

Washington Public Power Supply System

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July 18, 1983

Docket Number 50-397
G-02-83-618

Responds to: N/A
Response required by: N/A

Mr. J. B. Martin, Regional Administrator
Nuclear Regulatory Commission
Region V
1450 Maria Lane Suite 210
Walnut Creek, California 94596

Subject: SUPPLY SYSTEM NUCLEAR PROJECT NO. 2
FIFTEENTH PROGRESS REPORT - 10CFR50.54(f)

Reference: a) G02-80-153, N.O. Strand to USNRC, "WPPSS Nuclear
Project No. 2 Docket No. 50-397, EA-80-20, Notice
of Violation and Additional Information -
10CFR50.54(f)," dated July 17, 1980

This is the fifteenth Progress Report on the actions we have taken in regard to our commitments in Reference a). This quarterly report covers activities of our Quality Verification Program during the period of April through June 1983.

During the month of June, two important interface meetings occurred between the Supply System and the Region V. As a result of these meetings, the Supply System committed to perform additional verification tasks. These are discussed along with our general progress in the attachments.

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J.B. Martin
Page 2

Please contact me if you have any questions on this matter.

C.S. Carlisle
C.S. Carlisle
Program Director, WNP-2

CSC:RLK:EEK

- Attachments:
1. WNP-2 Project Review of Completed Safety-Related Work - Progress Report
 - 1A. Prepurchase and Inactive Contracts - Status Report
 - 1B. Deficiency Document Review - Status Report

cc: WS Chin, BPA - Richland, WA
JA Forrest, B&R - Richland, WA
PE Grady, BPA - WNP-2
JB Knotts, Jr., Debevoise & Liberman, Washington, DC
ND Lewis, EFSEC, Olympia, WA
TA Mangelsdorf, Bechtel - WNP-2
A Toth, NRC, Resident Inspector, WNP-2
JJ Verderber, B&R, Woodbury, NY

FIFTEENTH PROGRESS REPORT
WNP-2 PROJECT REVIEW
OF
COMPLETED SAFETY-RELATED WORK

A. INTRODUCTION

This report covers activities of the Supply System's Quality Verification Program (QVP) during the months of April, May, and June, 1983. Reinspection of welded structural steel installed by an inactive contractor, initiated in the previous report period, has been completed. Our special review of prepurchase and inactive (PP&IA) contracts, designed to strengthen confidence in the adequacy of work produced by those contractors, was initiated during this report period. However, the depth of this review was questioned by the NRC prior to completion, and additional work was initiated. The analysis of results of previously-completed re-inspections of active contractors' work continues along with preparation of reports. Our review and reporting of Engineering and QC documents for Special Tasks continues.

B. GENERAL INFORMATION

1. In our last progress report, an additional action of revising our commitment summary to record general information and identify changes was discussed. During this report period Letter No. G02-83-339, dated April 18, 1983, was sent with a revised summary of commitments for your information and use.
2. A presentation of QVP results and status was made to NRC-Region V representatives at Walnut Creek on June 7, 1983, as part of a general WNP-2 Project status presentation. During the meeting several questions/issues were discussed and eight specific issues arose which were further addressed by the Supply System at a meeting with Region V representatives at the Project Site on June 21, 1983. These are enumerated below:
 - (1) Hardware supplied under prepurchase contracts and work performed by inactive contractors may not have been sampled for reinspection.
 - (2) Define the logic for sample selection and distribution of the sample size for active contracts. Include consideration of the time period when work was accomplished.
 - (3) Provide the basis for judging the acceptability of contractors' past work based on QVP results.

- (4) Define the methodology for evaluating the results of review and reinspection in determining the need, if any, for expansion of sample size.
- (5) Describe the program for evaluation of NDE contractors' work, including the consideration of sampling vendor radiographs.
- (6) Prepurchase and inactive contractors' procedures may not have been examined for technical adequacy.
- (7) It would be desirable for the NRC to review the planned content of the final QVP Summary Report.
- (8) The impact of the NRC Construction Assessment Team's findings should be considered in the conclusions reached by the QVP.

