


TO: BOARD OF DIRECTORS
FROM: BRUCE BUEL 
DATE: August 17, 2007

**AGENDA ITEM
F
AUGUST 22, 2007**

MANAGER'S REPORT

ITEM

Standing report to your Honorable Board --*Period covered by this report August 1, 2007 through August 15, 2007*

DISTRICT BUSINESS

Administrative

The Finance, Audit and Personnel Committee discussed extending the Assistant to the General Manager's hours and amending the salary range for the Superintendent Position and the Field Foreman Position at its August 13, 2007 Committee Meeting (See Minutes posted Item G).

Staff has been meeting with Boyle Engineering to finalize the draft revisions to the Standard Specifications for presentation to the Board at the Board's September 12, 2007 Meeting.

Staff has been working with the Parks Committee and the Wallace Group on the Parks Funding Assessment for presentation to the Board. Staff expects to meet with Dr. Gary Clay of Cal Poly on Sept 6, 2007 to discuss a future Community Workshop to display the results of the two 2006-2007 classes on Miller Park and Olde Towne design. Staff is also attempting to set the first meeting of the Parks Citizens Advisory Sub-Committee.

Attached is an evaluation of the corrosion damage to Black Lake's Hydro-Pneumatic Tank. Based on this evaluation, staff believes that it would not be cost effective to repair this vessel.

Maria Vista Estates has set a total of eight water meters.

Safety Program

No injury reports during the period.

Project Activity

Staff will provide a verbal projects update to the Board at the Board Meeting.

Conservation Program Activities

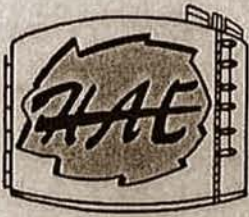
Staff has been working with the Conservation Committee on the Emergency Shortage Ordinance. The Ad Hoc Water Conservation Committee met on 6/11/07, 6/19/07, 7/24/07 and 7/31/07. Another meeting is scheduled to meet again on Monday 8/27/07 to discuss the ordinance and the draft water conservation program. Staff has scheduled a presentation on drought triggers at the 9/12/07 Board Meeting along with a conceptual review of the Water Conservation Program. Staff has scheduled a conceptual review of the Emergency Water Supply Ordinance for September 26th.

RECOMMENDATION

Staff seeks direction and input from your Honorable Board.

ATTACHMENTS

- Corrosion Engineering Evaluation of Blacklake Hydro-pneumatic Tank
- NOTE: Staff will present the July SWP Fiscal Report to the Board in August



HARPER & ASSOCIATES ENGINEERING, INC.

CONSULTING ENGINEERS

1240 E. Ontario Ave., Ste. 102-312 Corona, CA 92881-8671

Phone (951) 372-9196 Fax (951) 372-9198

HAETanks@aol.com, www.harpereng.com

ENGINEER'S REPORT

CORROSION ENGINEERING EVALUATION

OF A

WELDED STEEL HYDRO-PNEUMATIC TANK
(BLACK LAKE)

NIPOMO, CALIFORNIA

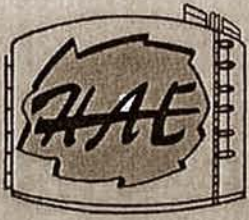
JULY 2007

PREPARED FOR:

Mr. Bruce Buel
Nipomo Community Services District
P.O. Box 326
Nipomo, CA 93444

CONTENTS

1. Corrosion Report
2. Photo Survey
3. Steel Thickness



HARPER & ASSOCIATES ENGINEERING, INC.

CONSULTING ENGINEERS

1240 E. Ontario Ave., Ste. 102-312 Corona, CA 92881-8671
Phone (951) 372-9196 Fax (951) 372-9198

CORROSION REPORT

PROJECT: Corrosion Engineering Evaluation of a Welded Steel Hydro-Pneumatic Tank

STRUCTURE: The Welded Steel Hydro-Pneumatic Tank
(Black Lake)

OWNER: Nipomo Community Services District

LOCATION: Nipomo, California

INVESTIGATED BY: Andre Harper, Project Engineer

DATE: July 2007

I. GENERAL INFORMATION

A. Construction and Maintenance Details

Structure is a welded steel hydro-pneumatic water tank located in Nipomo, California and is designated as the Hydro-Pneumatic Tank. The tank was constructed in 1984 by Alameda Tank Co. The tank is approximately 8 feet in diameter and 40 ft long. One manway is present on the end of the vessel with dimensions of 15 ¼" x 11 ¾".

B. Site Conditions

The tank is on a paved site with a 400,000 gallon welded steel water storage tank and both are enclosed by a chain link fence. There is adequate space for large equipment around the tank, assuming use of normal portable air compressor and related equipment.

C. Existing Coating and Paint Systems

1. Based on the field investigation the coating and paint systems appear to be the following:
 - a. Interior Surfaces – An epoxy coating system is present on all interior surfaces.
 - b. Exterior Surfaces - An alkyd or epoxy/urethane paint system is present on all exterior surfaces.

D. Cathodic Protection System

The tank has no cathodic protection system installed for the interior surfaces.

E. Title 22 Heavy Metal Analyses

Samples of interior coatings and exterior paints were removed for future analyses for presence of heavy metals, specifically lead, chromium compounds and zinc. The Water District did not include this in the scope of work, but the samples have been retained for testing at a future date if requested.

F. Contract Information

Harper & Associates Engineering, Inc. was retained by the Water District to accomplish field investigation of the tank to observe interior and exterior surfaces and conditions with photographs taken to record conditions. This report has been prepared with remedial repair/recoating/repainting recommendations and cost estimates.

This corrosion report is prepared solely on the basis of noted field investigation. Conclusions and recommendations are strictly those determined by Consultant to be consistent with the best and most experienced practice within the corrosion engineering profession.

II. INVESTIGATION:

A. Investigation was accomplished as follows:

1. Exterior Surfaces

- a. Investigation of exterior surfaces and appurtenances was accomplished by traversing the structure.
- b. Various chipping tools were employed to examine typical areas of defective coating and corrosion within reach.
- c. Photographs were taken of typical and specific areas to illustrate condition of surfaces.

2. Interior Surfaces

- a. Interior surfaces were inspected by entering the pressure vessel manway and traversing all interior surfaces.
- b. Light was supplied via high intensity portable light and natural light from the manway.
- c. Various chipping tools were employed to examine typical areas of defective coating and corrosion within reach.
- d. Photographs were taken of typical and specific areas to illustrate

condition of surfaces.

III. OBSERVATIONS

A. Based upon the above reported investigation, the following observations were noted:

1. Exterior Surfaces

- 1) Overall the paint system is in good condition with minor oxidation and fading of the paint system. (Photos 1 through 9)
- 2) Minor corrosion is present on the irregular surfaces of the conduit and piping. (Photo 2 through 4)
- 3) Minor corrosion and staining is present at the edges of the identification plate. (Photo 6)

2. Interior Surfaces

- 1) Overall the coating system on the interior surfaces is in poor condition with random areas of general corrosion, delamination and isolated areas of moderate to severe rust scale present. (Photos 10 through I-32)
- 2) Moderate general corrosion is present on the roof and upper portions of the shell. (Photos 10 through 16)
- 3) Random areas of blistered coating with corrosion are present with isolated areas of minor etching and pitting of the substrate present. (Photos 17 and 18)
- 4) Random areas of delamination are present. (Photos 19 through 21)
- 5) An isolated spot of severe corrosion was noted with minor pitting of approximately 1/32". (Photos 22 and 23)
- 6) Random rust tubercles are present on the lower surfaces of the pressure vessel. (Photos 24 through 27 and 29 through 32)
- 7) Moderate corrosion is present on the welds in random locations. (Photo 28)
- 8) Random rust tubercles are present at the inner circumference of the outlet and on adjacent surfaces. (Photo 32)

IV. CONCLUSIONS:

A. Based on the above noted observations, the following conclusions are drawn:

1. Exterior Surfaces

a. Roof and Appurtenances

- 1) The overall condition of the paint system must be rated as good.
- 2) Moderate oxidation (chalking) and fading of finish is typical for an Alkyd paint system of this age.
- 3) Minor corrosion and staining at the edges of the identification plate (ID) is typically due to not properly preparing and painting the mounting plate surface before attaching the ID plate.

2. Interior Surfaces

a. Underside of Roof and Structural Members

- 1) The overall condition of the interior coating system must be rated as poor based on the deterioration of the coating system at the time of this evaluation.
- 2) Moderate general corrosion on the roof and upper portions of the shell appears to be due to the age of the coating system as existing epoxy coating system typically has a lifespan of approximately 20-25 years depending on the service conditions.
- 3) Random locations of delamination appear to be due to patchwork accomplished after the original coating system was applied.
- 4) Isolated areas of severe corrosion, etching and pitting of the substrate are due to the overall deterioration of the coating system and the lack of maintenance where severe deterioration has occurred.
- 5) Moderate to severe corrosion at the welds is due to a combination of the age of the coating system and possibly not brush applying the coating to the welds to ensure proper mil thickness on these irregular surfaces.

V. LABORATORY TESTING OF COATING AND PAINT

1. This item was not requested as part of the scope of work. If the Water District elects to have the tanks rehabilitated these samples should be sent to a laboratory to determine if hazardous metals are present in the existing painting and coating systems.

