Qualified Plant**. Other information, as appropriate, will also be provided on the list. **Qualified Plants** may ship reinforcement and/or dowel bars for immediate use on **Department** projects.
- 5.4 The Resident **Engineer** or **Inspector** will make a positive identification between bar identification marks, or I.D. tags, and the **Qualified Plant** list when reinforcement and/or dowel bars are delivered to the jobsite, precast concrete **Plant**, or precast prestressed concrete **Plant**. See also Section 7.1. Reinforcement and/or dowel bars from a **Qualified Plant** or **Supplier** will be accepted and entered into the **MISTIC** reporting system by the **District Materials Engineer**.
- 5.5 **Suppliers** shall only supply reinforcement and/or dowel bars from **Qualified Plants**.

6.0 QUALIFIED PLANT PROCEDURE

6.1 Preliminary Approval.

6.1.1 A **Manufacturer** requesting qualification shall provide or have available the following to the **Bureau**:

1. The **Plant** name and location
2. A list of the reinforcement bars and/or dowel bars manufactured by the **Plant**
3. A **Certified Mill Analysis** not greater than 2 months old at the time of application for all reinforcement and/or dowel bars manufactured by the **Plant** and listed in Item 2 of this section
4. A certification the **Plant** production meets the requirements of Section 3.0 for all products listed in Item 2 of this section

6.1.2 **NTPEP Compliance.** At the time of application for approval by the **Bureau**, the **Manufacturer** shall either be listed as **NTPEP Compliant**, or be in the process of becoming listed as **NTPEP Compliant** as determined by the **Bureau**.

6.1.2.1 Final **Qualified Plant** status will not be granted by the **Bureau** until the **Manufacturer** is listed as **NTPEP Compliant**.

6.2 Quality Control Requirements for Qualified Plants.

1. The **Manufacturer** shall establish and maintain **Quality Control** policies and procedures for production, sampling and testing of reinforcement and/or dowel bars.

The **Bureau** shall be notified of any changes in the **Manufacturer's Quality Control** program.

2. The **Plant** laboratory test equipment shall be maintained in good working order and calibrated according to SP01
3. **Qualified Personnel** shall perform applicable production tasks, inspections, and testing

6.3 **Inspection, Sampling, and Testing Procedures.**

6.3.1 Sampling, testing and inspection procedures will not begin until the requirements of Section 6.1 of this policy memorandum have been met as determined by the **Bureau**.

6.3.2 Inspection. An **Inspector** from the **Bureau** will conduct a scheduled visit to inspect the laboratory facilities for the **Plant**; the **Plant** manufacturing processes; the **Plant** storage facilities; and the **Quality Control** policies, procedures, and practices performed at the **Plant** (See also Section 6.2). Access to all necessary **Plant** facilities and records (i.e., test, **Quality Control**, etc.) shall be made available to the **Inspector**. The **Manufacturer** shall be responsible for payment of transportation, per diem (meals), lodging, and incidental travel costs incurred by the **Inspector** if the trip from the **Bureau** to the **Plant**, the **Plant** inspection, and the return trip to the **Bureau** cannot be completed within one day's normal work hours of 8:00 AM to 4:30 PM. Reimbursement for travel costs shall be provided no later than 30 calendar days after receipt of costs submitted by the **Department**.

6.3.3 Sampling. During the **Plant** inspection or at another prearranged date and time, the **Inspector** or a representative from **NTPEP** (as determined by the **Bureau**) will select **Preliminary (PRE) Samples** and witness bend tests by the **Manufacturer**. The material to be sampled will be selected from the sizes, grades and heats in stock.

PRE Samples for testing conducted by the **Manufacturer**, and the **Bureau** or **NTPEP** shall be **Split Samples** or **Sister Samples** except for bend test samples. Specimens sent to the **Bureau** or **NTPEP** (as determined by the **Bureau**) for testing shall contain all the markings normally used by the **Manufacturer**. The **Manufacturer** shall assume the cost to deliver the samples to the **Bureau** or **NTPEP**. **PRE Samples** shall be obtained from 3 different reinforcement and/or dowel bars from 10 different heats. Samples shall be numbered 1 through 30 and marked on each end in such a manner as to ensure traceability. For the bend test, 1 reinforcement bar will be sampled per heat and shall be tested at the **Plant** according to Section 6.3.4. When feasible, each selected heat shall be of a different bar or dowel size. Sample sizes, lengths and other information are detailed in Appendix A.

