

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-528/80-16
50-529/80-16
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Docket No. 50-528/529/530 License No. CPPR-142,-142,-143 Safeguards Group _____

Licensee: Arizona Public Service Company
P. O. Box 21666
Phoenix, Arizona 85036

Facility Name: Palo Verde Nuclear Generating Station - Units 1, 2 and 3

Inspection at: Palo Verde Construction Site, Wintersburg, Arizona

Inspection conducted: October 7-10, 1980

Inspectors: J. H. Eckhardt, Reactor Inspector 12/23/80
Date Signed
G. Hernandez, Reactor Inspector 12/23/80
Date Signed

Approved By: R. T. Dodds 12/23/80
Date Signed
R. T. Dodds, Chief, Engineering Support Section
Reactor Construction and Engineering Support Branch

Summary:

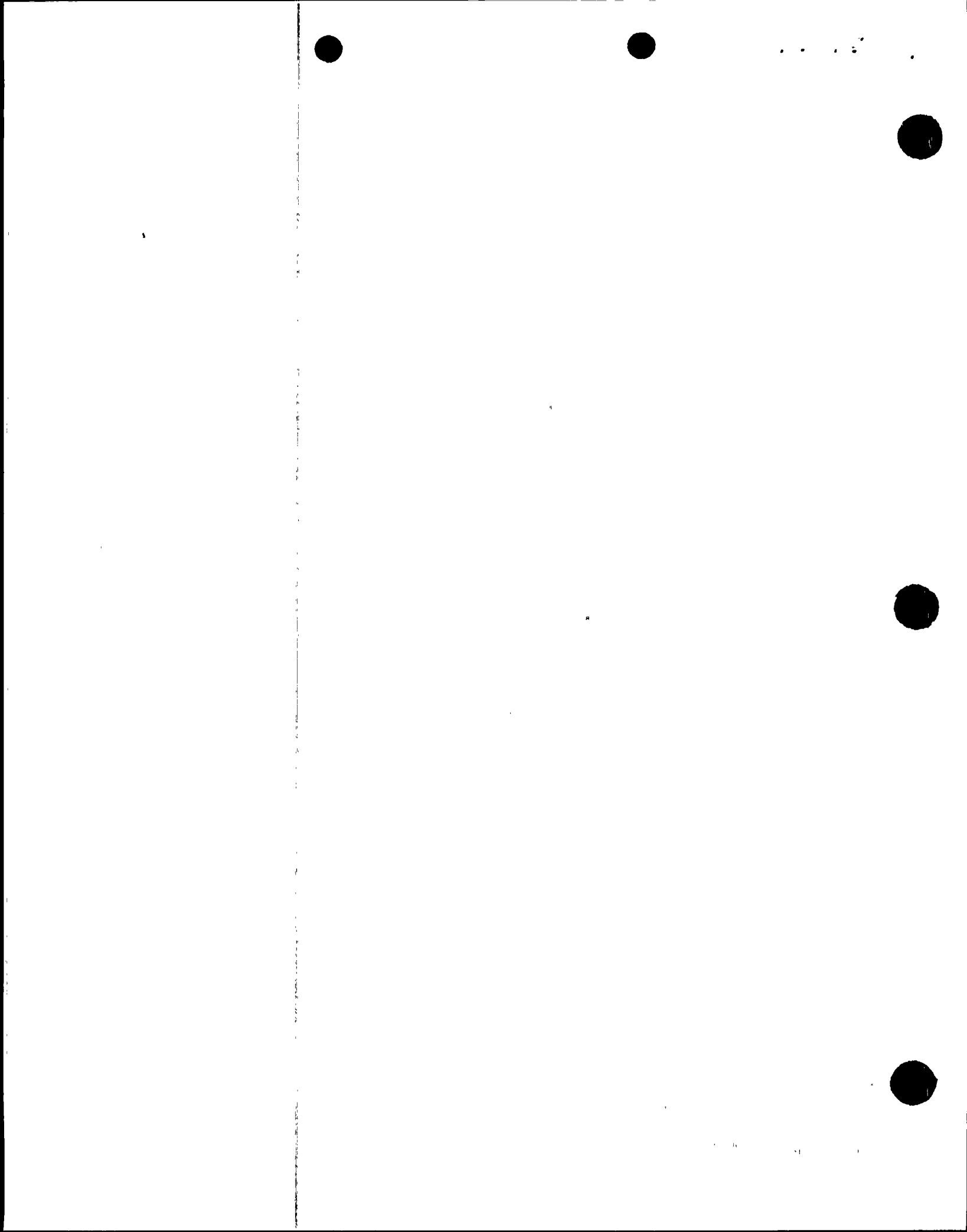
Inspection on October 7-10, 1980 (Report Nos. 50-528/80-16, 50-529/80-16, and 50-530/80-16).