At the June 21 meeting, information was provided in order to satisfy issues, 2, 3, 4, and 7. Information was also provided to describe three commitments made at the meeting to address issues 1, 5, 6, and 8. These commitments are:

- The special PP&IA review program, originally designed to assure our document-review-oriented program was satisfactory, is being extended to address issues 1 and 6.
- An NDE reverification program is being initiated to address issue 5.
- A comparison of the Construction Assessment Team's findings with QVP results will be made and analyzed to address issue 8.

Information pertaining to all eight issues will be included in the QVP Overview Report.

3. The schedule for completion of the QVP was also discussed in the June 21 meeting. As a result of the new commitments, our reports will be delayed beyond original plans.

Our original intent was to complete the lower-level detailed reports first, then the intermediate-level task reports, and finally the Overview Report. Because the task reports will include summary and general information, somewhat similar to the Overview Report, we now intend to prepare the Overview Report as soon as the detailed reports are complete. This will afford the opportunity for NRC Region V review of QVP results while the specific task reports are being completed by the Supply System.

We are developing a new schedule for completing QVP activities in a manner which provides the Overview Report, an outline of which was furnished at the June 21 meeting, to you approximately September 1. Completion of the intermediate-level task reports will follow.

4. Technical Audit Associates (TAA) performed an audit of the QVP on April 29, 1983, and listed two "findings" in an audit report dated May 16, 1983. These findings were both related to contract 215 equipment installation reinspection, which was not part of the scope of QVP. A response explaining how equipment reinspection is covered by the Project was sent to TAA on May 26, 1983.

C. SYSTEMS COMPLETION

1. The following is a brief report for each of the active site contract reverification activities:
 - o Contract 210A, Peter Kiewit Sons - Complete, reported earlier.
 - o Contract 213A, Pittsburgh-Des Moines Steel - Complete, reported earlier. The Reverification Report for this contract was reviewed by an NRC Region V representative during the report period.
 - o Contract 215/250, WBG/Bechtel - The following is a summary of work during this report period:
 - Startup Systems - The remaining two (of thirty-seven) system reports were completed by the Bechtel Reverification Group (BRG) and approved by Bechtel QA. These documents complete the reporting of detailed hardware reinspection results for contract 215.

Previously-completed system reports are being updated and clarified to accommodate new information. Twenty-nine such revisions are being made and will be issued with the contract 215 Reverification Report.
 - Structural Steel - A report, similar to the system reports, for the reinspection of contract 215 structural steel construction was completed by the BRG and approved by BQA. The report records that a "low incidence of unacceptable findings and the minor nature of the individual defects when evaluated with respect to the magnitude of welding and weld patterns specified in the design" provide a high level of confidence in the safety and quality of the contract 215 structural steel.

- Results Analysis - Analysis of all of the contract 215 reinspection results by BRG and the A/E began during the report period. Based on comments received from the Resident Inspector, this work is being extended in detail to determine the possibility of component failure which could result from deficiencies identified in our reinspections.
- Contract 215 Reverification Report - A draft of this report is being prepared by BRG to cover the reinspections, the system reports, related program evaluations, the structural steel report, analysis of results, and overall conclusions drawn from these activities. The majority of sections for this report are currently under review by BQA and the QVP office. The remaining sections will be prepared upon completion of the results analysis.
- Contract 216, The Waldinger Corporation - Complete, reported earlier. An addendum to the reverification report has been completed, reviewed, approved, and distributed in late April.
- Contract 217, Sentry - Complete, reported earlier.
- Contract 218, Fischbach/Lord (F/L) - The draft of the final reverification report has been reviewed by BQA and the QVP office during this report period. In response to Region V's issue (2), discussed in General Item 2., the BRG has compiled information on the time distribution of the reinspection sample. This information is being incorporated into the report.
- Contracts 219/234, O. B. Cannon - Complete, reported earlier. In response to the Technical Audit Associates' (TAA) request to clarify coating reinspection which resulted in rework, Revision #1 to these contract reports have been issued.
- Contract 220, Johnson Controls, Inc. - The final reverification report has been reviewed, approved, and issued in early May.

D. PREPURCHASE AND INACTIVE CONTRACTS

1. With the completion of the documentation review for contract 7426, Northwest Copper, all originally-planned documentation reviews for the prepurchase and inactive contracts are complete. Contract 7426 is being evaluated by the QVP office. The status report (Attachment 1A to this report) has been updated to reflect the current prepurchase and inactive contract review status. The overall task report is currently in progress and nearing completion.