6.3.4 Testing. The **Manufacturer** shall test its portion of the 30 **PRE Samples** according to the Test/Measurement schedule outlined in Table 1 for reinforcement bars. The **Manufacturer** shall test its portion of the 30 **PRE Samples** according to the Test/Measurement schedule outlined in Table 2 for dowel bars. The test results shall be signed and submitted to the **Bureau** or **NTPEP**, as determined by the **Bureau**.

Table 1. Testing and Conformance Requirements for Reinforcement Bars

Sample #: A number from the 1st to the 30th sample
 Bar #: Standard bar size designation, e.g. #5, #8, etc.
 Heat #: Manufacturer heat number the sample came from
 Sample Weight: Pounds
 Sample Length: Inches
 Sample Weight/ft: lbs/ft

Test/Measurement	Conformance Requirement
Weight/Length, (ASTM A706 Section 11 & Table 1), %	Min 94% Nominal Weight
Deformation Height, (ASTM A706 Sections 7 & 8, Table 1), in.	Min Avg Height from Table 1
Deformation Spacing, (ASTM A706 Section 7 & 8, Table 1), in.	Max Avg Spacing from Table 1
Yield Strength, (ASTM A706 Section 9, Table 2; IDOT Std. Specs. 1006.10(a)(1) a. & c.), psi	Min 60000 Max 78000
Tensile Strength, (ASTM A706 Section 9, Table 2; IDOT Std. Specs. 1006.10(a)(1) b.), psi	Min 80000 & Min 1.2 x Measured Yield Strength
Elongation, (ASTM A706 Section 9, Table 2), % in 8 in.	Min. from Table 2 ¹
Bend Test, (ASTM A706 Section 10, Table 3; IDOT Std. Specs. 1006.10(a)(1) e.), Pass/Fail	No Cracking of Outside Radius as Determined by the Inspector

¹Elongation for Straightened Bars from Coils (#3 through #6) is Min. 9% according to IDOT Std. Specs. 1006.10(a)(1) c.

Table 2. Testing and Conformance Requirements for Dowel Bars

Sample #: *A number from the 1st to the 30th sample*
 Dowel Diameter: *inches*
 Grade: *70, 75, or 80*
 Heat #: *Manufacturer heat number the sample came from*
 Sample Weight: *Pounds*
 Sample Length: *Inches*
 Sample Weight/ft: *lbs/ft*

Test/Measurement	Conformance Requirement
Yield Strength, (AASHTO M227), ksi	Grade 70: Min 39 Grade 75: Min 41 Grade 80: Min 44
Tensile Strength, (AASHTO M227), ksi	Grade 70: Min 70 Max 85 Grade 75: Min 75 Max 90 Grade 80: Min 80
Elongation, (AASHTO M227), % in 2 or 8 in. Gauge Length	Grade 70: 14 for 8 in. Gauge 18 for 2 in. Gauge Grade 75: 14 for 8 in. Gauge 18 for 2 in. Gauge Grade 80: 13 for 8 in. Gauge 17 for 2 in. Gauge

The **Bureau** or **NTPEP** (as determined by the **Bureau**) will test its portion of the 30 **PRE Samples** according to the Test/Measurement schedule outlined in Table 1 for reinforcement bars. Measurement of deformation spacing and height as well as the bend test will be conducted by the **Bureau** at its discretion. If the **Bureau** elects to conduct the bend test, added sampling shall be according to Section 6.3.3. The **Bureau** or **NTPEP** (as determined by the **Bureau**) will test its portion of the 30 **PRE Samples** according to the Test/Measurement schedule outlined in Table 2 for dowel bars.

6.4 **Sample, Heat, and Laboratory Comparison Assessment Criteria.** Results from the tests outlined in Table 1 or Table 2, as applicable, on the **PRE Samples** conducted by the **Manufacturer** will be evaluated for excessive variation from the tests results on the **PRE Samples** conducted by the **Bureau** or **NTPEP** according the criteria outlined in Section 6.4.1.

Test results on the **PRE Samples** will be evaluated for conformance with Table 1 or Table 2, as applicable, according to the criteria outlined in Section 6.4.2.

6.4.1 Laboratory Comparison Requirements.

6.4.1.1 Laboratory Comparison Requirements for Individual **PRE Split Sample** Results.

The test results for each of the individual 30 **PRE Split Samples** shall vary between laboratories by not more than the following:

1. Unit Weight 1.0%
2. Yield Strength 10.0%¹

3. Tensile Strength 10.0%
4. Elongation 4.0%

¹At the discretion of the **Bureau**, yield strength comparisons may be waived for coiled reinforcement bars.