VI. RECOMMENDATIONS

- A. Based on the above noted observations and conclusions, the following recommendations

are offered.

1. Exterior Painted Surfaces

- a. The paint system on the exterior surfaces is in overall good condition. If the District would like to remove the minor oxidation, pressure washing the surfaces can be accomplished to restore the gloss.

2. Interior Surfaces

- a. The interior surfaces are in overall poor condition with random general and isolated corrosion present and isolated areas of etching and pitting of the substrate present. Due to the overall poor condition of the coating system, HAE recommends that the interior coating system be totally removed and replaced. All interior defective surfaces should be abrasively blast cleaned to Near White Metal (SSPC-SP10) and a three coat epoxy coating system be applied to a minimum thickness of 15 mils on all epoxy coated surfaces.

- 1) After abrasive blasting the interior surfaces the metal loss at areas of severe corrosion should be examined to determine if any minor repairs should be accomplished.

VII. COST ESTIMATES

- A. Based on current and previous projects of similar scope, preliminary cost estimates for work as noted in RECOMMENDATIONS, were calculated by using data from those projects.

1. Exterior Surfaces

- a. Pressure washing of the exterior surfaces can be accomplished by the District or for a minimal cost by the Contractor if included with the interior recoating project.
- b. Abrasive blast cleaning of complete exterior surfaces and application of an epoxy/urethane paint system to complete exterior of tank would be approximately \$5,000 to \$7,000, based on surfaces being classified as a non-hazardous materials/waste project. **This estimate is not a recommendation, but is furnished for comparative cost purposes.**

2. Interior Surfaces

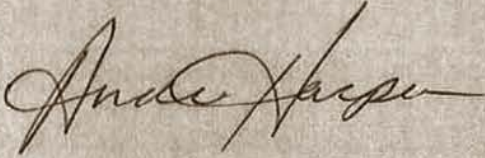
- a. Abrasive blast cleaning of all interior surfaces to Near White metal (SSPC-SP10) and application of a three-coat epoxy coating system to a total dry film thickness of 15.0 mils on all interior surfaces will be in the cost range of approximately \$21,000 to \$24,000, based on surfaces being classified as a non-hazardous materials/waste project.

3. No cost is projected for quality control inspection of any outside contract work.

An estimate can be prepared when final scope of work is determined.

4. HAE recommends that a specification be written and utilized for bidding purposes and the recoating project, to ensure that the coatings are applied properly to give the District the maximum life of the coating system.

Respectfully submitted;



HARPER & ASSOCIATES ENGINEERING, INC.

Andre Harper
Project Engineer



HARPER & ASSOCIATES ENGINEERING, INC.

CONSULTING ENGINEERS

1240 E. Ontario Ave., Ste. 102-312 Corona, CA 92881-8671
Phone (951) 372-9196 Fax (951) 372-9198
www.harpereng.com HAETanks@aol.com

PHOTOGRAPIC SURVEY

PROJECT: Corrosion Engineering Evaluation of a Welded Steel Hydro-Pneumatic Tank

STRUCTURE: The Welded Steel Hydro-Pneumatic Tank
(Black Lake)

OWNER: Nipomo Community Service District

LOCATION: Nipomo, California

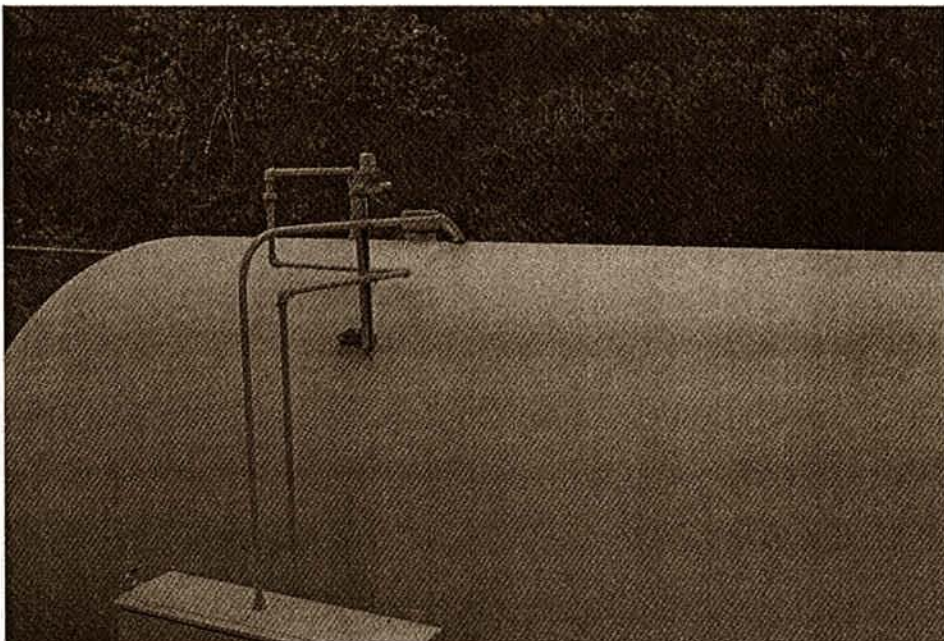
PHOTOGRAPHED BY: Andre Harper, Project Engineer

DATE: July 2007

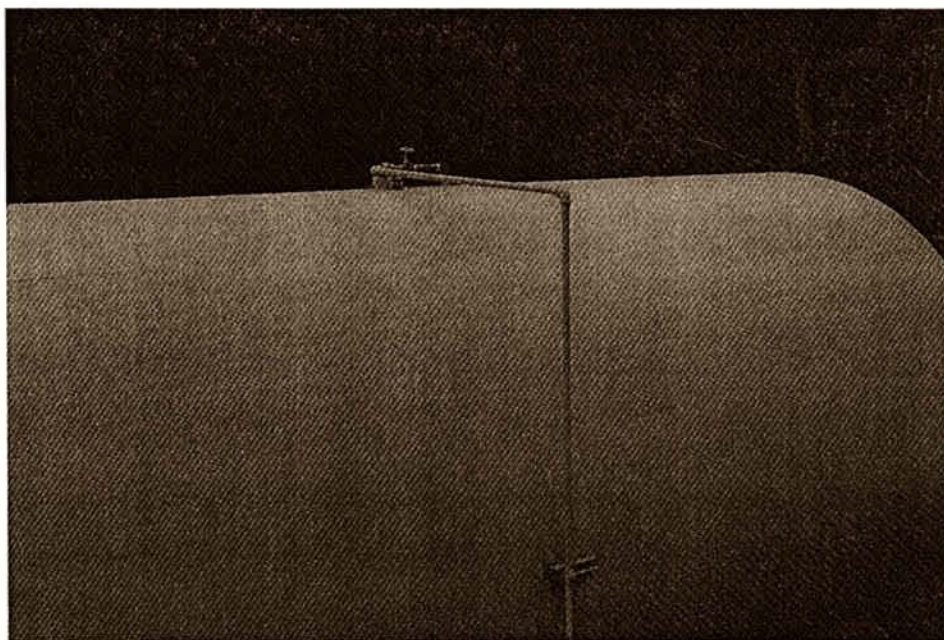
- 1 General view of the exterior of the Black Lake Hydro-Pneumatic Tank, illustrating oxidation and fading of the paint system.



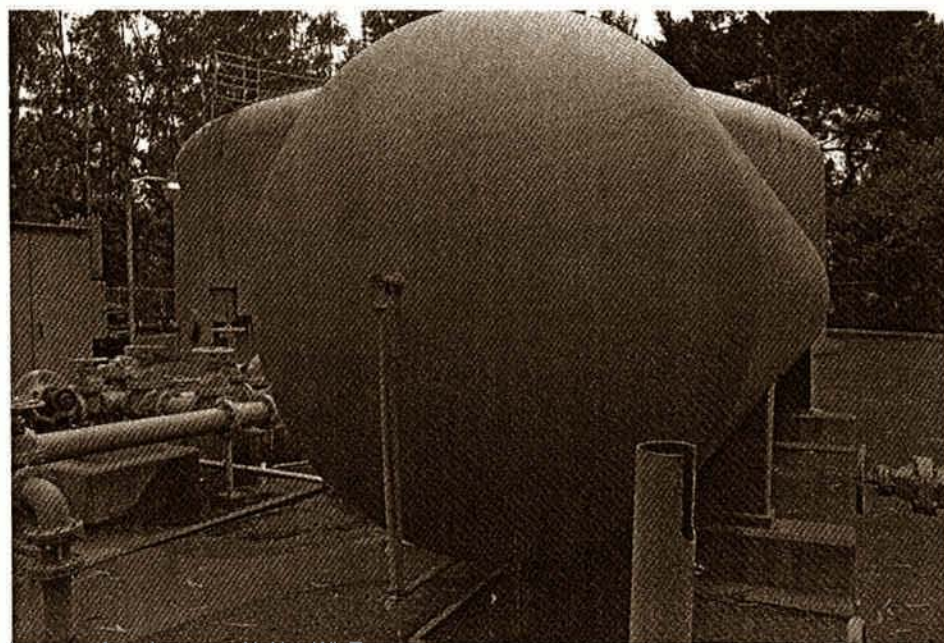
- 2 View of the tank and piping, illustrating random minor corrosion present at the irregular surfaces of the piping.