Areas Inspected: Routine, unannounced inspection by regional based inspectors of activities relating to electrical cable installation, pipe welding, structural concrete, and stud welding. The inspection involved 52 inspection-hours onsite by two NRC inspectors.

Results: One item of noncompliance was identified in the area of concrete preplacement inspection in Unit 3 auxiliary building.

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RV Form 219 (2)



DETAILS

1. Persons Contacted

a. Arizona Public Service Company (APS)

- *E. E. Van Brunt, Jr., Vice President, Nuclear Projects
- *J. A. Roedel, Manager, Quality Assurance
- *W. E. Ide, Site QA Supervisor
- *D. B. Fasnacht, Site Construction Manager
 - G. Pankonin, QA Engineer
 - R. D. Forrester, QA Engineer
 - L. Souza, QA Engineer
 - D. E. Fowler, QA Engineer
- *R. J. Kimmel, FE Supervisor

b. Bechtel Power Corporation (Bechtel)

- *W. J. Stubblefield, Field Construction Manager
- *R. M. Grant, Project QC Supervisor
- *J. E. Pfunder, Project QA Engineer
 - D. R. Hawkinson, Project QA Supervisor
 - C. J. Dun, Assistant Project Field Engineer
- *W. A. Miller, Assistant Project Field Engineer
- *C. F. Gaither, Assistant Project Field Engineer