6.4.1.2 Laboratory Comparison Requirement for Heat Average **PRE Split Sample Results**. The average test results from the 3 **PRE Split Samples** for each heat shall vary between laboratories by not more than the following:

1. Unit Weight 1.0%
2. Yield Strength 4.0%¹
3. Tensile Strength 4.0%
4. Elongation 3.0%

¹At the discretion of the **Bureau**, yield strength comparisons may be waived for coiled reinforcement bars.

6.4.1.3 Failure of the **Manufacturer** to meet the requirements of Section 6.4.1.1 or 6.4.1.2 will result in the **Plant** not achieving initial qualified status or maintaining current qualified status. However, at the discretion of the **Bureau**, a heat or heats may be re-sampled, re-tested and re-assessed according to Section 6.5.

6.4.2 Specification Conformance Requirements.

6.4.2.1 Conformance Requirements detailed in Table 1 or Table 2, as applicable, shall apply to all tests conducted by the **Bureau** or **NTPEP**, as well as all the tests conducted by the **Manufacturer**.

6.4.2.2 For determination of **Plant** qualification, the test results obtained by the **Bureau** or **NTPEP** supersede those of the **Manufacturer**.

6.4.2.3 All of the 30 **PRE Split Samples** test results shall meet the Conformance Requirements outlined in Table 1 or Table 2, as applicable.

6.4.2.4 Failure of the **Manufacturer** to meet to the requirements of Sections 6.4.2.1 through 6.4.2.3 will result in the **Plant** not achieving initial qualified status or maintaining current qualified status. However, at the discretion of the **Bureau**, a heat or heats may be re-sampled, re-tested and re-assessed according to Section 6.5.

6.5 **Re-Sampling, Re-Testing, and Re-Assessment Criteria.**

6.5.1 Inter-Laboratory.

6.5.1.1 At the discretion of the **Bureau**, heats that do not conform to the requirements of Section 6.4.1.1 may be re-sampled from the same heat and re-tested according to Section 6.3. Re-assessment will be according to Section 6.4.1.1 and 6.4.1.2.

6.5.1.2 At the discretion of the **Bureau**, heats that do not conform to the requirements of Section 6.4.1.2 may be re-sampled from the same heat and re-tested according to Section 6.3. Re-assessment will be according to Section 6.4.1.1 and 6.4.1.2.

6.5.1.3 Heats that have been re-sampled and re-tested according to Section 6.5.1.1 and/or Section 6.5.1.2 shall also meet the requirements of Section 6.4.2.

6.5.2 **Specifications.**

6.5.2.1 At the discretion of the **Bureau**, heats that do not conform to the requirements of Section 6.4.2 may be re-sampled from the same heat and re-tested according to Section 6.3.

6.5.2.2 Re-assessment of re-sampled and re-tested heats will be according to Section 6.4.2. At the discretion of the **Bureau**, re-assessment may also be according to 6.4.1.1 and/or 6.4.1.2.

6.5.3 Subsequent Re-Sampling, Re-Testing, and Re-Assessment Criteria. Heats that do not meet the requirements of Section 6.5.1 and/or Section 6.5.2 will be rejected, and should not be subsequently re-sampled, re-tested and re-assessed unless otherwise authorized by the **Bureau**.

6.6 **Initial Plant Qualification.** The **Bureau** will notify the **Manufacturer** in writing if the request for qualification is approved or denied. A request may be denied if the **Manufacturer** fails to meet any of the requirements outlined in Sections 6.1 through 6.5. If the request for qualification is denied, the **Manufacturer** shall meet the requirements of Sections 7.7.3, 7.7.4, 7.7.5, 7.7.6, and 7.7.8 Item 3 in order to re-apply for qualification.

6.7 **Plant Requalification.** The **Bureau** will notify the **Manufacturer** in writing if the request for requalification is approved or denied. A request may be denied if the **Manufacturer** fails to meet any of the requirements outlined in Sections 6.2 through 6.5, or if the **Plant** falls out of compliance with **NTPEP**. If the request for requalification is denied, the **Plant** will either be designated as **Disqualified** or **Probationary** at the discretion of the **Bureau**. In order to become **Qualified** once again, **Disqualified** or **Probationary Plants** shall meet the requirements of Section 7.7.