2. During this report period, the contract-206 welded-structural-steel reinspection was completed and the final report of those activities is underway.

The review and evaluation of the follow-up contracts, contracts 206A (Peter Kiewit), 210 (Peter Kiewit) and 6426 (Wright-Schuchart-Harbor, interim contract), completed the contract 206 (Bovee-Crail) work. Reports of those activities have been prepared and are under review at the QVP office.

3. A special review of the critical components for WNP-2 provided by prepurchase and inactive (PP&IA) contracts was initiated in this report period. A list of these critical components was developed by Project Engineering, from which a sample was selected for review. This resulted in a sample of quality records, vendor qualifications and technical adequacy of procedures for components in 20 of the 62 PP&IA contracts being reviewed. A field verification walkdown of this hardware was performed to confirm that components were accurately represented by the records. Reinspection of components has not yet been accomplished.

Procedures for this program and the review results were examined by an NRC Region V representative, and the program was discussed at the June 7 Region V meeting. As a result of our discussions, it was decided to reconsider the list of 62 PP&IA contracts for possible additional review. This additional review is being conducted in four parts, any or all of which may be applied to a particular contract or component. The review strengthens previous assessments of work adequacy and assures attention to our commitment to address the need for reinspection even though the records indicate the hardware is adequate, as discussed in item B.2. of this report. The four parts of our additional verification review are:

- Review of Vendor Qualifications
- Review of Technical Adequacy of Vendor Procedures
- Review of Quality Documentation
- Sample Reinspection of Installed Components (including components from the 20 contracts discussed above)

E. SPECIAL TASKS

1. Deficiency Document Review - All procedure and document reviews for site documents identified under this task have been completed. Progress continues on the preparation of reports verifying the technical adequacy of those documents which disseminated design change

information to contractors. Of eight types of documents examined, the reports on two have been reviewed and approved, one report is in final draft following review, and drafts of the remaining five are underway. No trends of technically inadequate document dispositions have been demonstrated.

The review of contractors' internal documentation and procedures has been completed on eighteen of twenty-three contracts identified. The review of the remaining five contracts is approximately 75% complete and is expected to be completed early in the next report period.

The status of our reviews is summarized in the charts comprising Attachment 1B to this report.

2. Personnel Qualifications - The examination of personnel qualifications reviews conducted under the Restart Program continued during this period. The results of this examination, combined with similar information from reviews performed in the QVP, will be assessed to determine if further investigation is warranted. An analysis of the Deficiency Document Review results for engineering personnel employed by both the A/E and the construction contractors was completed during this period, and preparation of the report began.
3. Receiving Inspections - No progress during this report period.
4. Grout Evaluation Program - Complete, reported earlier.
5. Evaluation of Concrete Quality Records - Early in the report period, it was decided that, since visual nondestructive inspection of concrete would generally not provide enough information to determine the quality or adequacy of concrete, a special technical review of concrete quality records was initiated. Such a review was considered to be useful in assessing the adequacy of concrete installed prior to the stop work order of July, 1980. This review will be reported as a fifth special task.

The task includes: 1) A review of procedures for formwork, reinforcing steel, and concrete placement; deficiencies identified on nonconformance reports and corrective action documents during the construction; and QC inspection records; 2) analysis of the review results to determine if significant problems exist; and 3) preparation of a report.

The technical reviews have been completed and the analysis and report preparation are well underway, with completion estimated at 90%.

FIFTEENTH PROGRESS REPORT

SUPPLY SYSTEM REVIEW OF PREPURCHASE AND INACTIVE CONTRACTS STATUS REPORT

CONTRACTOR	DESCRIPTION OF CONTRACTOR'S WORK	STATUS OF OWNER FINAL DOCUMENTATION REVIEW (% COMPLETE)	RESULTS OF DOCUMENTATION REVIEW	STATUS OF OWNER EVALUATION ON NEED FOR REINSPECTION (% COMPLETE)
2808-2 General Electric	NSSS	100	No Deficiencies	100
7 Battelle	Meteorological Study	100	No Deficiencies	100
17 Pathway Bellows	Refueling Bellows	100	No Significant Deficiencies	100
18 Farr Company	Standby Gas Treatment & HEPA Filters	100	No Deficiencies	100
22A Joy Manufacturing	HVAC Fans	100	No Significant Deficiencies	100
23 Byron Jackson	Standby Service Water Pumps	100	No Deficiencies	100
24 HJICO Inc	Shop Fabricated Tanks	100	No Deficiencies	100
28 Buffalo Forge	HVAC Fans	100	No Significant Deficiencies	100
31A Whiting	Turbine Generator and Reactor Building Cranes	100	Deficiencies resolved, Reinspection Completed	100
32CD Clayton	JIB Overhead Cranes	100	No Significant Deficiencies	100
35A Crane Co.	Pumps & Motors	100	No Deficiencies	100
36 Acme Concrete	Production & Delivery of Concrete	100	No Significant Deficiencies	100