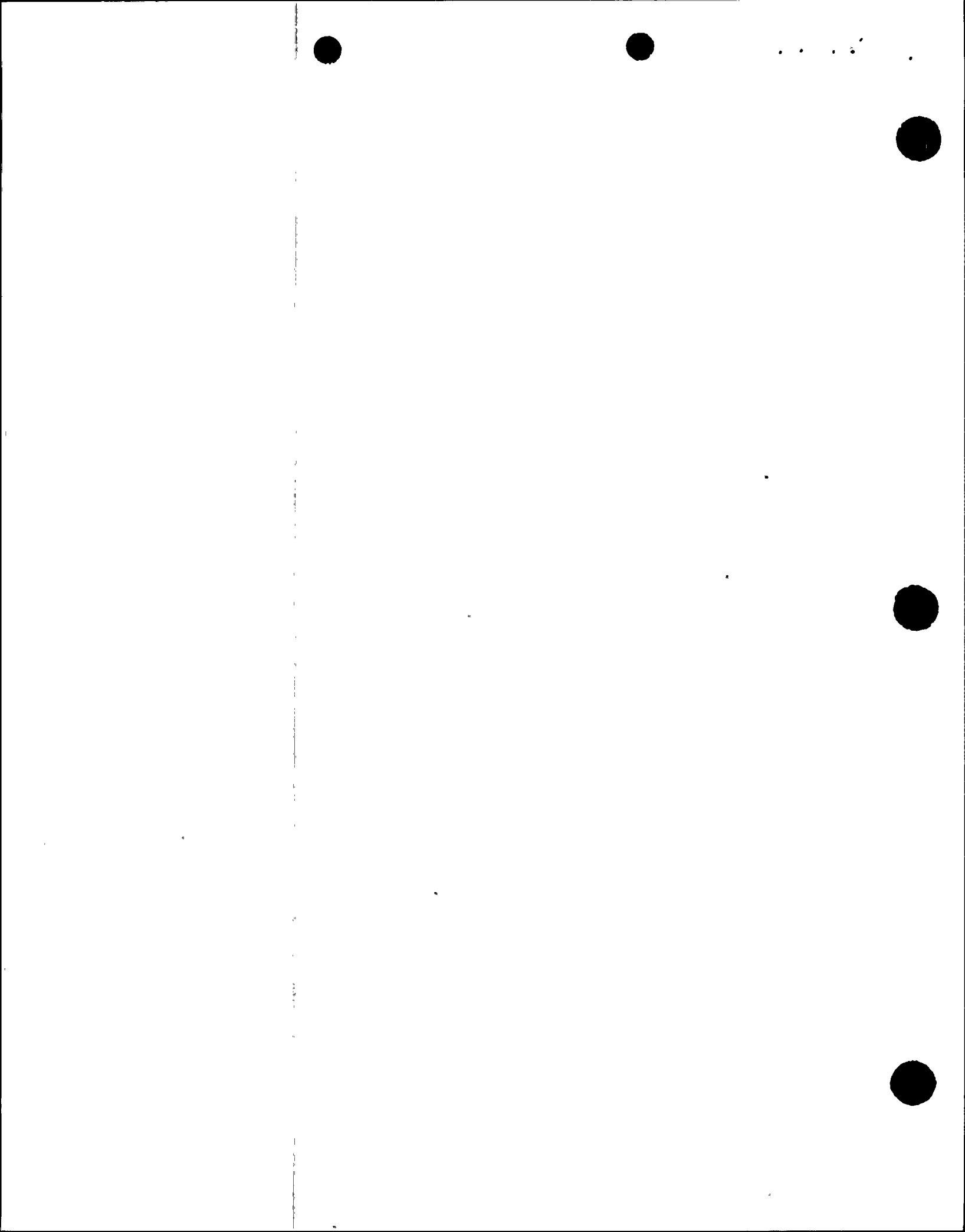
*Denotes those attending exit interview.

2. Site Tour

On October 7, 1980 the inspectors conducted a general facility tour to observe completed and in-progress work for deviations or noncompliance with PSAR commitments and regulatory requirements.

During the tour of the Unit 3 Auxiliary Building the inspectors noted the following:

WPP/QCI No. 52.0, "Concrete Preplacement", Appendix I states in paragraph C, "Verification instructions/responsibilities" Item No. 14, clean-up, that the Civil QCE, "Verify that the area for concrete placement meets the cleanliness requirements of 13-CM-365, Sections 6.1.3, 6.4.2, 6.6.2 and 10.3. Specification No. 13-CM-365, "Installation specification for the forming, placing, finishing and curing of concrete" Section 10.3 states in part that, "Debris, mud, snow, and ice shall be removed from spaces to receive concrete and the reinforcement and other metal to be embedded shall be cleaned of all coating which might impair the bond."



Contrary to the above three pockets of defective concrete extending beyond the first layer of rebar were found to contain debris including cigarette butts, tape, wood, glass, paper and RODOFOAM material. These rock pockets are located at two construction joints at the 68' elevation, on the west face of a shaft wall on AF line between A7 and A8 lines.

Examination of the Construction Inspection Planning (CIP) for concrete preplacement for placements nos. 3A035, 3A036 and 3A038 (a floor slab) and for placement nos. 3A044 and 3A119 (the shaft wall) indicated that the QCE had sign-off Item No. 14, "Final Clean-up" (of the CIP's), for all the placements as satisfactory.

Upon notification of this condition the licensee immediately issued a nonconformance report to effect corrective action.

