US Army Corps of Engineers

DCAF Bulletin

Design Construction Analysis Feedback

No. 97-06 Issuing Office: CEMP-CE Issue Date: 9 MAY 97 Exp. Date: 31 DEC 99

CEMP-C

Subject: Quality Assurance Report

Applicability: Guidance

Reference: ER 1180-1-6 Construction Quality Management
EP 415-1-260 Resident Engineers Management Guide

1. The relationship between the Government and the contractor is defined by more than the contract documents(plans & specifications). At best, it is evidenced by an atmosphere of trust between Government personnel and contractor personnel. Intrinsic in this relationship is a sensitivity to the priorities and goals of the other party. Judicious compromise is readily accepted, even sought after, melding into a common goal for completion of the job.

2. While this relationship usually exists to a greater or lessor degree at most jobsites, there are times when it does not. Disputes become commonplace, even for relatively minor items, and remain unresolved for extended periods of time stretching into months, even years. When this happens, differences become irreconcilable, and protecting the Government's interests is, to a large extent, relegated to field personnel who have daily contact with the contractor. Adequate documention becomes crucial.

3. The Quality Assurance Report is the best way to accurately reconstruct what happened on a job, and as such, it is often used by Government negotiators, arbitrators, auditors, attorneys, and by the Engineer Board as well as the courts. Daily reports are more accurate than someone's recollection. A well-done daily report is given much more credibility than someone trying to remember what happened. Failure to keep good reports literally can cost, and has cost the Corps substantial sums of money on claims.

Prepared in accordance with AR 25-30 by HQUSACE Directorate of Military Programs, 20 Mass. Ave. N.W. Washington D.C. 20314-1000

4. For these reasons, the report must be complete and detailed. In particular, the report should indicate: (a) weather during each shift and its effect on the job, if any; (b) activities being performed on the job; (c) conversations with the contractor or subcontractors, noting any disagreements or any instructions given; (d) possible differing site conditions, disruptions, or problems on the job site; (e) inspections done, tests used, details of nonconforming work noted and how the work is nonconforming; (f) visitors to the job site; and (g) a final very important item--areas of disagreement with the contractor's Quality Control Report. The QA report generally need not mention areas of agreement, and should never contain a blanket statement of agreement because the QC Report may contain items, not readily apparent, which are not in compliance with the contract.

5. If the job is under an active major dispute or in a claim situation, then the report should, to the extent that it is not accurately and completely documented in the contractor's QC report, also include: (a) the number of general contractor employees on the project, broken down by employee category, to include supervisory personnel, skilled trades, laborers, etc.; (b) the number of subcontractor employees broken down the same way; (c) and the type and quantity of equipment, as well as whether it is on standby or in for repairs.

6. Completion of the QA Report is not just routine paperwork. It is one of the most important tasks of the QA Representative. The report is our detailed record of what happened on the job. Occasionally, Government reports contain inadequate detail to help our negotiators resolve requests for adjustment. For example, the contractor claims certain equipment was used on a change order. The field personnel for the Government disagree, but the daily reports are silent. Even worse, sometimes the contractor's daily report will note the use of equipment in an extended overhead situation, or a differing site condition is encountered and the Government Report indicates only that the contractor's report has been reviewed and found satisfactory. When the claim arises, the QA Representative objects to the contractor's version of events, but it is now too late.

7. It should be emphasized here, that under the QC provisions of the contract, the contractor is also required to complete a daily

report. It is the responsibility of the QA Representative to insure that the contractor provides a complete, concise, and accurate QC report - a contract requirement that the Government is paying for. To the extent that the contractor's report records contractor activities, conditions, etc.,the QA documentation should be decreased. Therefore, contractor quality management performance, including reporting requirements, needs to be a primary focus.

