

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



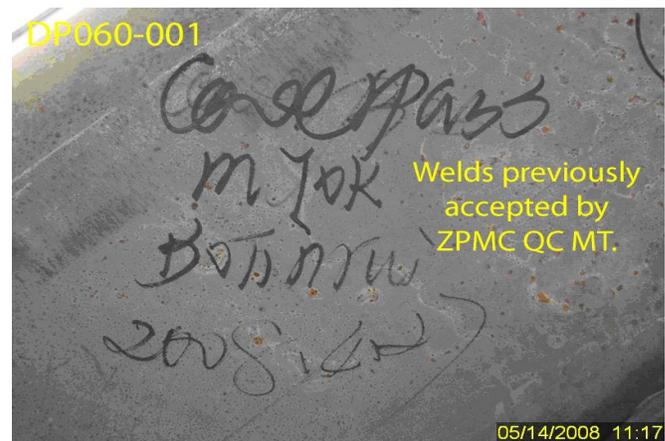
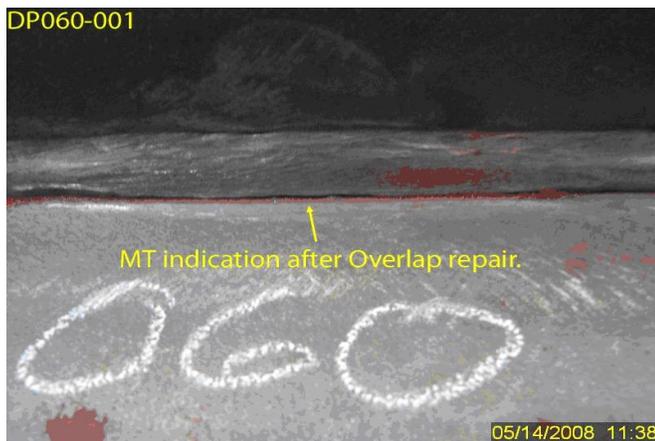
Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000133**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-May-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0127**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: DP-060-001
Procedural	Procedural	Descriptor: OBG Deck Panel	

Reference Description: Special Provisions, Section 8-3 Welding (p. 150)**Description of Non-Conformance:**

The Contractor accepted weld repairs that resulted in unacceptable weld surface profiles. During QA magnetic particle testing of closed rib to box shell plate weld repairs, multiple indications were observed at the toe of welds that had previously been found acceptable by the Contractor. This occurred on repairs to deck panel DP-060-001.

**Applicable reference:**

Special Provisions, Section 8-3 Welding (p. 150): "Groove weld surface profiles that interfere with the performance of the NDT procedure or produce questionable test results shall be ground smooth and blended with the adjacent material.

"Fillet weld surface profiles that interfere with the performance of the NDT procedure or produce questionable test results shall be ground to blend the toes smoothly with adjacent base metal."

Who discovered the problem: QA Inspector William Clifford**Name of individual from Contractor notified:** ABFJV QC Inspector Warren Buehler

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: Approximately 1300 hours by telephone on 05-14-2008.

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 5/16/08 0915 hours by phone

QC Inspector's Name: ZPMC QC Inspector Sun Wei

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By:	Lowry,Patrick	SMR
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Reviewed By:	Lowry,Patrick	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 19-May-2008

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki

Job Name: SAS Superstructure

Attention: Mr. Dave Williams Consultant

Document No: 05.03.06-000108

Subject: NCR No. ZPMC-0127

Reference Description: Special Provisions, Section 8-3 Welding (p. 150)

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG **Lift:**

Remarks:

The Contractor accepted weld repairs that resulted in unacceptable weld surface profiles. During QA magnetic particle testing of closed rib to box shell plate weld repairs, multiple indications were observed at the toe of welds that had previously been found acceptable by the Contractor. This occurred on repairs to deck panel DP-060-001.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0127

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao

File: 05.03.06

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000108

Subject: NCR No. ZPMC-0127

Dated: 10-Sep-2008

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000127 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: The grinding technique has been further refined to prevent this indication and the MT inspectors have been retrained.

The grinding of overlap was insufficient so as to hold powder during magnetic particle inspection. The grinding technique has been further refined to prevent this indication and the MT inspectors have been informed of what they thought was considered a non relevant indication due to change in geometry at the transition between deck to rib to identify this indication as a remnant of the overlap being removed.