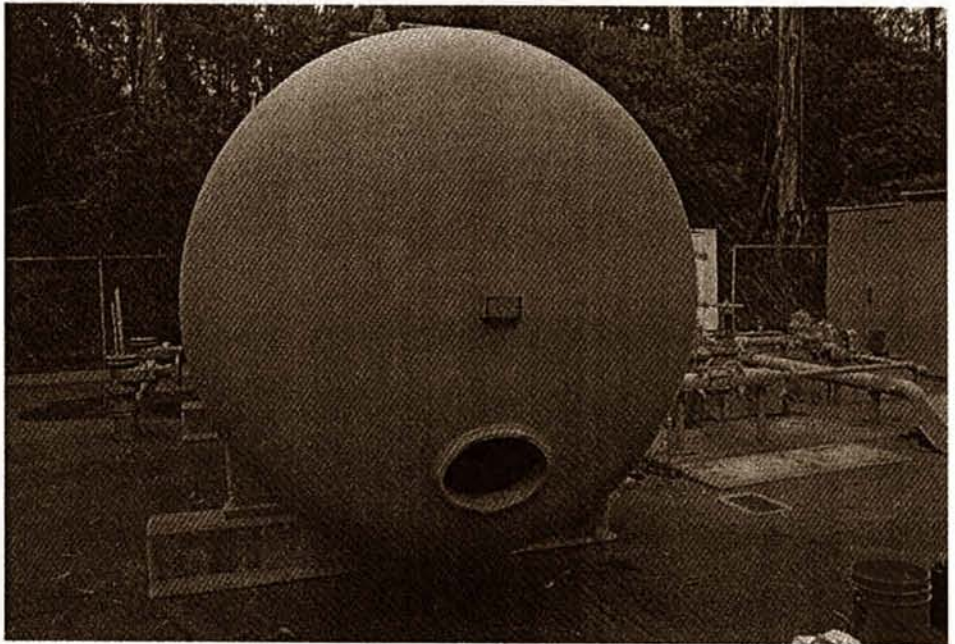
- 3 Same as Photo 2 except at a different location.



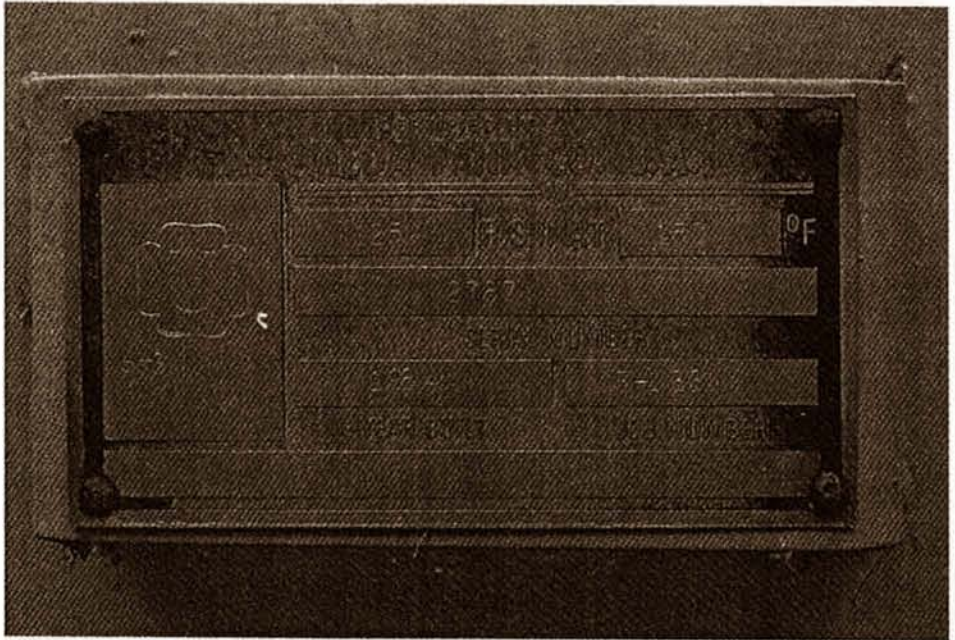
- 4 View of the end of the tank, illustrating minor oxidation and fading of the paint system.



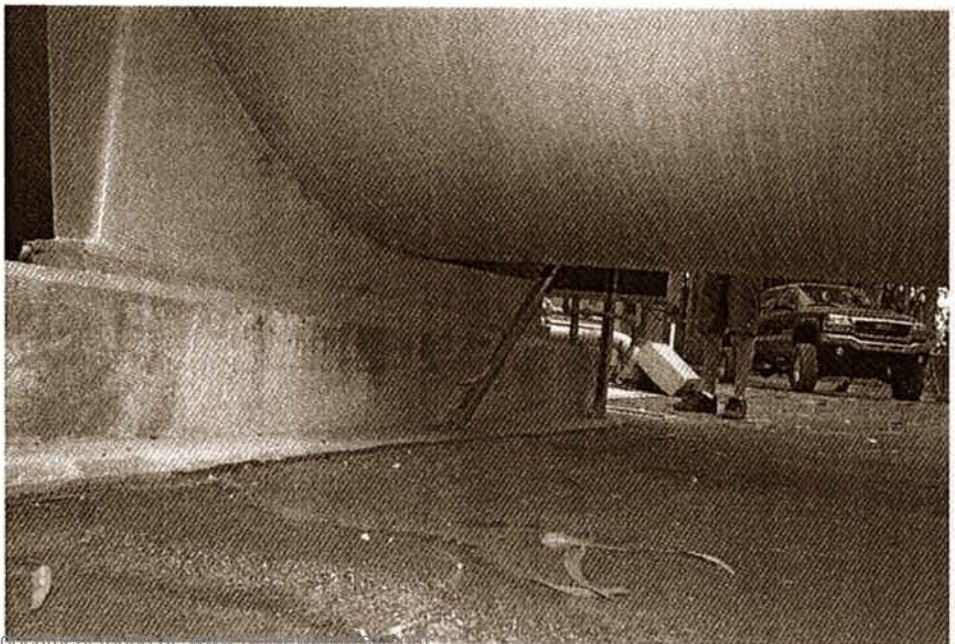
- 5 View of the end of the tank at the manhole, illustrating random minor corrosion at the circumference of the manhole and oxidation and fading of the paint system.



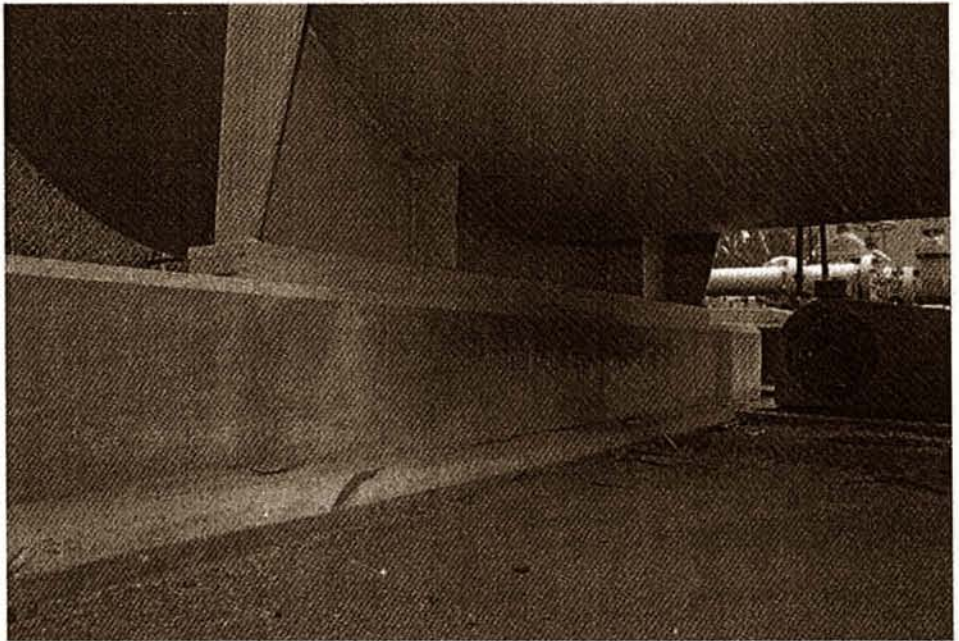
- 6 View of the identification (ID) plate, illustrating minor corrosion and staining at the rivets.