8. Appended to this DCAF are detailed instructions for each section of ENG Form 2538-1 (Military) and ENG Form 2538-2(Civil). Also, appended to this report is an example of a combined Quality Control/Quality Assurance report format developed by Vicksburg District and one developed by Louisville District. These districts were in a pilot program to determine the efficacy of using a combined report. The option of using a combined format is now available to all districts IAW ER 1180-1-6. Please note, that regardless of which form is used, the total information required (both QC and QA) remains the same. A word of caution: the use of blanket statements of agreement in the QA portion of the combined form, may be even more harmful to the Government's position in a claim situation, than it would be in the standard form. The mere fact that this statement is on the same piece of paper could be construed as an endorsement of everything the contractor has entered on his portion of the form.

9. This DCAF has been coordinated with the following HQUSACE elements: Office of the Chief Counsel (CECC-C); Directorate of Civil Works (CECW-OC). POC for this DCAF is Charles Harris, CEMP-CE.

Encl

WILLIAM A. BROWN SR.
Acting Chief, Construction Division
Directorate of Military Programs

INSPECTORS QUALITY ASSURANCE REPORT (QAR) DAILY LOG OF CONSTRUCTION - MILITARY (ER 415-1-302)	THE OCR WILL BE ATTACHED TO OR FILED WITH THE QAR
	REPORT NUMBER 210
PROJECT Headquarters Complex, Ft. Arnold	DATE 4 April 94
CONTRACTOR (Or hired labor) Carlyle Construction Company	CONTRACT NUMBER DACA 17-93-C-0042

Indicate inclement weather conditions on reverse side.

WEATHER: Windy / Rain / Cool

Major emphasis should be on preparatory and initial inspections.

CQC inspection phases attended and instruction given:

Preparatory inspection : Setting roof trusses
Ceramic Tile

Initial inspection : Concrete tie beam
Bathroom fixtures

Note results of QA inspection for each activity. List deficiencies in detail. Indicate corrective action taken. Indicate tests performed.

Results of QA activities and tests, deficiencies observed, actions taken and corrective action of contractor. Include comment pertaining to contractors CQC activities.

Conducted pressure test on 6" main between STA 5+00 & 10+15

Pressure remained @ 65 psi for the full 4 hrs.

Record all verbal instructions givin to the contractor. Include the name and title of the person receiving the instructions.

VERBAL INSTRUCTION GIVEN TO CONTRACTOR: (Include names, reactions and remarks)

Don Jones, QC Manager was told to remove two of the 2" outlet boxes. They have more than one set of conductors entering the box, and are not IAW the specifications. Also, he was told that the metal exterior doors and frames that were delivered yesterday are not galvanized as required by the specs. Told Don Jones to perform a compaction test on the gas line backfill

Explain in some detail anything you observed, or that the contractor brought to your attention, that could result in a change order or a claim.

HAS ANYTHING DEVELOPED ON THE WORK WHICH MIGHT LEAD TO A CHANGE ORDER OR FINDING OF FACT? ☐ NO ☒ YES

The building waste line cracked under the parking lot entrance ramp. The contractor alleges that the pipe cracked because the thickness of cover required by the drawings was insufficient. An investigation will have to be conducted to determine the cause. Also, I observed a 50 Ton crane traversing the uncompacted pipe trench shortly before the waste line leak was detected

ENG FORM 2538-1-R, Sep 93 (MILITARY) Edition of Aug 89 may be used until exhausted. (Proponent CEMP-CE)

Encl 1/1

Insert details on inclement weather conditions. Provide description of work performed today. Indicate delays and the causes of the delays.

Information on progress of work, causes for delays and extent of delays, weather, plant, material, etc.

Weather: Temp - 45° min, 65° max
Rain - 0.5 inches, ending 1130 hrs

Topped out the north exterior masonry wall, and placed the first section of the concrete tie beam.
The contractor was delayed the second day for installation of quarry tile due to late submittal of samples.

Include in this section: (1)Items omitted from the QC report; (2)Issuance of a "Notice of Non Compliance"; (3)Disputes; (4)Orders to remove unsatisfactory work; (5)If the contractor is in a claim situation, or if appears imminent, or if an unpriced change order has been issued, a record of the contractor's labor material and equipment that is pertinent.