The acceptance of the two areas to receive concrete is considered an apparent item of noncompliance. (50-530/80-16/01)

3. Electrical Cable Installation

Installation of the following Unit 1 Class 1E electrical cables was observed to ascertain compliance with Bechtel procedure WPP/QCI-254, "Electrical Cable Installation:"

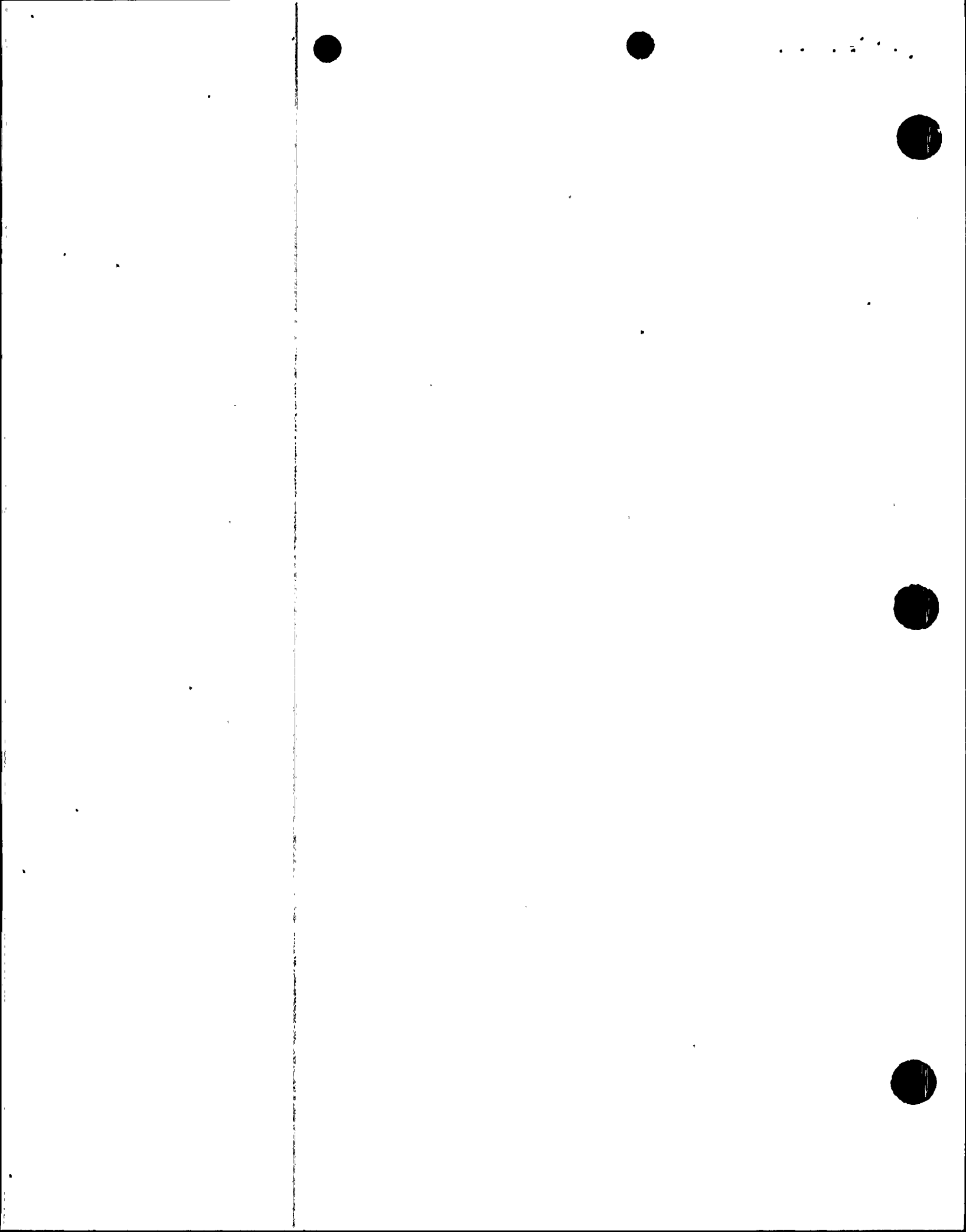
<u>Cable No.</u>	<u>Cable Type</u>	<u>From</u>	<u>To</u>
1ERI51AC1XC	6/PR 16AWG	Aux. bldg. outside containment	Control bldg. upper spreading rm.
1EHD05	2/C 16AWG	Control building	Diesel gen. control rm.
1EHD05BC2KA	3/C 6AWG	Control building	Diesel gen. control equip.
1EHD05BC2RF	3/C 6AWG	Control building	Diesel gen. control equip.