7.0 REQUIREMENTS DURING PERIOD OF QUALIFICATION

7.1 Record and Reporting Requirements.

1. Records of production control tests shall be maintained by the **Manufacturer** for a minimum period of 5 years, and shall be made available to the **Bureau** upon request.
2. Copies of shipping orders, bills of lading, and invoices shall be maintained by the **Manufacturer** or **Supplier** for a minimum period of 5 years. Copies of shipping orders, bills of lading, and invoices shall be provided to the Resident **Engineer or Inspector**, and the **District Materials Engineer** upon delivery to a jobsite, precast concrete **Plant**, or precast prestressed concrete **Plant**. These documents shall also be provided to the **Bureau** for bars and dowels delivered to a jobsite.

- 7.2 **NTPEP Compliance.** If a **Plant** falls out of **NTPEP Compliance**, it will be designated as **Disqualified**. In order to become **Qualified** once again, **Disqualified Plants** shall meet the requirements of Section 7.7 and become **NTPEP Compliant** once again.
- 7.3 **Inspection.** During the period of qualification, a **Plant** may be inspected according to Section 6.3.2 at the discretion of the **Bureau**. If a **Plant** fails the inspection, it will be designated as either **Disqualified** or **Probationary** at the discretion of the **Bureau**. In order to become **Qualified** once again, **Disqualified** or **Probationary Plants** shall meet the requirements of Section 7.7.
- 7.4 **Process Control Sampling.**
- 7.4.1 For every 200 tons (400,000 lbs) of reinforcement and/or dowel bars supplied by a **Manufacturer** to the **Department** or once per year, whichever comes first, **Process Control (PRO) Samples** will be taken by a **District**.
- 7.4.2 The running total of reinforcement and/or dowel bars supplied to the **Department** will be tracked by the **Bureau** using the copies of shipping orders, bills of lading, or invoices supplied by the **Manufacturer** or **Supplier** to the **Bureau** as required by Section 7.1 Item 2.
- 7.4.3 Sampling at the jobsite or any other location by a **District** will be as directed by the **Bureau**. See also Appendix B for Preliminary Jobsite Reporting and Sampling Procedure.
- 7.4.4 The **Bureau** will instruct the **District** as to the number and sizes of reinforcement and/or dowel bar **PRO Samples** to collect.

PRO Samples shall consist of randomly selected reinforcement and/or dowel bar specimens that are at least 6 feet in length and shall include mill markings per the **MMI**. Alternatively, **PRO Samples** may consist of randomly selected reinforcement and/or dowel bar specimens that are each at least 30 inches in length. For jobsite sampling, each specimen shall be cut from the same bar or dowel stock (i.e., heat #'s) as that which will be incorporated into the work. In order to offset the quantity of sampled bars and/or dowels, one or more additional bars and/or dowels of each size (i.e., #4, #5, etc.) required for the project shall be supplied. Each additional supplied bar or dowel shall match the length of a specific bar detailed on the contract plans.

The samples shall be sent to the **Bureau** for testing.

- 7.5 **Process Control Testing and Assessment Criteria.**
- 7.5.1 All tests on the **PRO Samples** collected according to Section 7.4 will be conducted by the **Bureau**, and all results shall meet the Conformance Requirements in Table 1 and/or Table 2, as applicable.
- 7.5.2 Failure of the **Manufacturer** to meet to the requirements of Section 7.5.1 will result in the **Plant** being designated as **Disqualified** or **Probationary** at the discretion of the **Bureau**. However, at the discretion of the **Bureau**; **PRO Samples** may be re-sampled, re-tested and re-assessed according to Section 7.6.

7.6 **Process Control Re-Sampling, Re-Testing, and Re-Assessment Criteria.**

7.6.1 Re-sampling shall be according to Sections 7.4.3 and 7.4.4.

7.6.2 Re-testing shall be according to Section 7.5.1. Re-assessment shall be according to Sections 7.5.1 and 7.6.3.

7.6.3 If all the re-tested **PRO Samples** meet the requirements of Section 7.5.1, the **Manufacturer** will remain as a **Qualified Plant**. If at least 1 of the test results does not meet the Conformance Requirements in Table 1 or Table 2, as applicable, the **Plant** will be designated as either **Disqualified** or **Probationary** at the discretion of the **Bureau**. In order to become **Qualified** once again, **Disqualified** or **Probationary Plants** shall meet the requirements of Section 7.7.