FIFTEENTH PROGRESS REPORT

SUPPLY SYSTEM REVIEW OF PREPURCHASE AND INACTIVE CONTRACTS STATUS REPORT

CONTRACTOR	DESCRIPTION OF CONTRACTOR'S WORK	STATUS OF OWNER FINAL DOCUMENTATION REVIEW (% COMPLETE)	RESULTS OF DOCUMENTATION REVIEW	STATUS OF OWNER EVALUATION ON NEED FOR REINSPECTION (% COMPLETE)
41A Velan Valve	Nuclear Valves	100	No Significant Deficiencies	100
41B Anchor/Darling	Nuclear Valves	100	No Deficiencies	100
42A Fisher Controls	Control Valves	100	No Deficiencies	100
42B Fisher Controls	Control Valves	100	No Significant Deficiencies	100
47A Westinghouse	Switchgear	100	No Deficiencies	100
48 Westinghouse	480 Volt Substation	100	No Deficiencies	100
49 I-T-E Imperial	Motor Control Centers	100	No Significant Deficiencies	100
51A ESB Inc.	Batteries	100	No Deficiencies	100
51B Power Conversion	Battery Chargers	100	No Significant Deficiencies	100
52 Solid State Controls	Uninterruptible Power Supply	100	No Deficiencies	100
53 Stewart Stevenson	Diesel Generators	100	Documentation Deficiencies Being Addressed, Reinspection Completed	100
55 Westinghouse	Containment Electrical Penetrations	100	No Significant Deficiencies	100
57 Kinometrics	Accelerometers	100	No Deficiencies	100

FIFTEENTH PROGRESS REPORT

SUPPLY SYSTEM REVIEW OF PREPURCHASE AND INACTIVE CONTRACTS STATUS REPORT

CONTRACTOR	DESCRIPTION OF CONTRACTOR'S WORK	STATUS OF OWNER FINAL DOCUMENTATION REVIEW (% COMPLETE)	RESULTS OF DOCUMENTATION REVIEW	STATUS OF OWNER EVALUATION ON NEED FOR REINSPECTION (% COMPLETE)
58 Jelco	Instrument Racks	100	No Significant Deficiencies	100
59 GE	Instrument & Control Boards	100	No Deficiencies	100
60A Sentry Equipment Corp.	Sampling and Analysis Systems	100	No Significant Deficiencies	100
62A Okonite	Electrical Cable	100	No Deficiencies	100
62B Raychem	Electrical Cable	100	No Significant Deficiencies	100
62C Rockbestos	Electrical Cable	100	Deficiencies Resolved	100
67 H K Porter	Air Handling Units	100	No Deficiencies	100
68 BIF	Isolation Valves	100	No Significant Deficiencies	100
69 Velan	Check Valves	100	No Significant Deficiencies	100
71 Air Products & Chemicals	Hydrogen Recombiner	100	No Deficiencies	100
73 Elgar	15KVA Inverters	100	No Deficiencies	100
90 Leckenby	Pipe Whip Restraints	100	Deficiencies Identified and Corrected thru Action Plan	100
92A Ingersoll Rand	Sampling Probes	This is an Active Pre-purchase Contract	No Deficiencies	100

