



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

FEB 18 1983

54W file

MEMORANDUM FOR: R. F. Warnick, Director, Office of Special Cases
FROM: W. D. Shafer, Chief, Section 2, Midland
SUBJECT: CREDENTIAL CHECKS ON STONE AND WEBSTER PERSONNEL

As directed by the Regional Administrator I have conducted a credential check of the key Stone and Webster personnel involved in the third party independent assessment of the Midland soils remedial work. These personnel are:

A. S. Lucks, Project Manager, previously worked on Shoram and North Anna (1976), Boston office

W. E. Kilker, Lead/Geotechnical Engineer, previously worked at Shoram (1976 to present)

L. T. Rouen, QA/QC, previously worked at Shoreham (1973-1975)

B. Holsinger, QA/QC, previously worked at Nine Mile 2 (1981 to present)

A. Scott, Construction Engineer, previously worked at River Bend (1976 to present)

The credential check consisted of telecommunications with the following utility representatives:

W. Stewart, Vice President, Nuclear Operations, North Anna

M. Sheldon, Superintendent of Construction, Nine Mile 2

J. Kelly, Construction QA Manager, Shoreham

C. Sorrell, Supervisor Civil Engineering, North Anna

W. Spencer, Vice President, Power Station Engineering, North Anna

R. Spence, Superintendent, Field Quality Control

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FEB 18 1983

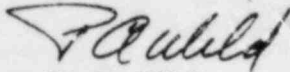
During my conversation with these individuals I asked if the utility had experienced any unacceptable performance by the S&W personnel involved in the work at their particular site. In each case they stated that they had no knowledge of any poor performance on the part of the persons they knew.

As a result of these testimonials I have discontinued any further credential checks.

W. D. Shafer
W. D. Shafer, Chief
Section 2, Midland

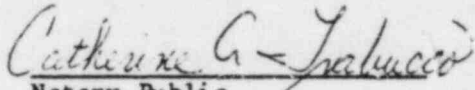
February 14, 1983

Under separate cover we are sending signed affidavits for each member of the Assessment Team. If you have any questions, please contact Mr. A. Stanley Lucks at (617) 589-2067.



P. A. Wild
Vice President

Sworn and subscribed to before me on this 14th day of February, 1983.



Notary Public
Suffolk County Massachusetts
My Commission Expires November 8, 1985.

Catherine Trabucco

NOTARY PUBLIC

For the Commonwealth of Massachusetts

My Commission Expires Nov. 8, 1985



STONE & WEBSTER MICHIGAN, INC.

P.O. Box 2325, BOSTON, MASSACHUSETTS 02107

PRINCIPAL STAFF			
RA	1/23	MAF	
D/RA		SCS	43
A/RA		WOL	
DEFP		ELQ	
DRMA		TRU	
LR/SP			
DEP			
ML			
OL		FILE	17

Mr. J. G. Keppler
 Administrator, Region III
 U.S. Nuclear Regulatory Commission
 799 Roosevelt Road
 Glen Ellyn, IL 60137

February 14, 1983
 J.O. NO. 14358
 MPS-8

RE: DOCKET NO. 50-329/330
 MIDLAND PLANT - UNITS 1 AND 2
 INDEPENDENT ASSESSMENT OF AUXILIARY BUILDING UNDERPINNING
 ASSESSMENT OF WORK ON PIERS W12 AND E12

As of February 11, 1983 the Stone & Webster - Parsons Brinckerhoff Assessment Team has observed the excavation, placing of reinforcement, and concreting of underpinning pier W12, and the excavation, and placing of reinforcement for underpinning pier E12. In addition, the Assessment Team has reviewed the drawings, procedures and other documents pertaining to the underpinning work and has observed the performance of the Quality Assurance and Quality Control Organizations during the progress of the work.

During the period that the Assessment Team has been on site, daily meetings have been held with Construction, Quality and Engineering personnel to obtain additional information and discuss observations.