Information, instructions or actions taken not covered on QCR report or disagreements

The CQC report omitted any mention of the 2" outlet boxes that were removed because they did not conform to the specs.

List all safety violations and corrections that were omitted from the QC report. Include safety meetings held. If no deficiencies are noted, indicate positive results of your inspection (ie: Checked shoring in utility trench. No defiencies noted.).

SAFETY (Include any infractions of approved safety plan, safety manual or instructions from Government personnel. Specify corrective action taken.)

Checked GFI circuits in the temporary panel. All are working properly.

Self explanatory.

REMARKS (Include visitors to project and miscellaneous remarks pertinent to work.)

The DCE team from HQUSACE visited the site today.
Major deficiencies were found in the method of supporting the re-steel in the forms.

INSPECTOR'S SIGNATURE	DATE	SUPERVISOR'S INITIALS	DATE
Jim Richards	5 Apr 94	BC	6 April 94

REVERSE OF ENG FORM 2538-1-R

☆ USGPO 1990-718-543/10302

Encl 1/2

INSPECTORS QUALITY ASSURANCE REPORT (QAR)
DAILY LOG OF CONSTRUCTION - CIVIL
(ER 415-1-302)

WITH THE QAR

REPORT NUMBER: 332

DATE: 4 April 94

TO: Centerville Area Office

CONTRACT NUMBER: DACW 17-92 C-0053

PROJECT: Middle River Lock & Dam

WEATHER: Ptly Cldy / Rain / Hot

CONTRACTOR (Or hired labor): Gateway Builders

PORTION OF SCHEDULED DAY SUITABLE FOR OPERATIONS

STRUCTURAL EXCAVATION	BORROW EXCAVATION	EMBANKMENT	CONCRETE	STRUCTURE	TEMPERATURE MINIMUM	TEMPERATURE MAXIMUM
50 %	70 %	50 %	100 %	100 %	65	88

Include details in "Controversial Matters" on reverse side.

HAS ANYTHING DEVELOPED ON THE WORK WHICH MIGHT LEAD TO A CHANGE ORDER OR FINDING OF FACT? ☐ NO ☒ YES (Explain)

24 HOUR PRECIPITATION: INCHES 0.85 ENDING 11:00 AM

NUMBER OF GOVERNMENT EMPLOYEES

SUPERVISORY	OFFICE	LAYOUT	INSPECTION	TOTAL	LABOR
2	2	4	1	9	

RIVER STAGE: FEET 18' 6" TIME 10:30 AM

Do not repeat contractor's employees, if shown in QC report.

NUMBER OF CONTRACTOR'S EMPLOYEES

SUPERVISORY	SKILLED	LABORERS	TOTAL

NUMBER OF SHIFTS ☐ 1 ☐ 2 ☐ 3

FROM	TO	FROM	TO	FROM	TO
7:30 AM	4:00 PM	— M	— M	— M	— M

Attach list of the following: (a) Major items of equipment either idle or working, and (b) Number and classification of contractor personnel onsite. Note: If the contractor's Quality Control Report (QCR) contains the information it need not be repeated

CONTRACTOR/SUBCONTRACTORS AND AREA OF RESPONSIBILITY FOR WORK PERFORMED TODAY

a Gateway Builders — Prime (Concrete & Steel)
b Duval Electric — Electrical
c Mathews Mechanical — Hydraulic Systems
b Comfort Control — HVAC

Provide a description of work by each contractor. Do not say, "See QC report." Letters should correspond to prime and subs above.

WORK PERFORMED TODAY *(Indicate location and description of work performed. Refer to work performed by prime and/or subcontractors buy letter in Table above.)*

a. Placed concrete monolith #83; welded tainter gates
b. Started wiring control house
c. Continued installation of controls for tainter gate #2
d. Set heat pumps

If this is the first day of work after one or more idle days, it should be stated here. Also state the reason (ie: holiday, strike, weather, etc.)

Days of no work and reasons for same:
No work since wed. because of rain

Estimate percent completion of major activities. Include estimate of delays of significant items.