Submitted by:

Attachment(s): ABF-NPR-000127R00

Caltrans' comments:

Status: AAP

Date: 28-Sep-2008

The response is acceptable, but the Non-Conformance is not closed.

Please provide documentation of the repairs that were performed and that the repairs were acceptable. The Department will review the Contractor's proposal to close Non-Conformance ZPMC-0127 at that time.

Submitted by: Wright, Doug

Date: 28-Sep-2008

Attachment(s):

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000108

Subject: NCR No. ZPMC-0127

Dated: 02-Oct-2008

Contract No.: 04-0120F4
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No.: ABF-NPR-000127 **Rev:** 01

Contractor's Proposed Resolution:

Reference Resolution: Please find documentation of the repairs that were performed.
Please find attached.

Submitted by:

Attachment(s): ABF-NPR-000127R01;

Caltrans' comments:

Status: CLO

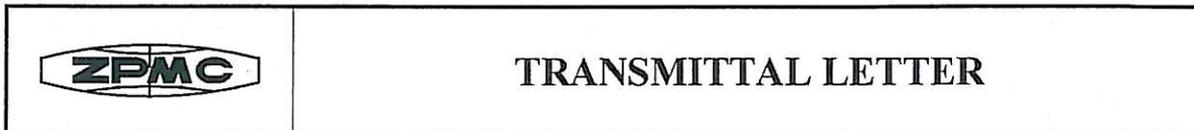
Date: 09-Nov-2008

The proposed resolution is acceptable. Submittal ABF-SUB-634R06 includes procedures for correcting overlap on the closed rib welds, and the welds in question were accepted as shown on the attached NDT reports. The Department concurs that Non-Conformance ZPMC-0127 is closed.

Submitted by: Wright, Doug

Date: 09-Nov-2008

Attachment(s):



PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 10/02/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR-000133(ZPMC-0127) FOR CLOSURE

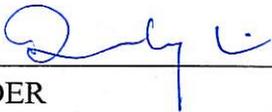
SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-305 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000133(ZPMC-0127)
- (3) COPY OF ZPMC INTERNAL NCR:NCR-B-059
- (4) COPY OF THE FINAL VT AND MT REPORTS OF THAT PANEL.

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:



PLAN HOLDER

RECEIVED 02 OCT 2008

1555

DATE



COMPANY

PHONE NO.

PLAN NUMBER: N/A
 #R787-QCP-102



No. B-305

LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-10-2

REGARDING: NCR-000133 (ZPMC-0127)

With this letter of response, ZPMC requests closure for caltrans **NCR-000133 (ZPMC-0127)**. ZPMC NDT operator considered that the surface profiles which describe in the non-conformance report were not the defects for this MT indication. Furthermore we have communicated with the QC guy for the detail information, the case is that the weld surface shape caused the fake defects, and then the weld had been smooth ground with the weld toe and adjacent base metal. Pass through the VT and MT check again that the weld had reached the acceptable criteria.

So ZPMC considers **NCR-000133 (ZPMC-0127)** can be closed, and we attach the VT and MT report to prove that the good quality of the corresponding weld areas.

Please reference attached documentation for acceptance and closure the **NCR-000133**.

ATTACHMENT:

NCR-000133 (ZPMC-0127)

ZPMC internal NCR-B-059

The final VT and MT reports of that panel

zhao shuangbao

2008.10.2.

Handwritten signature
ABF QCM
2 OCT. 08



Nonconformance Report

不符合项报告

Project Name: 项目名称: S.F.O.B.B 美国加州海湾大桥	NCR Number: NCR-000133 (ZPMC-0127) NCR 编号: NCR-B-059
Item: unacceptable weld surface profiles 名称描述: 不可接受的焊缝表面状况	Item Number: 件号:
Location: OBG repair shop 位置: 桥面返修车间	Drawing Number: 图号: DP-060-001
Date: 日期: 2008-5-14	

Description of Nonconformance:
不符合项状态描述:

The Contractor accepted weld repairs that resulted in unacceptable weld surface profiles. During QA magnetic particle testing of closed rib to box shell plate weld repairs, multiple indications were observed at the toe of welds that had previously been found acceptable by the Contractor. This occurred on repairs to deck panel DP-060-001.