The Assessment Team has issued twenty Weekly Reports to the U.S. Nuclear Regulatory Commission. These reports have described the activities of the Assessment Team and summarized their observations and findings.

The Assessment Team has issued a total of five Nonconformance Identification Reports. Four of these Nonconformance Identification Reports have been closed out to the satisfaction of the Assessment Team. The remaining open Nonconformance Identification Report was issued on February 10, 1983 and the Assessment Team feels that it can be closed out in the near future without impacting the progress of the underpinning.

The underpinning work is being performed in accordance with the construction and quality procedures. As the work has progressed, the procedures have been modified based upon experience gained during the construction of piers W12 and E12. The Assessment Team feels that these minor changes are appropriate and will have a positive effect on the quality of the underpinning work.

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FEB 15 1983

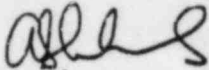
JGK

2

February 14, 1983

Based upon these observations and findings, the Assessment Team is of the opinion that additional piers could be released for construction. This will benefit the quality of the work by allowing the Contractor to maintain the experienced labor teams from piers W12 and E12.

If you have any questions, please contact me at (617) 589-2067.



A.S. Lucks
Project Manager



STONE & WEBSTER MICHIGAN, INC.

P.O. Box 2325, BOSTON, MASSACHUSETTS 02107

PRINCIPAL STAFF	
✓ A	10
D/RA	010-13
AV/A	
DEP	
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ER	
DEP	
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Mr. J. G. Keppler
Administrator, Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

February 15, 1983
J.O. NO. 14358
MPS-9

RE: DOCKET NO. 50-329/330
MIDLAND PLANT - UNITS 1 AND 2
INDEPENDENT ASSESSMENT OF AUXILIARY BUILDING UNDERPINNING
ASSESSMENT OF WORK ON PIERS W12 AND E12
TEAM MEMBER AFFIDAVITS

Enclosed with this letter are signed affidavits for the Stone & Webster and Parsons Brinckerhoff Assessment Team members.

If you have any questions with respect to these affidavits please call me at (617) 589-2067.

A.S. Lucks
Project Manager

ASL:PJC

4302230165
FEB 16 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2

Docket No. 50-329 OM
50-330 OM
Docket No. 50-329 OL
50-330 OL

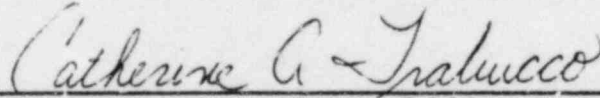
February 14, 1983

AFFIDAVIT OF 

My name is A.S. Lucks. I am employed by Stone & Webster Engineering Corporation as Project Manager.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils of underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14th Day of February 1983



Notary Public
Suffolk County, Massachusetts

My Commission Expires November 8, 1985

Catherine Trabucco
NOTARY PUBLIC

For the Commonwealth of Massachusetts
My Commission Expires Nov. 8, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2

Docket No. 50-329 OM
50-330 OM
Docket No. 50-329 OL
50-330 OL

February 14, 1983

AFFIDAVIT OF

W. E. Kilker

My name is W.E. Kilker. I am employed by Stone & Webster Engineering Corporation as Project Engineer.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils of underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14th Day of February 1983

Catherine A. Trabucco

Notary Public
Suffolk County, Massachusetts

My Commission Expires November 8, 1985

Catherine Trabucco
NOTARY PUBLIC

For the Commonwealth of Massachusetts
My Commission Expires Nov. 8, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

February 11, 1983

AFFIDAVIT OF

Paul F Barry

My name is PAUL F BARRY. I am employed by STONE & WEBSTER ENGINEERING CORP
as a STRUCTURAL ENGINEER

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 11th Day of Feb 1983 AP

Patricia A. Suffer

Notary Public

Jackson County, Michigan

Bay

My Commission Expires 3-4-86

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

February 11, 1983

AFFIDAVIT OF

A.B. Scott

My name is A.B. Scott. I am employed by Stone & Webster
as Engineer.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, ~~Bechtel~~^{as}, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14th Day of Feb 1983