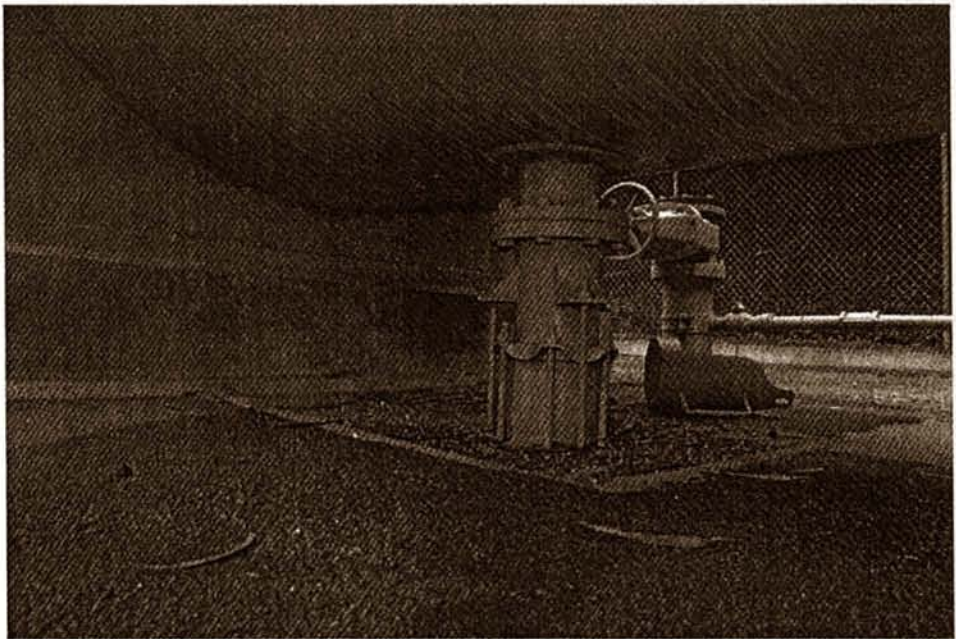
- 7 View of the underside of the tank, illustrating streaking of the paint and otherwise good condition of the paint system.



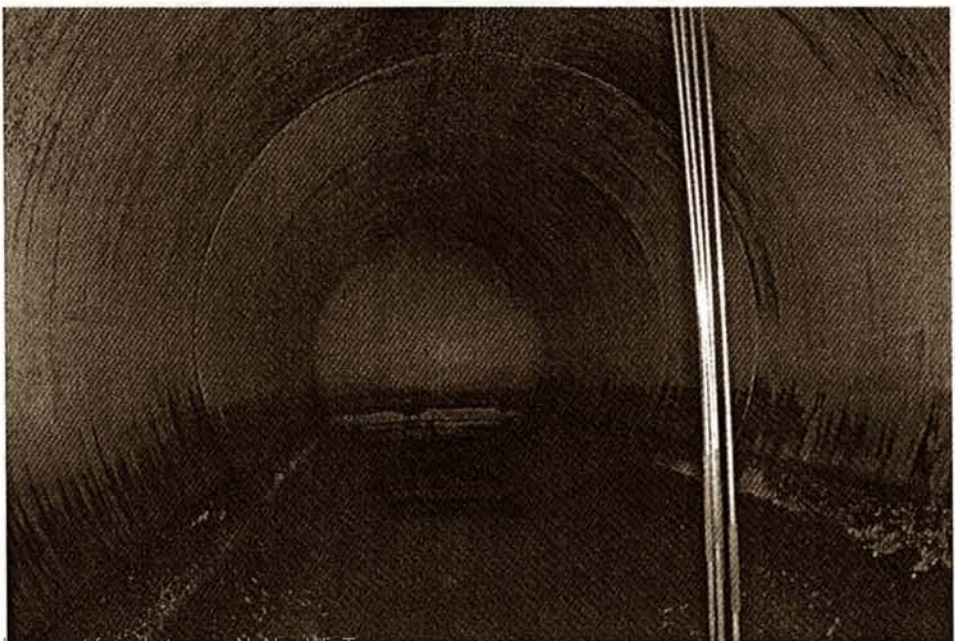
- 8 Same as Photo 7, except at a different location.



- 9 Same as Photos 7 and 8, except in a different location. Note good condition of the piping and flanges.



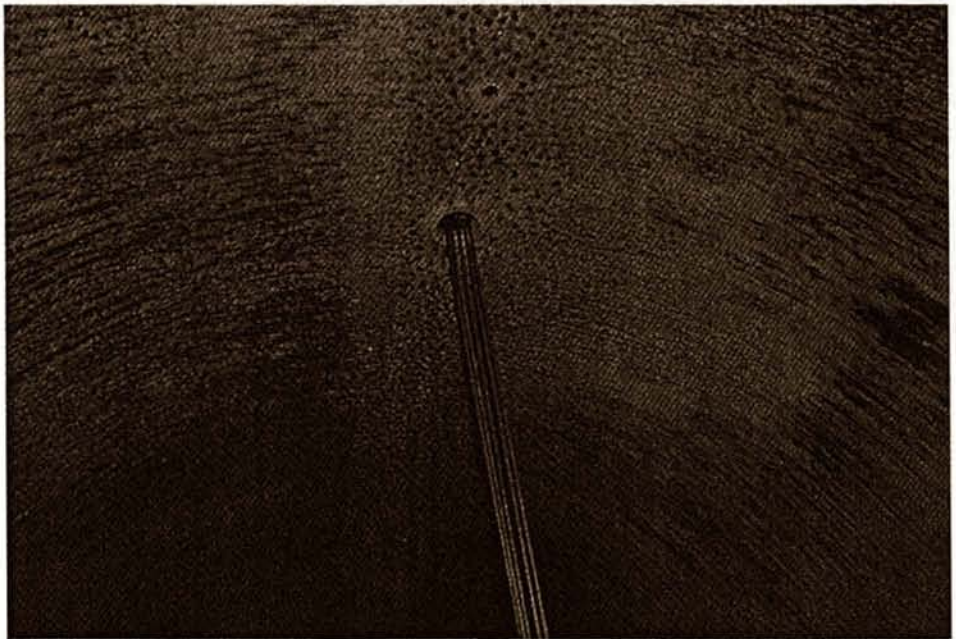
- 10 View of the interior of the tank, illustrating random general corrosion present on the interior surfaces and dark brown staining on the lower portion of the tank.



- 11 Same as Photo 10, except from the opposite end of the tank.



- 12 Close-up view of the upper portion of the tank, illustrating cracked and blistering coating with corrosion present.



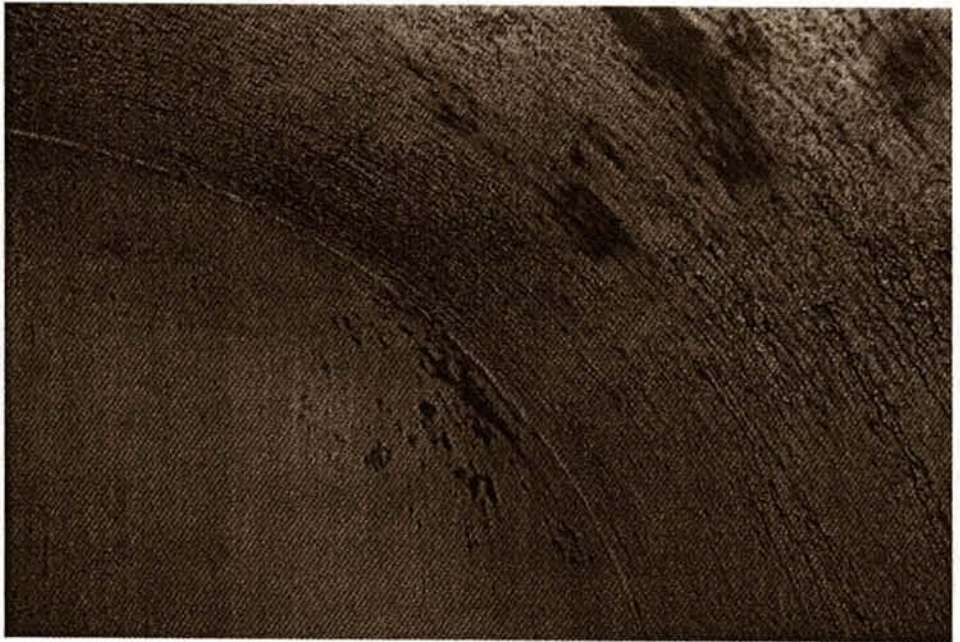
- 13 Same as Photo 12, except at a different location. Note good condition of the two penetrations.



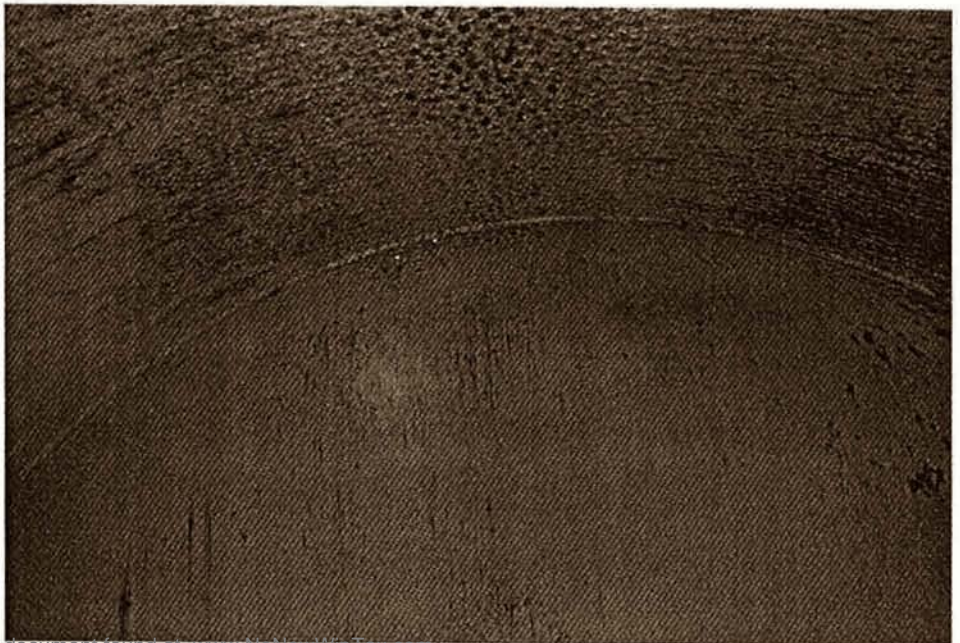
- 14 Close-up view of the upper portion of the tank, illustrating cracked and blistering coating with corrosion present.