FIFTEENTH PROGRESS REPORT

SUPPLY SYSTEM REVIEW OF PREPURCHASE AND INACTIVE CONTRACTS STATUS REPORT

CONTRACTOR	DESCRIPTION OF CONTRACTOR'S WORK	STATUS OF OWNER FINAL DOCUMENTATION REVIEW (% COMPLETE)	RESULTS OF DOCUMENTATION REVIEW	STATUS OF OWNER EVALUATION ON NEED FOR REINSPECTION (% COMPLETE)
928 Kamar Sciences	Radiation Monitoring	This is an Active Pre-purchase Contract	No Deficiencies	100
93 GFE Controls	Vacuum Breaker Valves	100	No Deficiencies	100
94 B F Siew	MSRV Discharge	100	No Deficiencies	100
12409 Buehler Nuclear Products	BWR High Density Spent Fuel Racks	100	No Significant Deficiencies	100
6426 Wright-Schuchart-Harbor	Interim Construction	100	No Significant Deficiencies Special Scoping Review Completed	100
6809 Bethlehem	Reinforcing Steel	100	No Significant Deficiencies	100
6904 Welk Brothers	Annular Sleeves	100	No Significant Deficiencies	100
6905 Welk Brothers	Skimmer Surge Tank	100	No Significant Deficiencies	100
6912 Pybus	Structural Steel	100	No Significant Deficiencies	100
6917 Texas Pipe	Pipe Spools	100	No Significant Deficiencies	100
7012 Brand Industrial	Form Separation System	100	No Significant Deficiencies	100
7426 Northwest Copper	Exhaust Duct	100	No Significant Deficiencies	10
205 Stewart Erikson	Reactor Building Substructure	100	No Significant Deficiencies	100

FIFTEENTH PROGRESS REPORT

SUPPLY SYSTEM REVIEW OF PREPURCHASE AND INACTIVE CONTRACTS STATUS REPORT

CONTRACTOR	DESCRIPTION OF CONTRACTOR'S WORK	STATUS OF OWNER FINAL DOCUMENTATION REVIEW (% COMPLETE)	RESULTS OF DOCUMENTATION REVIEW	STATUS OF OWNER EVALUATION ON NEED FOR REINSPECTION (% COMPLETE)
206 Bovee Crail	General Construction	100	Reinspections of Struc. Stl. Completed	100
206A Peter Kiewit	Architectural Const.	100	No Significant Deficiencies Special Scoping Review Completed	100
207 PDM	Structural Steel	100	No Significant Deficiencies	100
209 Rigging Int.	Rigging of Reactor Pressure Vessel	100	No Deficiencies	100
210 Peter Kiewit	Architectural Const.	100	Open Documentation Deficiencies Resolved, Special Scoping Review Completed	100
213 PDM	Primary Containment Vessel	100	No Significant Deficiencies	100
221 PTL	Testing Laboratory	100	Open Deficiencies Being Resolved Thru Corrective Action Process	100
225 McMillin Bros.	Make Up Water Pumphouse	100	No Significant Deficiencies	100
226 Sime	Reactor Building Excavation	100	No Deficiencies	100
233 B F Shaw	Spray Pond Alteration	100	No Deficiencies	100
235 GEI & SE	Reactor Internals Instrument Modifications	100	No Significant Deficiencies	100