Patricia A. Luffer

Notary Public

~~Jackson~~ Bay County, Michigan

My Commission Expires 3-4-86

I was employed by Bechtel Corporation from March 1951 to July 1968 and from June 1972 to September 1976. AS

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

February 11, 1983

AFFIDAVIT OF Lawrence T. Rouer

My name is Lawrence T. Rouer. I am employed by Stone and Webster Engr.* Corp.
as Senior Quality Assurance Engineer.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 11th Day of Feb, 1983 ^{pp}

Patricia A. Luffer
Notary Public

Jackson County, Michigan

My Commission Expires 3-4-86

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No. 50-329 OM
50-330 OM
Docket No. 50-329 OL
50-330 OL

February 11, 1983

AFFIDAVIT OF _____

Barry L. Holsinger
My name is Barry L. Holsinger. I am employed by Stone & Webster
as QA Engineer.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 12th Day of February 1983

Nancy S. Noble

Notary Public

My Commission Expires _____

NANCY S. NOBLE
Notary Public in the State of New York
Qualified in Oncon. Co. No. 34-2097710
My Commission Expires March 30, 1983

TRK

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

February 11, 1983

AFFIDAVIT OF Thomas R. Kuesel

My name is Thomas R. Kuesel. I am employed by Parsons Brinckerhoff Quade & Douglas, Inc.
as Senior Vice President.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14 Day of Feb ¹⁹⁸³ 1982

James Z. Boyd
Notary Public
~~Jackson County, Michigan~~
NOTARY PUBLIC, STATE OF NEW YORK
No. 3146-8195
Qualified in New York County
Commission Expires March 20, 1983

* From 1963 to 1967 I was employed by Parsons Brinckerhoff-Tudor-Bechtel, General Engineering Consultants for design and construction management of the San Francisco Bay Area Rapid Transit System, in the capacity of Assistant Manager of Engineering.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

February 11, 1983

AFFIDAVIT OF Louis G. Silano

My name is Louis G. Silano I am employed by Parsons Brinckerhoff Quade & Douglas, Inc.
as Technical Director.

Major Structures

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14 Day of Feb 1983

James G. Boyd
Notary Public
Jackson County, Michigan

My Commission Expires _____
JAMES G. BOYD
NOTARY PUBLIC, State of New York
No. 31722713
Qualified in New York County
Commission Expires March 30, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

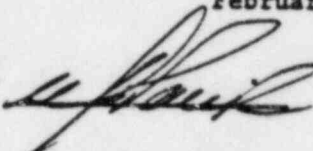
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

February 11, 1983

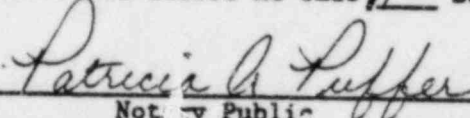
AFFIDAVIT OF



My name is W.C. PARISH. I am employed by Parsons Brinckerhoff Quade & Douglas
as Structural Engineer.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 11th Day of Feb 1983 PP



Notary Public

Jackson County, Michigan

Bay

My Commission Expires 3-4-86

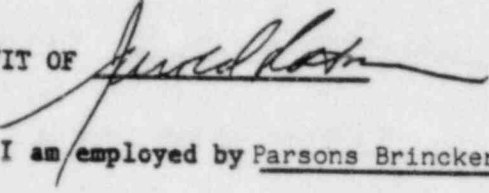
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No 50-329 OM
50-330 OM
Docket No 50-329 OL
50-330 OL

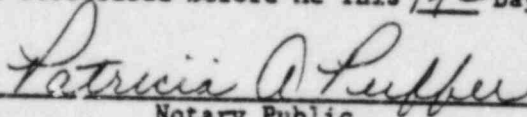
February 11, 1983

AFFIDAVIT OF 

My name is Jerrold Ratner. I am employed by Parsons Brinckerhoff, Quade and Douglas
as Manager, Construction.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14th Day of Feb 1983