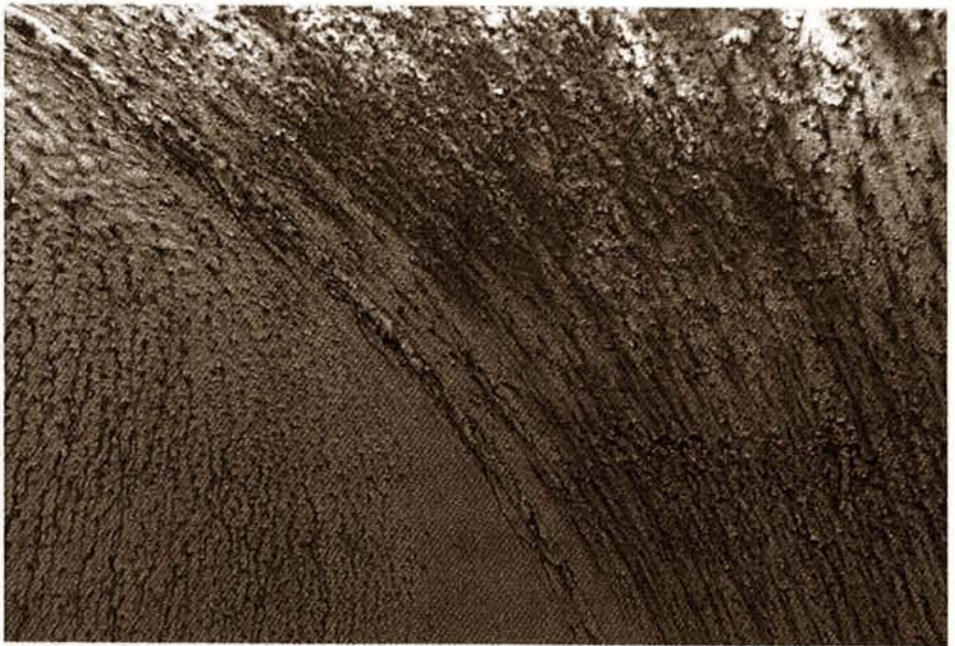
- 15 View of the side to end transition, illustrating general corrosion and staining on all surfaces.



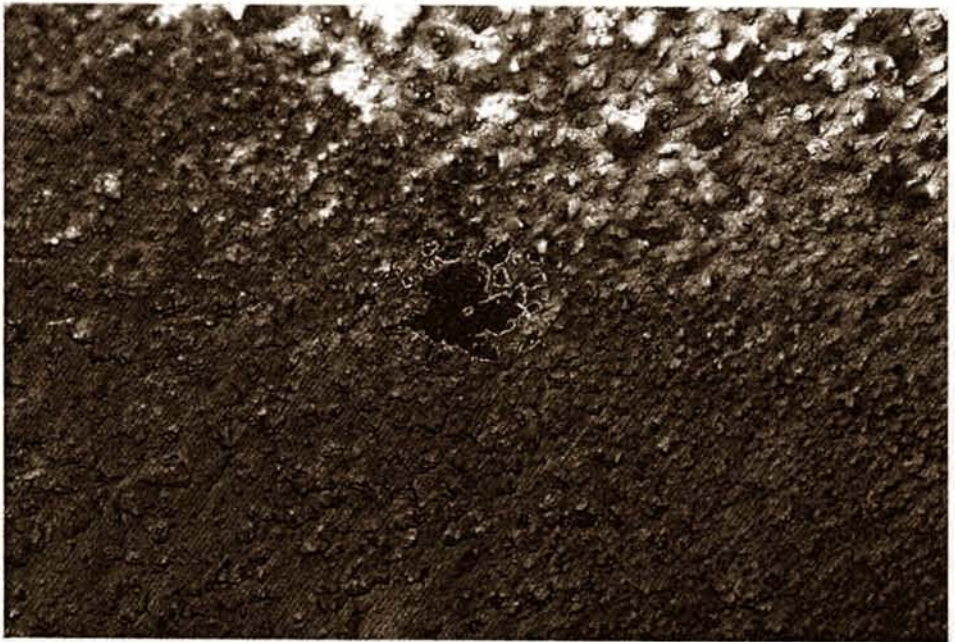
- 16 Same as Photo 15, except at a different location.



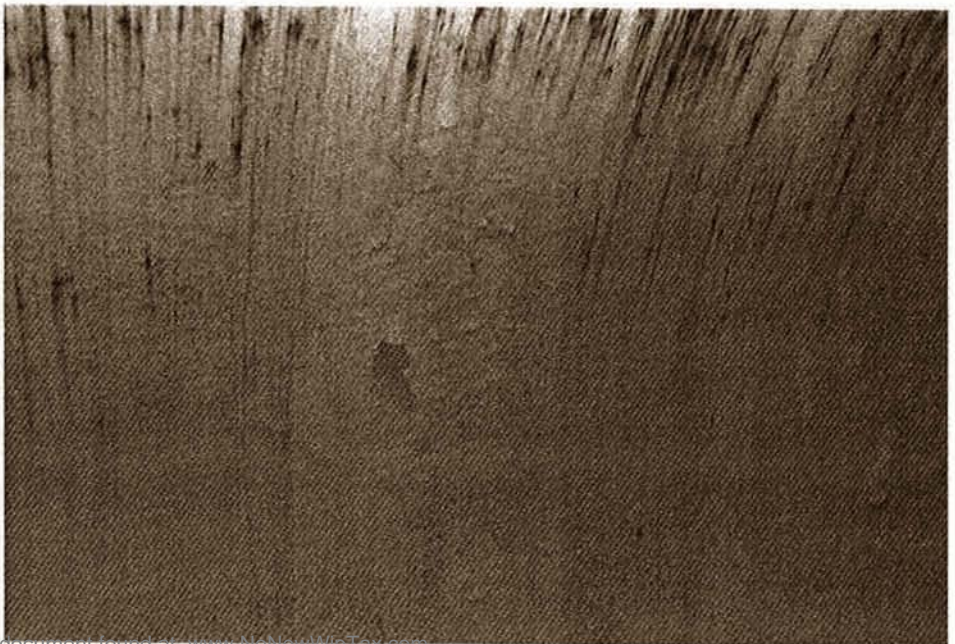
- 17 Close-up view of the tank, illustrating severe blistering and cracking of the coating with corrosion present.



- 18 Close-up view of the tank, illustrating an area of bare steel with minor pitting of the substrate present.



- 19 View of the side of the tank, illustrating blistering and delamination of the coating system with corrosion present.



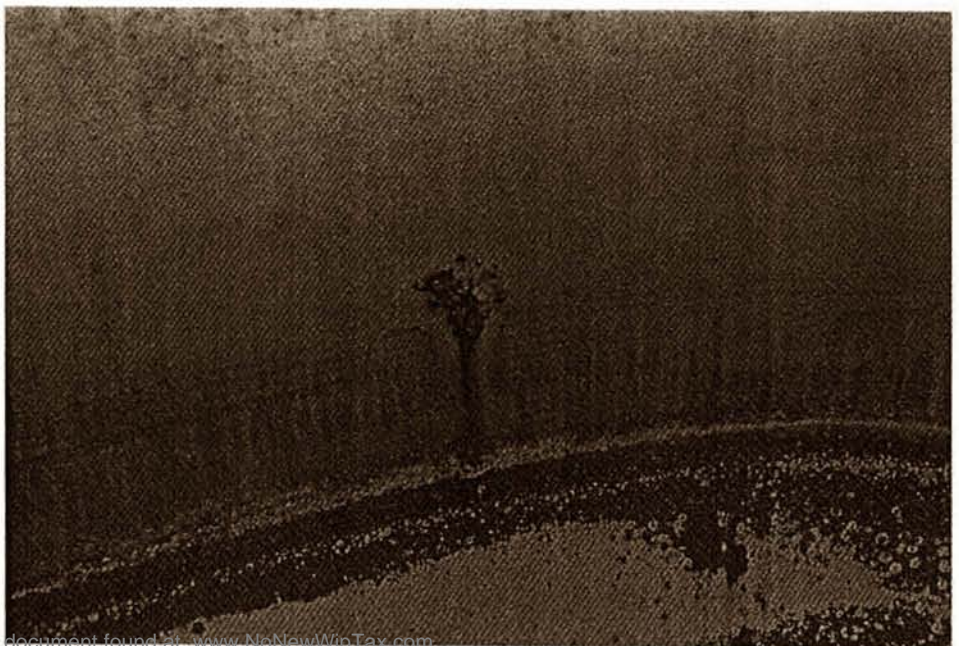
20 Same as Photo 19,
except at a different
location.