ZPMC 在不可接受的焊缝表面外形上接受了返修结果。在监造对顶板单元 DP060-001 的 U 肋板和顶板焊缝进行磁粉检测的时候, 在以前 ZPMC 认为合格的区域发现了很多焊趾上的缺陷。

Work By: Li Liming Prepared by: Ji Yun Reviewed by QCE: zhaoshuangtao
 施工方: 2008.06.03 准备: 2008.5.29 质量工程师批准: 5.30

Drawing Error Material Defect Fabrication Error Other
 图纸错误 材料缺陷 制作错误 其他原因

Disposition: Use as is Repair Reject
 处理措施: 回用 返修 拒收

Recommendation:
建议

ZPMC 认为该 MT 指示, 为非缺陷。
 ZPMC thinks it wasn't defects for this MT indication.
 Prepared by: Li Liming Approved by QCA: Hu Gang
 准备: 2008.06.03 质量经理批准: 2008.6.3

Reason for Nonconformance:
不符合原因:

表面焊缝形状导致伪缺陷产生。
 预防措施 The weld's surface shape caused the fake defects.
 加强打磨。
 Enhance grinding. Approved by/批准: Li Liming 2008.06.03

Technical Justification for Use As-Is/Repair: Attachment Non-attachment
 回用或返修的技术依据: 附件 无附件

Reviewed /批准: _____

Verification: Acceptable Unacceptable
 确认: 可接受 不可接受

Verified by QCI/质检确认: _____ Reviewed by QCA/质检主任审核: _____



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NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV
375 BURMA ROAD
OAKLAND CA 95607

Date: 19-May-2008

Contract No: 04-0120F4
04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki
Attention: Mr. Dave Williams Consultant
Subject: NCR No. ZPMC-0127

Job Name: SAS Superstructure
Document No: 05.03.06-000108

Reference Description: Special Provisions, Section 8-3 Welding (p. 150)

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

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- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

Material Location: OBG

Lift:

Remarks:

The Contractor accepted weld repairs that resulted in unacceptable weld surface profiles. During QA magnetic particle testing of closed rib to box shell plate weld repairs, multiple indications were observed at the toe of welds that had previously been found acceptable by the Contractor. This occurred on repairs to deck panel DP-060-001.

Action Required and/or Action Taken:

Propose a resolution for the identified non-conformance to prevent future occurrences.

Transmitted by: Stanley Ku Sr. Bridge Engineer

Attachments: ZPMC-0127

cc: Rick Morrow, Gary Pursell, Brian Boal, Jason Tom, Ching Chao
File: 05.03.06

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Contract #: 04-0120F4
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9
 File #: 69.25B

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

Location: Changxing Island, Shanghai, PRC

Report No: NCR-000133

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 14-May-2008

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-0127

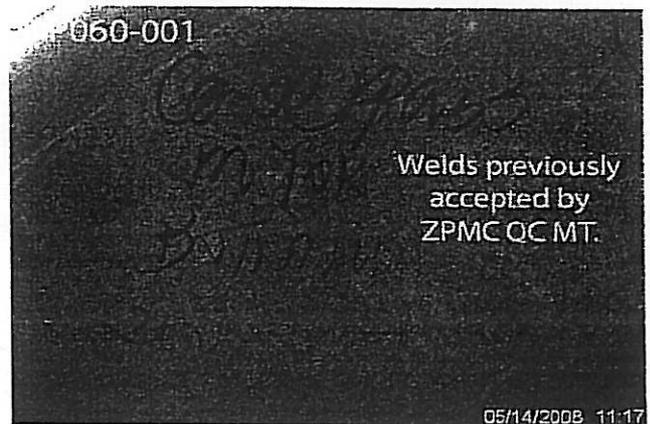
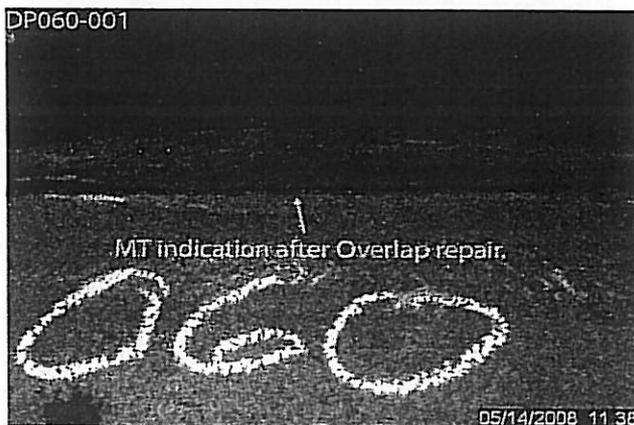
Type of problem:

Welding **Concrete** **Other**
Welding **Curing** **Procedural** **Bridge No:** 34-0006
Joint fit-up **Coating** **Other** **Component:** DP-060-001
Procedural **Procedural** **Descriptor:** OBG Deck Panel

Reference Description: Special Provisions, Section 8-3 Welding (p. 150)

Description of Non-Conformance:

The Contractor accepted weld repairs that resulted in unacceptable weld surface profiles. During QA magnetic particle testing of closed rib to box shell plate weld repairs, multiple indications were observed at the toe of welds that had previously been found acceptable by the Contractor. This occurred on repairs to deck panel DP-060-001.



Applicable reference:

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"Fillet weld surface profiles that interfere with the performance of the NDT procedure or produce questionable test results shall be ground to blend the toes smoothly with adjacent base metal."

Who discovered the problem: QA Inspector William Clifford

Name of individual from Contractor notified: ABFJV QC Inspector Warren Buehler

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Time and method of notification: Approximately 1300 hours by telephone on 05-14-2008.

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: 5/16/08 0915 hours by phone

QC Inspector's Name: ZPMC QC Inspector Sun Wei

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Lowry,Patrick

SMR

Reviewed By: Lowry,Patrick

SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-1218		DATE日期 2008.05.13	PAGE OF页码 1/1	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: DP60 OBG U-RIB		CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4		
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2008	
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620	
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC	
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm	
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2-X-S 12/14mm	
WELDING PROCESS 焊接方法	SAW+GMAW	TYPE OF JOINT 焊缝类型	T-JOINT	

WELD I.D. 焊缝编号	DISCONTINUITY 不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
DP060-001-001				ACC.		10%MT
DP060-001-002				ACC.		10%MT
DP060-001-003				ACC.		10%MT
DP060-001-004				ACC.		10%MT
DP060-001-005				ACC.		10%MT
DP060-001-006				ACC.		10%MT
DP060-001-007				ACC.		10%MT
DP060-001-008				ACC.		10%MT
DP060-001-009				ACC.		10%MT
DP060-001-010				ACC.		10%MT

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EXAMINED BY 主探 <u>Wang Wei</u> LEVEL-I SIGN 签名 / DATE日期 2008.05.13	REVIEWED BY 审核 <u>Cai Xinxin</u> LEVEL-II SIGN / DATE日期 2008.05.13
质量经理 / QCM <u>Hu Gang</u> 2008.5.21 签字 SIGN / 日期 DATE	用户CUSTOMER _____ 签字 SIGN / 日期 DATE

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, PRC**Report No:** NCS-000116**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 07-Nov-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0127**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component:
Procedural	Procedural	Description:	

Date the Non-Conformance Report was written: 14-May-2008**Description of Non-Conformance:**

The Contractor accepted weld repairs that resulted in unacceptable weld surface profiles. During QA magnetic particle testing of closed rib to box shell plate weld repairs, multiple indications were observed at the toe of welds that had previously been found acceptable by the Contractor. This occurred on repairs to deck panel DP-060-001.

Contractor's proposal to correct the problem:

The Contractor provided VT and MT reports after cover pass; submittal 634R06 addressed cover pass repair procedures. Although this does not correct the systemic problem, METS was directed by Team China Construction to close the NCR.

Corrective action taken:

Closed by Caltrans Construction. METS closed the NCR based on Construction's direction.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:** Stanley Ku and Doug Wright **Date:** 07-Nov-2008**Is Engineer's approval attached?** Yes No Email of concurrence to close NCR is on file.**Comments:**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Sang Le, who represents the Office of Structural Materials for your project.

Inspected By: Dautermann, Peter

Quality Assurance Inspector

Reviewed By: Dautermann, Peter

QA Reviewer