7.7 **Disqualification, Probation, and Corrective Action.**

7.7.1 **Disqualified Plants** will be immediately removed from the **Qualified Plant** List and shall not supply reinforcement and/or dowels bars to **Departmental** projects.

7.7.2 **Probationary Plants** will not be immediately removed from the **Qualified Plant** List and may supply reinforcement and/or dowel bars to **Departmental** projects on a conditional basis.

7.7.3 **Disqualified and Probationary Plants** shall submit a **Corrective Action Report (CAR)** (See Section 7.7.4) for each identified issue to the **Bureau** within 15 business days of the date of disqualification or probation. Failure to submit a **CAR** or **CARs** within this time frame will result in the **Plant** having to undergo the full **Qualified Plant** Procedure outlined in Section 6.0 as well as repeat Section 7.7 in order to become **Qualified** once again. In addition, **Probationary Plants** will be designated as **Disqualified Plants**.

7.7.4 **CARs** shall contain detailed descriptions of the issue to be addressed, the course of action to be taken to remedy the issue, and a timeline for when this course of action will be accomplished. See also Appendix C. A separate **CAR** is required for each identified issue to be addressed by the **Manufacturer**.

7.7.5 The **Bureau** will determine if a proposed **CAR** is acceptable, and may revise or amend a **CAR** before approval.

7.7.6 The **Bureau** will determine when and/or if the issue addressed in a **CAR** has been remedied.

7.7.7 If the **Bureau** determines that each issue has been remedied within the timelines stipulated in each submitted and approved **CAR**, the **Manufacturer** will be reinstated as a **Qualified Plant**.

7.7.8 If the **Bureau** determines that an issue has not been remedied within the timeline stipulated in a **CAR**, the **Manufacturer** will either:

1. Remain a **Probationary** or **Disqualified Plant** until the **Bureau** determines the issue addressed in a **CAR** has been remedied

2. Be declared a **Disqualified Plant** until the **Bureau** determines the issue addressed in a **CAR** has been remedied
3. Be required to undergo the full **Qualified Plant** Procedure outlined in Section 6.0, and, at the discretion of the **Bureau**, repeat Section 7.7 in order to become **Qualified** once again

7.8 **Independent Assurance (IND) and Investigation (INV) Sampling, Testing and Assessment Criteria.**

7.8.1 **IND or INV Samples** may be taken at any time during the period of qualification.

7.8.2 **IND Sampling** will be according to Section 7.4.3, or as otherwise determined by the **Bureau**.

7.8.3 **INV Sampling** will be as determined by the **Bureau** or **District**.

7.8.4 **IND or INV Sample** testing and assessment will be according to Section 7.5.

7.8.5 **IND or INV re-Sampling**, re-testing, and re-assessment will be according to Sections 7.6, 7.8.2, and 7.8.3.

8.0 **REQUALIFICATION PROCEDURE**

8.1 **Procedure.** Requalification shall be according to Sections 6.2, 6.3, 6.4, 6.5 and 6.7

8.2 **Interval. Qualified Plants** shall be requalified on an annual basis or as determined by the **Bureau**. The **Bureau** will inform the **Manufacturer** when the requalification procedure will commence.

9.0 **CLOSING NOTICE**

Archived versions of this policy memorandum may be examined by contacting the **Bureau**.

The current **Bureau** Chief of Materials has approved this policy memorandum. Signed documents are on file with the **Bureau**.

Appendix A: Sampling Outline (Section 6.3.3)

Heat #1		
Sample #	Mill Samples	Sister or Split Samples
1	1 @ 30 inches Long	2 @ 30 Inches Long
2	1 @ 30 inches Long	2 @ 30 Inches Long
3	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 1-3 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Heat #2		
Sample #	Mill Samples	Sister or Split Samples
4	1 @ 30 inches Long	2 @ 30 Inches Long
5	1 @ 30 inches Long	2 @ 30 Inches Long
6	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 4-6 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Heat #3		
Sample #	Mill Samples	Sister or Split Samples
7	1 @ 30 inches Long	2 @ 30 Inches Long
8	1 @ 30 inches Long	2 @ 30 Inches Long
9	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 7-9 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Heat #4		
Sample #	Mill Samples	Sister or Split Samples
10	1 @ 30 inches Long	2 @ 30 Inches Long
11	1 @ 30 inches Long	2 @ 30 Inches Long
12	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 10-12 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Heat #5		
Sample #	Mill Samples	Sister or Split Samples
13	1 @ 30 inches Long	2 @ 30 Inches Long
14	1 @ 30 inches Long	2 @ 30 Inches Long
15	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 13-15 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Appendix A: Sampling Outline (Section 6.3.3)(Cont.)