FIFTEENTH PROGRESS REPORT

Attachment 1B
Page 1 of 4

DEFICIENCY DOCUMENT REVIEW SUMMARY
QC - I CONTRACTS

QUALITY CLASS-I SEISMIC-I SITE WORK PERFORMED		SITE DOCUMENTATION SUBJECT TO QVP REVIEW															
Contract	Contractor	PCN		PED		CWR		ECN		RCC		CO		NCR		RFI	
		Review	Status+	Review	Status+	Review	Status+	Review	Status+	Review	Status+	Review	Status+	Review	Status+	Review	Status+
205*	Stewart-Erickson	Yes	7	E	7	E	7	Yes	7	E	7	Yes	7	Yes	11	Yes	7
206*	Brvee-Trail	Yes	7	E	7	Yes	7	Yes	7	Yes	7	Yes	7	Yes	11	E	7
206A*	Peter Kiewit Sons'	Yes	7	Yes	7	E	7	Yes	7	Yes	7	Yes	7	Yes	11	Yes	7
207*	Pittsburgh-Des Moines	Yes	7	Yes	7	Yes	7	Yes	7	Yes	7	Yes	7	Yes	11	Yes	7
209*	Lampson Inc	Yes	7	D	7	E	7	Yes	7	Yes	7	Yes	7	D	7	D	7
210*	Peter Kiewit Sons'	Yes	7	Yes	7	E	7	Yes	7	Yes	7	Yes	7	Yes	11	Yes	7
210A	Peter Kiewit Sons'	Yes	7	B	7	B	7	Yes	7	E	7	Yes	7	B	7	B	7
6426*	Wright Schuchart Harbor	Yes	7	E	7	Yes	7	Yes	7	Yes	7	Yes	7	Yes	11	Yes	7
213*	Pittsburgh-Des Moines	Yes	7	Yes	7	E	7	Yes	7	Yes	7	Yes	7	Yes	11	Yes	7
213A*	Pittsburgh-Des Moines	Yes	7	Yes	7	E	7	Yes	7	F	7	Yes	7	Yes	11	Yes	7
215	WBI/Boecon/GERI	Yes	7	Yes	7	F	7	Yes	7	F	7	Yes	7	Yes	11	Yes	11
216	Waldinger	Yes	7	Yes	7	F	7	Yes	7	F	7	Yes	7	Yes	11	Yes	7
217	Seniyy	Yes	7	Yes	7	F	7	Yes	7	F	7	Yes	7	Yes	11	Yes	7
218	Fischbach/Lord	Yes	7	Yes	7	F	7	Yes	7	F	7	Yes	7	Yes	11	Yes	7
219	O.B. Cannon	Yes	7	Yes	7	F	7	Yes	7	F	7	Yes	7	Yes	11	Yes	7
720	Johnson Controls	Yes	7	Yes	7	F	7	Yes	7	F	7	Yes	7	Yes	11	Yes	7
221*	Pacific Testing Labs	Yes	7	E	7	Yes	7	Yes	7	Yes	7	Yes	7	Yes	11	Yes	7
221A	Pacific Testing Labs	Yes	7	D	7	E	7	Yes	7	E	7	Yes	7	D	7	D	7
225*	McMillan Brothers	Yes	7	D	7	E	7	Yes	7	Yes	7	Yes	7	Yes	11	Yes	7
726	Sime Construction Co.	Yes	7	E	7	E	7	Yes	7	E	7	Yes	7	Yes	7	E	7
233*	RF Shaw	Yes	7	Yes	7	Yes	7	Yes	7	Yes	7	Yes	7	Yes	11	Yes	7
234	O.B. Cannon	Yes	7	Yes	7	E	7	Yes	7	E	7	Yes	7	Yes	11	Yes	7
235	ICE IS&E	Yes	7	D	7	E	7	Yes	7	E	7	Yes	7	D	7	D	7

NOTES:

- A - Review not commenced
- B - No QC-I Work performed prior to 7/80
- C - Special Review
- D - No QC-I or QC-II/SC-1 Documentation closed prior to 7/80
- E - Document not used for this contract
- F - Document reviewed under CAR 1475
- * - Denotes Inactive Contract
- + - Numbers indicate action in Flow Chart, Page 4

LEGEND:

- PCN - Project Change Notice
- PED - Project Engineering Directive
- NCR - Nonconformance Report
- RFI - Request For Information
- ECN - Engineering Change Notice
- CWR - Contractor Waiver Request
- RCC - Request for Contract Change
- C.O. - Change Order