21 Same as Photos 19 and
20, illustrating
delaminating and
blistered coating with
corrosion present.



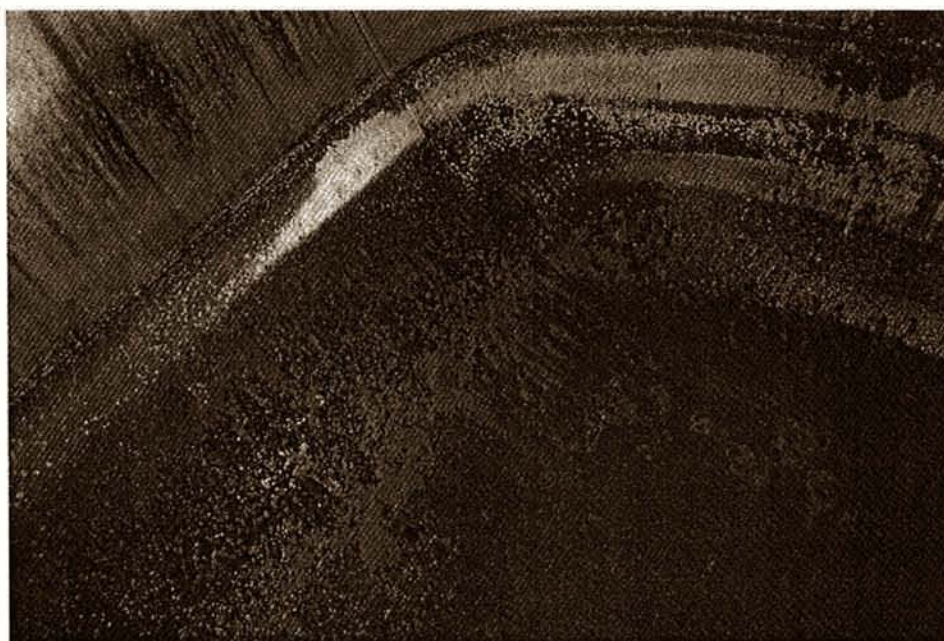
22 Close-up view of the
side, illustrating
blistering of the coating
and an isolated area of
severe corrosion
present.



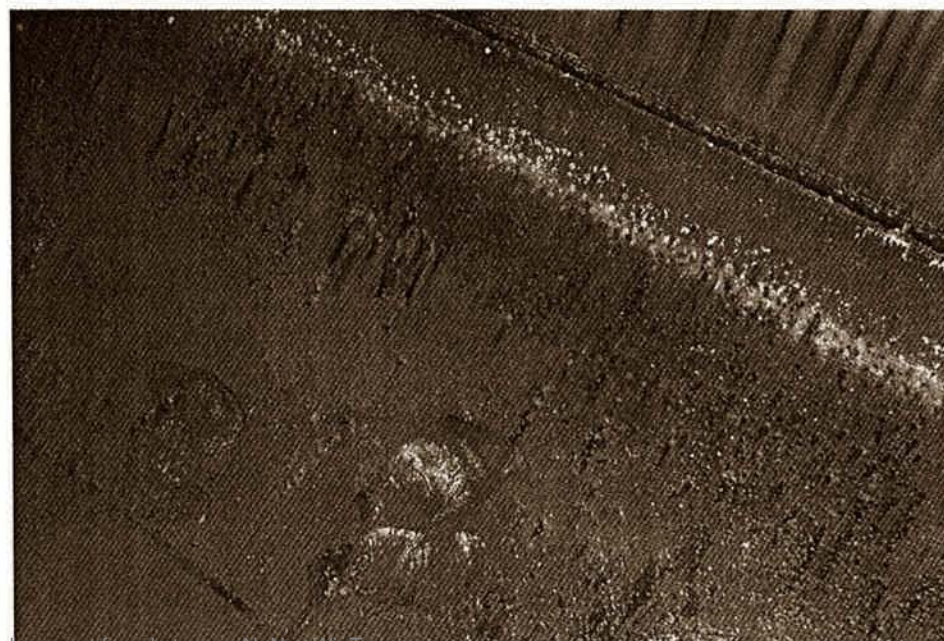
- 23 Same as Photo 22, except the corrosion was removed to illustrate minor pitting of the substrate.



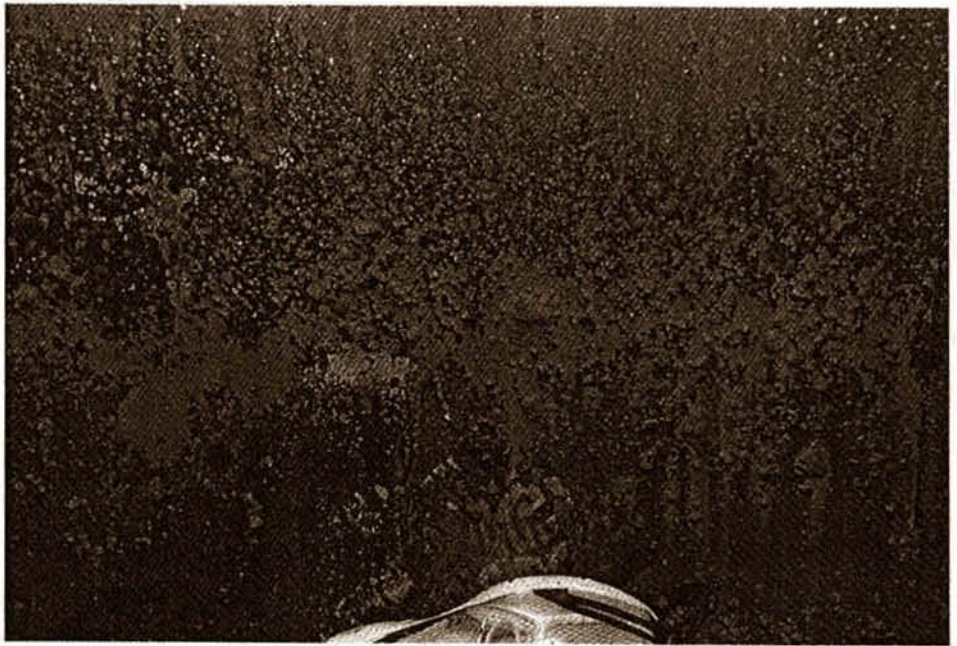
- 24 View of the bottom portion of the tank, illustrating random blistering of the coating with corrosion and dark brown staining present.



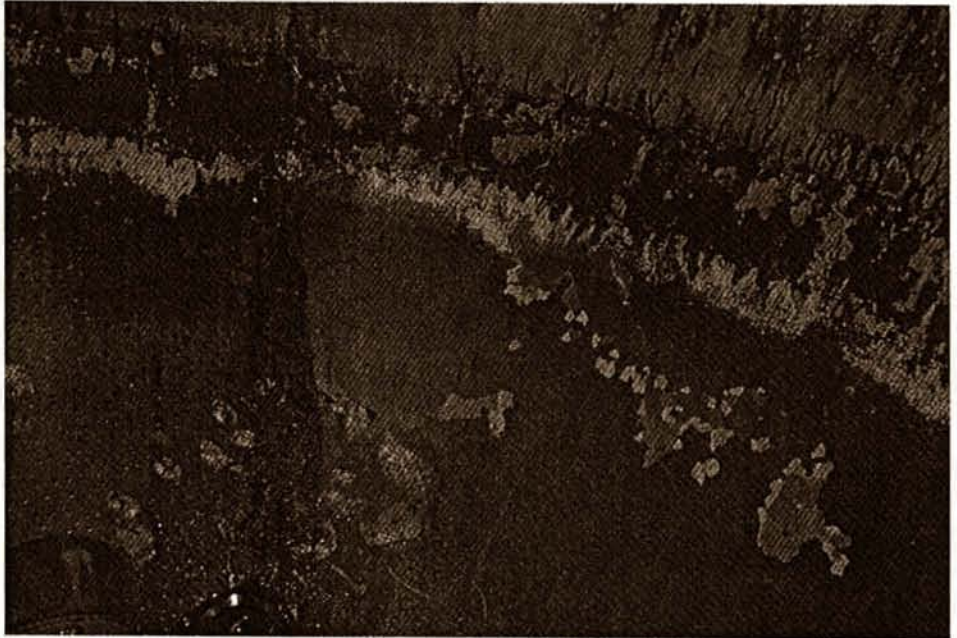
- 25 Same as Photo 24, except a closer view of the bottom. Note numerous rust tubercles present.