Particular attributes examined included condition of cable trays, identification of trays and cable, condition of cable, communication between members of pulling crew, proper sealing of cable ends, protection of cable, and proper tie down of cable. Also, the pull cards for these cables were reviewed.

No items of noncompliance or deviations were identified.

4. Safety-Related Pipe Welding

The following welding activities were examined to ascertain compliance with the applicable ASME B&PV Code and Bechtel pipe welding specifications:



<u>System</u>	<u>Weld Number</u>	<u>Pipe dia., in</u>	<u>Welding Activity</u>
<u>Unit 1 Aux. Bldg.</u>			
SI134FCBA	W00H	1	Tacked
SIA090FCBA	W003	14	Prepped for UT
SIA078FCBA	W005	10	Complete
SIB031GCBC	W00B	½ (socket)	In process
RDB304XCDA	W003	4	Tacking
<u>Fabrication Shop</u>			
AF032DBC	W00B	1	In process
AF032DBC	W00L (socket)	1	Complete
CH099CCBA	W00K	1	In process
SIE118CCBA	W00C	2	In process

In addition, the weld filler material issue room in the fabrication shop was examined to ascertain compliance with the Bechtel weld filler material control specification.

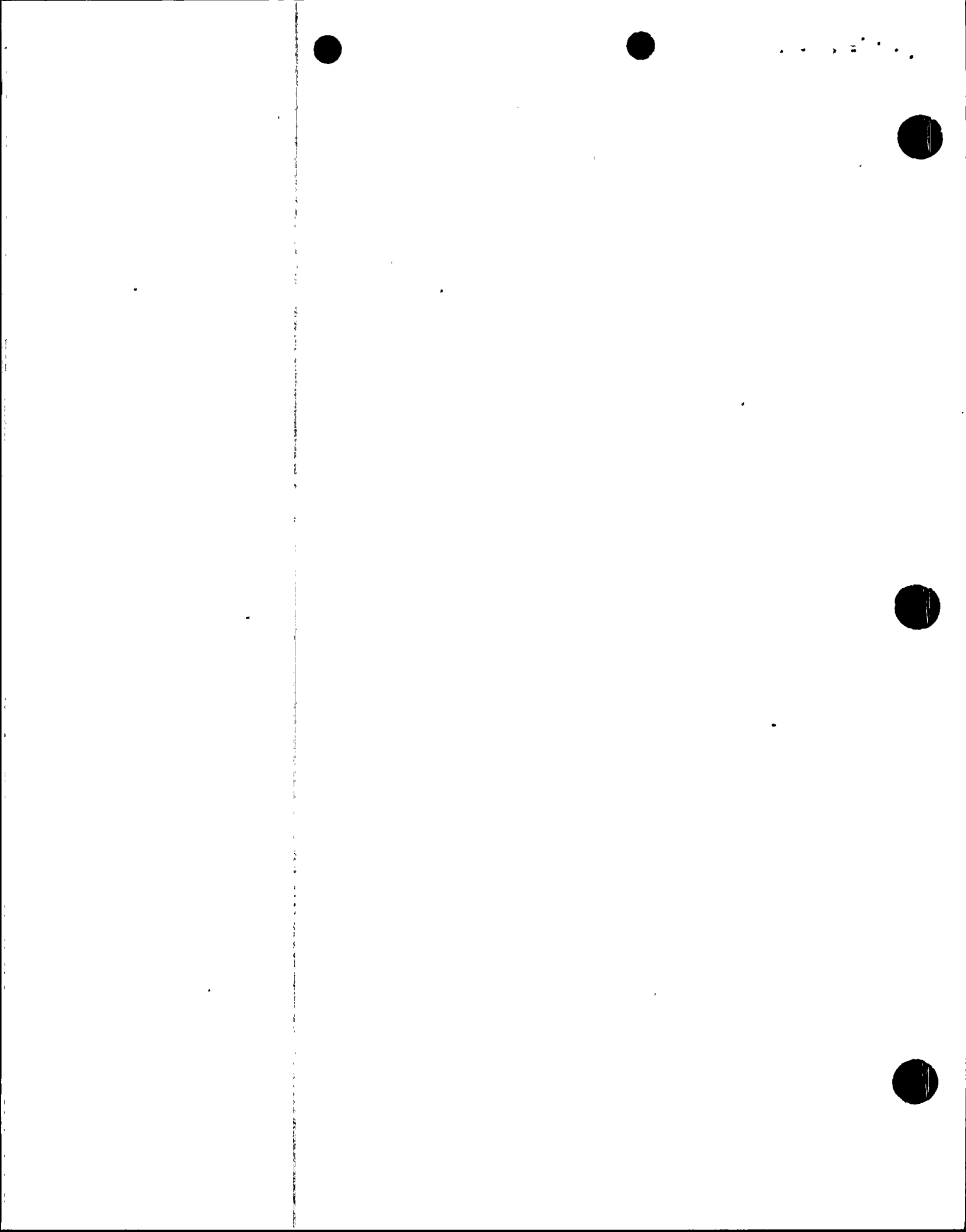
No items of noncompliance or deviations were identified.