Information on progress of work, causes for delays and extent of delays. Plant, material, etc

Concrete 34 %
Steel fabrication 22 %
Hydraulic Systems 11 %
HVAC 8 %
Installation of hydraulic systems has been delayed approximately 23 days due to late delivery of components.

ENG FORM 2538-2-R, Sep 93 (CIVIL) Edition of Aug 89 may be used until exhausted (Proponent CEMP-CE)

Encl 2/1

Major emphasis should be on preparatory and initial inspections.

CQC INSPECTION PHASES ATTENDED AND INSTRUCTIONS GIVEN
Preparatory: Masonry - discussed protection of unfinished work Initial: Electrical wiring, setting heat pumps. Follow Up: Concrete placement, hydraulic systems installation

Note results of QA inspection for each activity. List deficiencies in detail. Indicate corrective action taken. List tests done or needed.

RESULTS OF QA INSPECTIONS AND TESTS, DEFICIENCIES OBSERVED, ACTIONS TAKEN AND CORRECTIVE ACTION OF CONTRACTOR INCLUDE COMMENT PERTAINING TO CONTRACTORS CQC ACTIVITIES
Contractor started green cutting the surface of monolith #83 before the initial set. This caused deep grooves in the surface.

Record all verbal instructions giv n to contractor. Include name and title of person receiving instructions.

VERBAL INSTRUCTIONS GIVEN TO CONTRACTOR (Include names, reactions and remarks)
John Smith, QC Manager, was told to delay green cutting until after the initial set to avoid cutting the concrete bond surface. He agreed, and also intends to reduce the pressure on the nozzle.

Record details that support a "Yes" check on the front. Explain in some detail anything brought to your attention by the contractor, or that you have observed, that could lead to a change order or a claim.

CONTROVERSIAL MATTERS IN DETAIL
The drawings show the miter gate sill at the wrong elevation. This may require a change in the seal angle of the miter gate. The contractor sent an RFI yesterday. It was forwarded to Engineering Division in District.

Include in this section:(1)Items omitted from the QC report; (2)Issuance of a "Notice of Non-compliance"; (3)Disputes; (4)Orders to remove unsatisfactory work; (5)If the contractor is in a claim situation, or if a claim appears imminent, or if an unpriced change order has been issued, a record of the contractors labor material and equipment that is pertinent.

INFORMATION, INSTRUCTIONS OR ACTIONS TAKEN NOT COVERED IN QCR REPORT OR DISAGREEMENTS
The CQC report failed to mention the cutting of the bond surface on Monolith #83. The QC manager was told to include it in the next report. He agreed.

Self explanatory

REMARKS (Include visitors to project and miscellaneous remarks pertinent to work)
The DCE team from HQUSACE visited the site today. Major deficiencies were noted concerning surface defects in the concrete.

List all safety violations and corrections that were omitted from the QC report. Include safety meetings held. If no deficiencies are noted, indicate positive results of your inspection (ie:Checked shoring in utility trench. No deficiencies noted).

SAFETY (Include any infractions of approved safety plan, safety manual or instructions from Government personnel. Specify corrective action taken.)			
Checked the GFI circuits in the temporary panel. All are working properly.			
INSPECTOR'S SIGNATURE	DATE	SUPERVISOR'S INITIALS	DATE
Robert Allen	5 April 94	T. G	7 April 94

CONTRACTOR PRODUCTION REPORT
(Attach Additional Sheets If Necessary)

Date:

Contract No.	Title and Location:	Report No.

Contractor:	Superintendent:

AM Weather:	PM Weather:	Max Temp:	Min Temp:

WORK PERFORMED TODAY

Work Location and Description	Employer	Number	Trade	Hrs.

JOB SAFETY

Was a job safety meeting held this date? (If YES attach copy of the meeting minutes)	Yes	No	Total work hours on job site this date:	
Were there an lost time accidents this date? (If YES attach copy of completed OSHA report)	Yes	No	Cumulative total of work hours from previous report:	
Was trenching / scaffold / HV electrical / high work done? (If YES attach statement or checklist showing inspection performed)	Yes	No	Total work hours from start of construction:	
Was Hazardous Material / Waste Released into the environment? (If YES attach description of incident and proposed action)	Yes	No	Safety requirements have been met? Yes No	

List safety actions taken today / safety inspections conducted:

Equipment / Material Received today to be incorporated in job:

Construction and plant equipment on job site today. Include number of hours used today.