Notary Public

~~Jackson~~ County, Michigan

Bay

My Commission Expires 3-4-86

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No 50-329 OH
50-330 OH
Docket No 50-329 OL
50-330 OL

February 11, 1983

AFFIDAVIT OF

Vincent J. Madill

My name is Vincent J. Madill I am employed by Parsons Brinckerhoff Quade & Douglas, Inc.
as Senior Engineer.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils or underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14 Day of Feb ¹⁹⁸³ 1982

James G. Boyd
Notary Public
~~Jackson County, Michigan~~

My Commission Expires

JAMES G. BOYD
NOTARY PUBLIC, STATE OF New York
No. 31-463396
Qualified in New York County
Commission Expires March 30, 1983

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COPY

SCrossier (enc)
EALong (enc)
CSundstrom (enc)
WEKilker (enc)
ASLucks/PJC (enc)

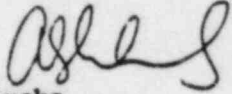
Mr. J. G. Keppler
Adminstrator, Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

February 18, 1983
J.O. NO. 14358
MPS-10

RE. DOCKET NO. 50-329-330
MIDLAND PLANT - UNITS 1 AND 2
INDEPENDENT ASSESSMENT OF AUXILIARY BUILDING UNDERPINNING
NOTARIZED COPY OF STONE & WEBSTER LETTER

In response to the request made by Mr. W. D. Shafer of your office on February 17, 1983, a notarized copy of the Stone & Webster letter to Mr. J. R. Schaub of Consumers Power Company dated November 9, 1982 is enclosed.

If we can be of further assistance please call me at (617) 589-2067.



A. S. Lucks
Project Manager

MAR 21 1983

4302240527



STONE & WEBSTER MICHIGAN, INC.

P.O. Box 2325, BOSTON, MASSACHUSETTS 02107

November 9, 1982

Mr. John R. Schaub
Project Manager
Consumers Power Company
1945 W. Parnall Road
Jackson, Michigan 49201

Dear Mr. Schaub:

Per your request to Mr. Carl F. Sundstrom I am enclosing a list and description of jobs that Stone & Webster Michigan Inc. has undertaken for Consumers Power Company (CPCo). I am also providing the results of my investigation of our holdings in CPCo securities.

If we can be of further assistance, please call Mr. Carl F. Sundstrom at (617) 589-2780.

Very truly yours,

P. A. Wild
Vice President

This is a true copy of the original letter originally signed by me on November 9, 1982.

P. A. Wild
Vice President

Sworn and subscribed to before me
on this 18th day of February, 1983

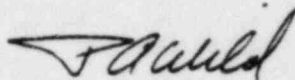
Notary Public
Suffolk County, Massachusetts
My Commission Expires November 8, 1983

HOLDINGS OF CPCo SECURITIES

Stone & Webster, Inc., the parent company of Stone & Webster Engineering Corporation and its subsidiaries (including SWEC) have no holdings of CPCo securities. The Employee Savings Plan of Stone & Webster, Incorporated and participating subsidiaries is administered by the Chase Manhattan Bank, N.A. as trustee. Funds may be invested in the Employee Benefit Investment Funds, Equity Fund of the Chase Manhattan Bank which is a commingled fund. Stone & Webster exercises no direct control over the investment of such funds.

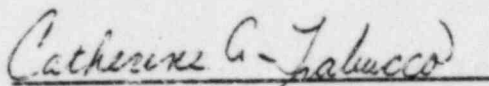
The Chemical Bank of New York is trustee for the Employee Retirement Plan of Stone & Webster, Inc. and for participating subsidiaries. There are no CPCo securities held in the plan.

This is a true copy of the second of two attachments to the letter originally signed by me on November 9, 1982.



P. A. Wild
Vice President

Sworn and subscribed to before me on
this 18th day of February, 1983.