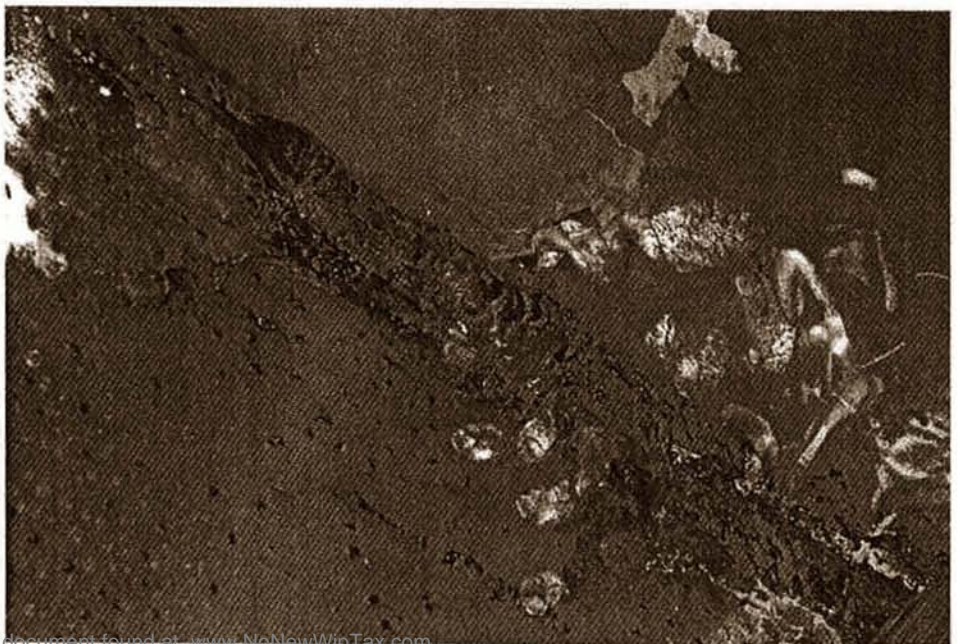
- 26 Close-up view of the bottom, illustrating blistering, staining and random tubercles present.



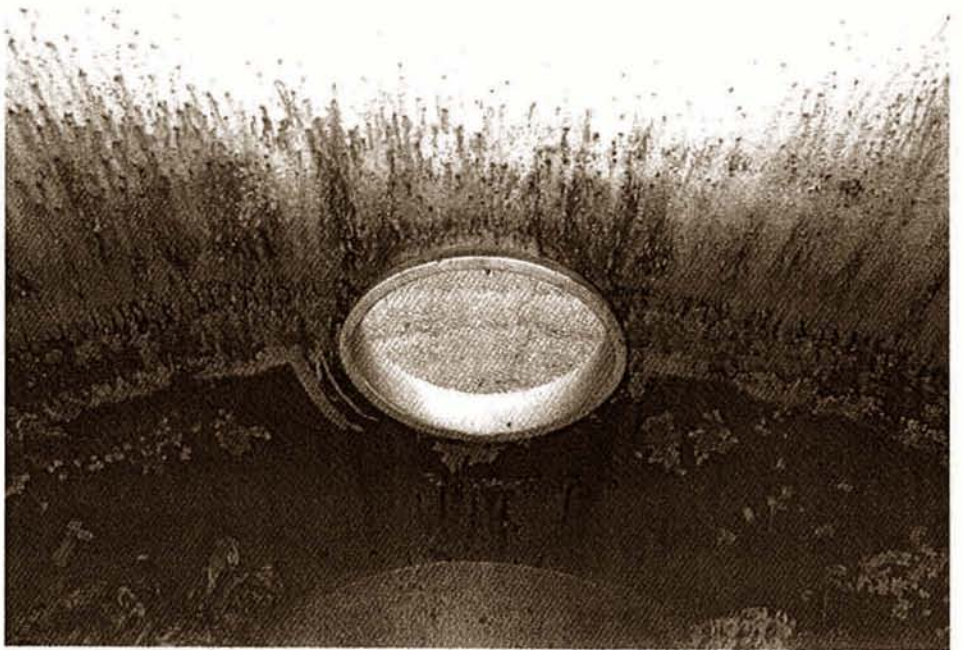
- 27 View of the bottom portion of the tank, illustrating delamination of the coating and severe staining present.



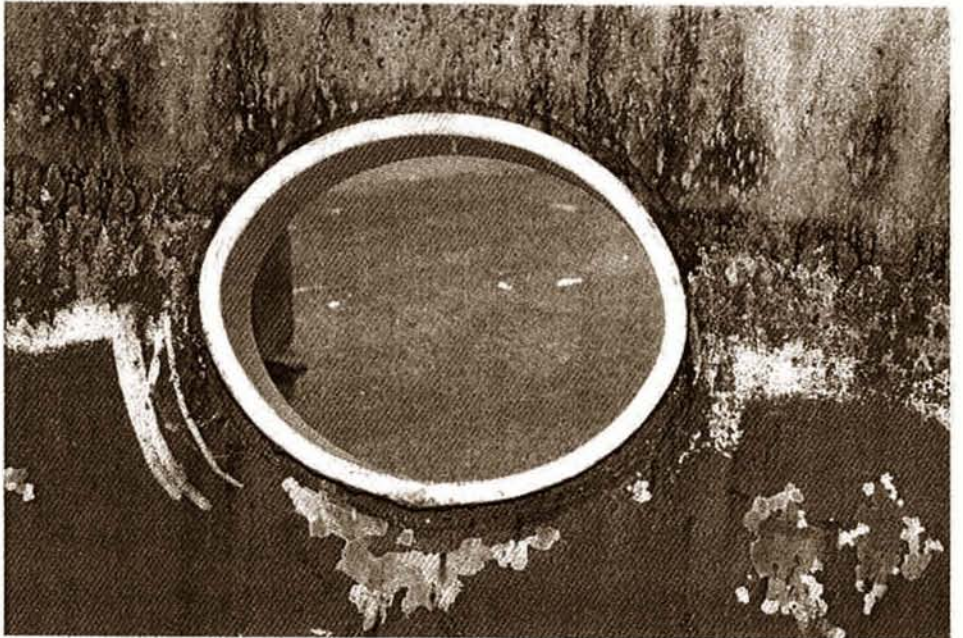
- 28 View of the bottom of the tank, illustrating moderate to severe corrosion along a weld seam.



- 29 View of the manhole, illustrating random blistering, delamination and staining of the coating system on adjacent surfaces.



- 30 Same as Photo 29, except at a different angle.

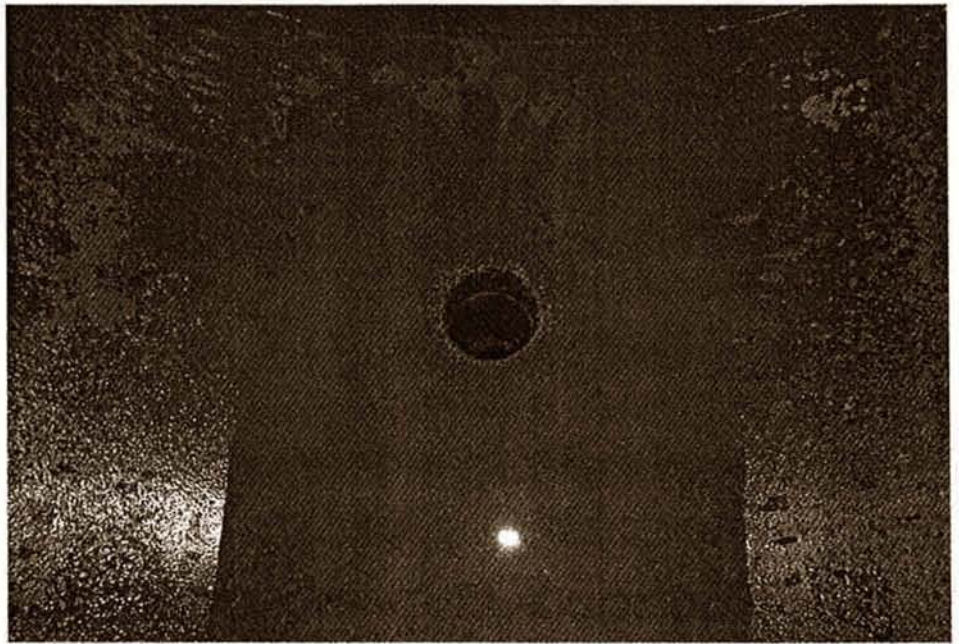


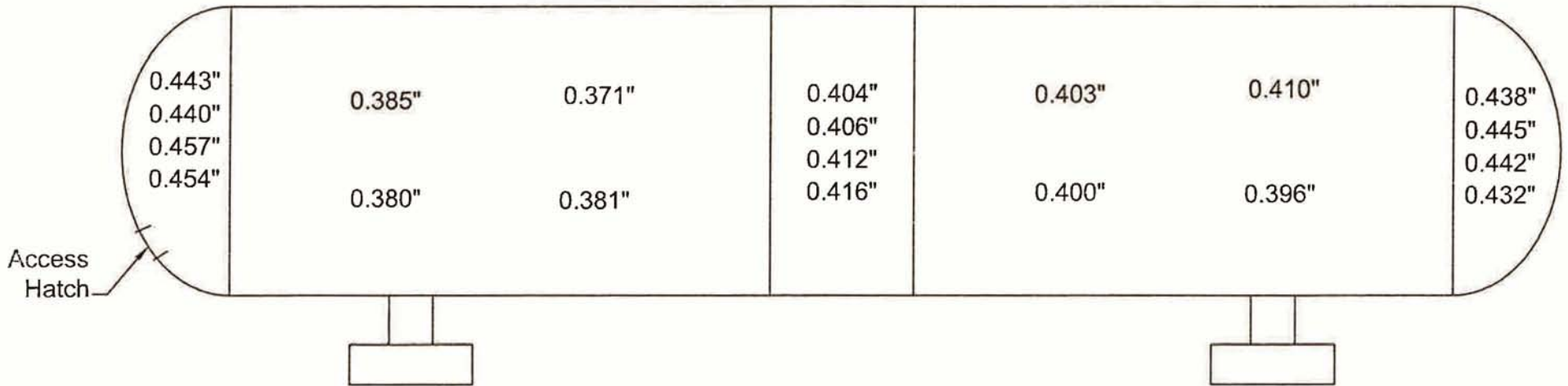
- 31 View of a penetration, illustrating blistering and cracking of the coating on the adjacent surfaces with corrosion present.