Heat #6		
Sample #	Mill Samples	Sister or Split Samples
16	1 @ 30 inches Long	2 @ 30 Inches Long
17	1 @ 30 inches Long	2 @ 30 Inches Long
18	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 16-18 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Heat #7		
Sample #	Mill Samples	Sister or Split Samples
19	1 @ 30 inches Long	2 @ 30 Inches Long
20	1 @ 30 inches Long	2 @ 30 Inches Long
21	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 19-21 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Heat #8		
Sample #	Mill Samples	Sister or Split Samples
22	1 @ 30 inches Long	2 @ 30 Inches Long
23	1 @ 30 inches Long	2 @ 30 Inches Long
24	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 22-24 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Heat #9		
Sample #	Mill Samples	Sister or Split Samples
25	1 @ 30 inches Long	2 @ 30 Inches Long
26	1 @ 30 inches Long	2 @ 30 Inches Long
27	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 25-27 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

Heat #10		
Sample #	Mill Samples	Sister or Split Samples
28	1 @ 30 inches Long	2 @ 30 Inches Long
29	1 @ 30 inches Long	2 @ 30 Inches Long
30	1 @ 30 inches Long	2 @ 30 Inches Long
Bend Test Sample Corresponding to Heat Samples 28-30 (Reinforcement Bars Only) – Length Determined by Bar Size. Split Samples contain a backup sample.		

PRELIMINARY JOBSITE REPORTING AND SAMPLING PROCEDURE

1. At the start of a project, the **District** (i.e., Resident **Engineer**, Physical Test **Engineer**, **Inspector**, etc.) shall ascertain from the contractor which company is planned to be the primary **Supplier** of reinforcement bars and/or dowel bars. This should preferably be determined before, during, or shortly after the preconstruction conference.
2. Without delay, the **District** shall provide the **Bureau** with the following information:
 - a. Primary reinforcement bar and/or dowel bar **Supplier**
 - b. Total tonnage of reinforcement bars and/or dowel bars from the contract plans (i.e., from the Summary of Quantities or Total Bill of Materials)
 - c. Range of sizes (i.e., #4, #5, etc.) of straight reinforcement bars (with lengths greater than 6 ft.) and/or dowels to be used on the project as determined from the contract plans (i.e., from the Superstructure Bill of Materials, Substructure Bill of Materials, etc.)
3. The **Bureau** will determine a preliminary running total of reinforcement bars and/or dowel bars supplied to the **Department** by the company based upon the information provided in Item 2 above
4. If the preliminary running total tonnage supplied meets or exceeds 200, jobsite sampling will be required.
5. If jobsite sampling is required, the **Bureau** will specify to the **District** and the **Supplier** the number of required specimens of each size (i.e., #4, #5, etc.) reinforcement bar and/or dowel that shall be sampled.
6. If jobsite sampling is required, the **Supplier** shall supply additional reinforcement bars and/or dowel bars for the project as detailed in Section 7.4.4.

ILLINOIS DEPARTMENT OF TRANSPORTATION Corrective Action Report

Complete and submit the following [form](#) (link embedded) to the Central Bureau of Materials via e-mail (Michael.Brydl@illinois.gov) within 15 business days of notification of Disqualification, Probation, or Denial of Qualification.

Plant and Location:	Date of Transmittal:
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Describe in the areas provided the corrective action taken to resolve the issue. Corrective action of issues includes root cause analysis and a plan to monitor the effectiveness of the corrective action. Attach any supporting documentation (e.g.: modified/new procedures, purchase requests, proof of new training, calibration records, etc.)

Issue
Description (to be completed by IDOT):

Immediate Action
Description of the Immediate Action Taken to Prevent Recurrence of Issue (to be completed by Manufacturer):

Root Cause Analysis
Description of the Reason(s) That Allowed the Issue to Happen (to be completed by Manufacturer):

Actionable Solution

Description of the Improvements to the Quality Control Program that will be Implemented to Prevent a Similar Occurrence of the Issue. Include a Timeline for Implementation (to be completed by Manufacturer):

Planned Monitoring Activities

Description of the Plans to Monitor the Effectiveness of the Actionable Solution Given Above (to be completed by Manufacturer):