FIFTEENTH PROGRESS REPORT

DEFICIENCY DOCUMENT REVIEW TASK
NONCONFORMANCE REPORT (NCR)
REVIEW SUMMARY

CONTRACT	CONTRACTOR	CONTRACT ACTIVITY	NO. OF NCR'S CLOSED PRIOR TO 7/80	SAMPLE	DOCUMENTS IDENTIFIED REQUIRING CLARIFICATION	CLARIFICATION PROVIDED - NCR CLEARED	REMARKS
205*	Stew-Erikson	Rx Bldg. Substructure	31	4	0	-	
206*	Bovee-Crall	General Construction	417	42	0	-	
206A*	Peter Kiewit Sons'	Arch. Construction	387	39	4	4	
207*	Pittsburgh-Des						
	Moines Steel Co.	Structural Steel	32	3	1	1	
209*	Lampson Inc.	Rigging of Reactor Pressure					
		Vessel	2	0	-	-	
210*	Peter Kiewit Sons'	Arch. Construction	41	5	0	-	
210A	Peter Kiewit Sons'	Arch. Construction	A	A	-	-	
6426*	Wright Schuchart						
	Harbor	Interim General Construction	113	11	0	-	
213*	Pittsburgh-Des						
	Moines Steel Co.	Primary Cont Vessel	104	10	1	1	
213A*	Pittsburgh-Des						
	Moines Steel Co.	Primary Cont Vessel Retrofit	75	10	1	1	
215	WSH/Boecon/GERI	Mechanical Construction	1016	126	11	11	
216	Waldinger	HVAC, Plumbing	422	49	15	15	
217	Sentry	Fire Protection	3	1	0	-	
218	Fischbach/Lord	Electrical Construction	375	37	6	6	
219	O.B. Cannon	Special Coatings	13	2	0	-	
220	Johnson Controls	Instrumentation	27	3	0	-	
221*	Pacific Testing Lab	Testing	6	1	0	-	
221A	Pacific Testing Lab	Testing	A	A	-	-	
225*	McMillan Brothers	Makeup Water Pump House	24	2	1	1	
233*	BF Shaw	Spray Pond Alterations	4	1	0	-	
234	O.B. Cannon	Wetwell Coating	4	1	0	-	
235	GE IS&E	I&C Board Modification	B	B	-	-	
			3096	347	40	40	

*Inactive Site Contract

A: No QC-1 NCR's closed prior to 7/80

DEFICIENCY DOCUMENT REVIEW SUMMARY
QC - I CONTRACTS

QUALITY CLASS-I SEISMIC-I SITE WORK PERFORMED		CONTRACTOR DOCUMENTATION SUBJECT TO QVP REVIEW					
Contract	Contractor	INTERNAL DOCUMENTS					
		DD	Review	Status+	DCD	Review	Status+
205*	Stewart-Erickson	NCR	Yes	Complete	None	-	Complete
206*	Bovee-Crall	IR	Yes	Complete	NCR	Yes	Complete
206A*	Peter Kiewit Sons'	IR	Yes	6	None	-	-
207*	Pittsburgh-Des Moines		Yes	Complete		Yes	Complete
209*	Lampson Inc		D	Complete		D	Complete
210*	Peter Kiewit Sons'	IR	Yes	Complete	None	-	Complete
210A	Peter Kiewit Sons'	N/A	B	Complete	N/A	B	Complete
6426*	Wright Schuchart Harbor	IR	Yes	Complete	IR	Yes	Complete
213*	Pittsburgh-Des Moines	CAR	Yes	Complete	ECAR	Yes	Complete
213A*	Pittsburgh-Des Moines	CAR	Yes	Complete	ECAR	Yes	Complete
215	#SH/Boecon/GERI	IR	Yes	Complete	FCR	C	Complete
216	Waldinger	DR	Yes	Complete	DR	Yes	Complete
217	Sentry	IR	D	Complete	IR	D	Complete
218	Fischbach/Lord	IR	Yes	Complete	IR	Yes	Complete
219	O.B. Cannon	IR	Yes	Complete	None	-	Complete
220	Johnson Controls	ISR	Yes	Complete	JFRN	Yes	Complete
221*	Pacific Testing Labs		Yes	Complete		Yes	Complete
221A	Pacific Testing Labs		D	Complete		D	Complete
225*	McMillan Brothers	ICL	Yes	6	CAR	Yes	5
226	Sime Construction Company		Yes	6		Yes	3
233*	BF Shaw		Yes	5	None	-	Complete
234	O.B. Cannon	IR	Yes	Complete	None	-	Complete
235	GE IS&E	QR	Yes	6	None	-	Complete

NOTES:

- A - Review not commenced
- B - No QC-I Work performed prior to 7/80
- C - Special Review
- D - No QC-I or QC-II/SC-I Documentation closed prior to 7/80
- DD - Deficiency Document
- DCD - Design Change Document
- * - Denotes inactive Contract
- + - Numbers indicate action in Flow Chart, Page 4

LEGEND:

- IR - Inspection Report
- CAR - Corrective Action Report
- DR - Deficiency Report
- ISR - Inspection Surveillance Report
- QR - Quality Report
- ECAR - Engineering Corrective Action Report
- FCR - Field Change Request
- JFRN - Johnson Controls Field Request Notice

FIFTEENTH PROGRESS REPORT
FLOW CHART FOR REVIEW OF
CONTRACTOR INTERNAL DOCUMENTATION