Remarks:

Contractor Superintendent

Date

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(Front)

Sheet _1_ of _1_

ENCL 3/1

	CONTRACTOR QUALITY CONTROL REPORT (Attach Additional Sheets If Necessary)	Date:

Phase	Y- Yes, N- No, see remarks Blank- Not Applicable		Identify definable feature of work location and list personnel present
PREPARATORY	The plans and specs have been reviews?		
	The submittals have been approved?		
	Materials comply with approved submittals?		
	Materials are stored properly?		
	Preliminary work was done correctly?		
	testing plan has been reviewed?		
	Work method and schedule discussed?		

				Testing performed and who performed test
INITIAL	Preliminary work was done correctly?			
	Sample has been prepared / approved?			
	workmanship is satisfactory?			
	Test results are acceptable?			
	work is in compliance with the contract?			

				Testing performed and who performed test
FOLLOW UP	Work complies with contract as approved in initial phase?			

Rework items identified today (Not corrected by close of business)	Rework items corrected today (From rework item list)

Remarks:

On behalf of the contractor, I certify that the report is complete and correct and equipment and materials used and work performed during the reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.

Authorized QC manager at site

Date:

GOVERNMENT QUALITY ASSURANCE REPORT	Date:

Government Quality Assurance Representative

Date:

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(Back)

Sheet _1_ of _1_

ENCL 3/2

CONSTRUCTION QUALITY MANAGEMENT REPORT

Contractor:_____ Date: _____

Contract No. DACW38-_____ Daily Report No. _____

Project Title & Location:_____

Weather:_____ Precipitation: _____in. Temp.:_____ Min _____ Max

Work Control Feature:_____ Portion of Day Suitable for Work:____%

1. Contractor/Subcontractors and Area of Responsibility:

NUMBER:	TRADE	HOURS	EMPLOYER	LOCATION/DESCRIPTION WORK

2. Operating Plant or Equipment. (Not hand tools)

PLANT/EQUIPMENT	DATE OF ARRIVAL/DEPART	DATE OF SAFETY CHECK	HOURS USED	HOURS IDLE	HOURS REPAIR

3. Work performed today: (Indicate location and description of work performed by prime and/or subcontractors by number in table (1) above.)

_____

4. Results of control activities: (Indicate whether P- Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment I-A or I-B, respectively. When network analysis system is used, identify work by use of I-J numbers.)

5. Tests performed as required by plans and/or specifications:

6. Materials received:

7. Submittals Reviewed:

(a) Submittal No.	(b) Spec/Plan Reference	(c) By Whom	(d) Action

8. Offsite surveillance activities, including action taken:

9. Job safety: (Report violations; Corrective instructions given; Corrective actions taken.)

10. Remarks: (Instructions received or given. Conflict(s) in Plans and/ or specifications.)

_____

_____

_____

_____

_____

_____

_____

_____

Contractor's Verification: On behalf of the Contractor, I certify this portion of the report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the plans and specifications, to the best of my knowledge, except as noted above.

_____
Authorized CQM System Manager Date

GOVERNMENT QUALITY ASSURANCE REPORT

1 Did you observe any QC testing/inspections or perform any QA evaluations or verification of materials? ___*Yes ___ No

2 Were any instructions given to or information received from the Contractor? ___*Yes ___ No

3 Has anything developed on the work which, in your opinion, might lead to a change order or contract claim? ___*Yes ___ No

- -

4 Safety Observations and General Comments/Remarks. (use back of this form if more space is needed.) Answers to1-3 above with an asterisk (*) are to be explained below.

I certify that this portion of the report is complete and accurate to the best of my knowledge.

_____ _____
Government Quality Assurance Representative Date