32

View of the outlet,
illustrating random
corrosion present on
the interior
circumference of the
penetration.





NOTE:
Thickness readings were taken at random locations within the specified sheet.

Harper & Associates Engineering, Inc.

Consulting Engineers

1240 East Ontario Ave., Ste 102-312, Corona, CA 92881-8671

DATE: JULY 31, 2007
DRAWN BY: JAMES SPEARS
DESIGN:
CHECKED BY: ANDRE HARPER
APPROVED FOR OWNER
DATE

PROJECT NAME:

NIPOMO COMMUNITY SERVICE DISTRICT
BLACK LAKE HYDRO-PNEUMATIC TANK

SHEET TITLE:

STEEL THICKNESS READINGS

WORK ORDER NO.	DWG NO.
BUDGET PROJECT NO.	SCALE NOT TO SCALE
DISTRICT NO.	
JOB NO. 2451	
SHEET NO.	1 OF 1

TO: BOARD OF DIRECTORS
FROM: BRUCE BUEL *BB*
DATE: AUGUST 17, 2007

**AGENDA ITEM
G
AUGUST 22, 2007**

COMMITTEE REPORTS

ITEM

Receive Minutes from the August 9, 2007 Supplemental Water Project (SWP) Design and Construction Committee Meeting and the August 13, 2007 Finance, Audit, and Personnel (FAP) Committee Meeting.

BACKGROUND

Attached is the set of draft minutes from the August 9, 2007, SWP Committee Meeting. The Members of the Committee or Staff can respond to questions and receive comments from the Board regarding the meeting or the draft minutes.

Attached is the set of draft minutes from the August 13, 2007, FAP Committee Meeting. The Members of the Committee or Staff can respond to questions and receive comments from the Board regarding the meeting or the draft minutes.

RECOMMENDATION

It is recommended that your Honorable Board discuss the draft minutes as appropriate.

ATTACHMENT

1. Draft August 9, 2007, SWP Committee Meeting Minutes
2. Draft August 13, 2007, FAP Committee Meeting Minutes

T:\BOARD MATTERS\BOARD MEETINGS\BOARD LETTER\BOARD LETTER 2007\COMMITTEE REPORTS 070822.DOC



NIPOMO COMMUNITY SERVICES DISTRICT

148 SOUTH WILSON STREET
POST OFFICE BOX 326
NIPOMO, CA 93444 - 0326
(805) 929-1133 FAX (805) 929-1932
Web site address WWW.NCSD.CA.GOV

MINUTES OF THE 8/9/07 MEETING OF THE SUPPLEMENTAL WATER PROJECT DESIGN & CONSTRUCTION COMMITTEE

1. CALL TO ORDER, ROLL CALL AND FLAG SALUTE

Chairman Trotter called the Special Meeting to order at 1pm in the NCSD Board Chambers. Both Chairman Trotter and Director Eby were in attendance along with staff members Bruce Buel, Celeste Whitlow, and Laura Pennebaker; Boyle representatives Mike Nunley, Malcolm McEwen, Brian Jordan, Keith Campbell and Chris Martin; and five members of the public. Chairman Trotter described the purpose and format of the meeting. There was no public comment.

2. RECEIVE PROGRESS REPORT ON SUPPLEMENTAL WATER PROJECT

Mike Nunley summarized the progress that Boyle had made on developing Technical Memorandums #2 and #3. Committee discussion followed on the potential use of the NVMWC Valve on Thompson and the status of Boyle's Budget. Cliff Trotter requested that Mike Nunley report back to the Committee at its next meeting regarding the status of Boyle's budget at that time. There was no public comment.

3. DISCUSS DANA POINT DESALINATION PROJECT

Mike Nunley introduced Brian Jordan from Boyle's Newport Beach Office. Mr. Jordan distributed copies of his power point slide presentation and the made his presentation. Committee discussion followed on the technology, the cost, and the feasibility of various drilling methods. Mike Nunley commented on the information that Boyle expected to include in the draft TM#3. Ian Wallace requested that Boyle comment on the timeline for development of water from a desalination facility once the agency decided to proceed. Brian Jordan indicated that the time frame for completion was 6 to 10 years depending on the complexity of the project and the sensitivity of the environmental setting. Cliff Trotter thanked Boyle for their excellent presentation.

4. SET NEXT COMMITTEE MEETING

The Committee agreed by consensus to meet at 2pm on Monday October 8, 2007 to discuss TM#2 and TM#3. There was no public comment.

**MINUTES OF THE 8/9/07 MEETING OF THE
SUPPLEMENTAL WATER PROJECT DESIGN & CONSTRUCTION COMMITTEE
Page 2**

5. ADJOURNMENT

Chairman Cliff Trotter thanked the public for participating. Chairman Trotter adjourned the meeting at 2:40pm.

T:\DOCUMENTS\STAFF FOLDERS\BRUCE\MINUTES\070809DESIGN.DOC



NIPOMO COMMUNITY SERVICES DISTRICT

148 SOUTH WILSON STREET
POST OFFICE BOX 326
NIPOMO, CA 93444 - 0326
(805) 929-1133 FAX (805) 929-1932
Web site address www.ncsd.ca.gov

MINUTES OF THE 8/13/07 MEETING OF THE FINANCE, AUDIT AND PERSONNEL COMMITTEE

1. **CALL TO ORDER, ROLL CALL AND FLAG SALUTE**

Chairman Vierheilg called the Special Meeting to order at 9:00 a.m. in the NCSD Board Chambers. Both Chairman Vierheilg and Director Trotter were in attendance along with staff members Bruce Buel and Lisa Bognuda. Members of the public included Jim Harrison.

2. **REVIEW FY 2006-07 AUDIT PROCESS WITH AUDITOR BOB CROSBY**

Staff introduced the auditor, Bob Crosby. Mr. Crosby discussed his educational and professional background. Mr. Crosby anticipates having a draft of the audit completed approximately two weeks after completion of the field work. He will meet with and review the draft audit report with the Committee.

3. **CONSIDER OPTIONS FOR RECRUITING SUPERINTENDENT**

Mr. Buel stated that after an intensive recruitment process, NCSD received one application. It is preferred to have a pool of candidates to select from. It appears that the salary range is the reason NCSD failed to receive a larger pool of candidates. The advertised salary range was 47. Mr. Buel reviewed the CCWA salary survey and recommends that we re-advertise at a salary range of 53.

The Committee adjourned to a recess at 9:40 and reconvened at 9:48.

The Committee agreed to recruit for a Superintendent at the salary range 53. Upon motion of Director Trotter and seconded by Director Vierheilg, the Committee unanimously agreed to forward the recommendation to the Board of Directors.

4. **CONSIDER EQUITY ADJUSTMENT OF FIELD FOREMAN SALARY RANGE**

Mr. Buel reviewed the previous board action that stated the current Utility Field Foreman would remain at salary range 36 until the Utility Superintendent reports to duty. In the mean time, NCSD advertised at salary range 42 for the Inspector/Preventative Maintenance Supervisor and received a pool of candidates to choose from. The hiring of the new Inspector/Preventative Maintenance Supervisor while the current Utility Field Foreman is still employed pending retirement, would allow for an overlap to provide for training of the new employee. Staff believes that it would be inequitable to hire the new inspector and ask the existing Utility Field Foreman to train that individual at a lower salary.

The Committee agreed to increase the current Utility Field Foreman salary from salary range 36 to 42 effective upon the retention of the Inspector/Preventative Maintenance Supervisor. Upon motion of Director Trotter and seconded by Director Vierheilg, the Committee unanimously agreed to forward the recommendation to the Board of Directors.

**MINUTES OF THE 8/13/07 MEETING OF THE
FINANCE, AUDIT AND PERSONNEL COMMITTEE**

5. CONSIDER ADDING 480 HOURS TO ASSISTANT AGREEMENT

Mr. Buel requested the Committee to add an additional 480 hours to Faith Watkins contract. Adding the additional hours will not trigger the requirement to pay benefits pursuant to the CALPERS rules provided that 960 hours is not exceeded in any fiscal year. Upon motion of Director Vierheilig and seconded by Director Trotter, the Committee unanimously agreed to forward the recommendation to the Board of Directors.

6. SET NEXT MEETING

The next Finance, Audit and Personnel Committee meeting is tentatively set for Wednesday, September 19, 2007 at 9:00 a.m.

t:\documents\board matters\minutes\standing committees\facp\08-13-07.doc