5. Structural Concrete

a. Observation of Work and Work Activities

Concrete testing and the site testing laboratory were examined for compliance with the pertinent ACI/ASTM, contract specifications and PSAR commitments. The examination included observations of field testing activities, laboratory housekeeping, equipment conditions, operation, calibration status, concrete cylinder facilities, and cylinder marking and storage.

During the examination of the concrete testing laboratory manned by Champion, the inspector observed that the coarse and fine aggregate sieves appeared to have missed the annual check required by Champion's procedures manual. Discussions with cognizant engineers determined that the sieves had actually been checked, but through an administrative error the wrong date had been typed on the recall sticker. A review of the Champion report verified that the sieves had been checked as required. The licensee took immediate action and corrected the stickers. Based on the review of the report and visual examination of the sieves for obvious improper handling and damage, the inspector has no further questions on this matter.



b. Review of Quality Records

Records pertaining to concrete production and placement activities were examined for compliance with licensee procedures, specifications, and PSAR requirements. The record included water, ice, aggregate tests, placement records, NCR's, concrete cylinder compression tests, certificate of conformance, and the qualification records of 10 QC inspectors.

No items of noncompliance or deviations were identified.

c. QA Audits

The inspector selected four QA audits performed by Bechtel on ETL and Champion activities for the current year. The audits examined were Audit Nos. 80-ETL-H-7, 80-ETL-S-16, 80-CHA-S-8, and 80-CHA-S-29. The audits appeared to be planned and carried out with the frequency and requirements of the licensee's QA program.

No items of noncompliance or deviations were identified.

6. Stud Welding

Completed Nelson studs at the 83' elevation of the Unit 3 Auxiliary Building were examined for compliance with the licensee's procedures, specifications, and AWS D1.1 Code requirements. The inspectors visually examined the studs to verify that the studs were properly bent, marked, and they had a full 360 degree weld.

No items of noncompliance or deviations were identified.

7. Exit Interview

On October 10, 1980, the inspectors met with licensee representatives identified in Paragraph 1 and summarized the scope and findings of the inspection as noted in this report.