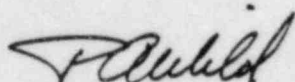


Notary Public
Suffolk County, Massachusetts
My Commission Expires November 8, 1985

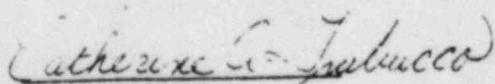
<u>Start Date</u>	<u>End Date</u>	<u>Brief Description</u>	<u>Key Person</u>
3/78	12/81	Review Midland Plant list of equipment and recommend spare parts.	RDewitt RMontross GSleigh
6/78	6/80	Prepare an outage critique report on the Palisades Station second outage and provide planning support for the September, 1979 refueling outage.	KSpencer
11/78	6/80	Procure a mobile security access module to be used for outage work forces at Palisades.	KSpencer
3/82	7/82	Evaluate and make recommendation for training and implementation of the Midland Site Emergency Plan. *	RDoane SHowell WBeckman
9/82	--	Perform an independent assessment of construction activities related to the auxiliary building and feedwater isolation valve pit remedial work at the Midland Site.	JCook JMooney JSchaub
10/82	--	Provide emergency planning consulting services for the Big Rock Site.	RSindermann WMiller
2/82	--	Perform vibration analysis on the boiler feed pump at the J. H. Campbell Unit 3 and recommend and implement corrective actions.	JFord TMehl CKeller
10/82	--	Provide services and materials to coordinate the 1983/84 Palisades refueling outage.	TElwood JSchneider

* Note - S&W did the review but NUTECK who was already working in Michigan for Detroit Edison at the Fermi Station is doing the detailed planning.

This is a true copy of the first of two attachments to the letter originally signed by me on November 9, 1982


P. A. Wild
Vice President

Sworn and subscribed to before me on this
18th day of February, 1983


Notary Public
Suffolk County Massachusetts
My Commission Expires November 8, 1985



STONE & WEBSTER MICHIGAN, INC.

P.O. Box 2325, BOSTON, MASSACHUSETTS 02107

PRINCIPAL STAFF			
✓	RA	AG	13
	DRA		
	AS		

Mr. J. G. Keppler
Administrator, Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

March 15, 1983
J.O. No. 14358
MPS- 12

Re: DOCKET NO. 50-329-330
MIDLAND PLANT - UNITS 1 AND 2
INDEPENDENT ASSESSMENT OF AUXILIARY BUILDING
UNDERPINNING
AFFIDAVITS AND RESUMÉS FOR ADDITIONAL TEAM MEMBERS

With the extension of the duration of the independent assessment of the underpinning work at the Midland Plant, Stone & Webster feels that it may be necessary to supplement the existing assessment team. In this regard, affidavits and resumés for additional team members that may become involved in the assessment are enclosed with this letter:

- P. J. Majeski - Geotechnical Engineer
- R. J. Henry - Construction
- R. J. Beudet - Quality Assurance

Stone & Webster has determined that these individuals meet the independence requirements for this work.

If you have any questions, please contact me at (617) 589-2067.

A. S. Lucks
Project Manager

ASL:PJC

830322 0169

MAR 16 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No. 50-329 OM
50-330 OM
Docket No. 50-329 OL
50-330 OL

February 14, 1983

AFFIDAVIT OF

P. J. Majeski

My name is P.J. Majeski. I am employed by Stone & Webster Engineering Corporation as Senior Geotechnical Engineer.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils of underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14th Day of ^{March} February 1983

Catherine A. Tralucco

Notary Public
Suffolk County, Massachusetts

My Commission Expires November 8, 1985

February 1983

MAJESKI, PETER J.

SENIOR SOILS ENGINEER
GEOTECHNICAL DIVISION

EDUCATION

Northeastern University - B.S. in Civil Engineering 1966
Northeastern University - M.S. in Civil Engineering 1970
Harvard University - Special Soil Mechanics Program for Practicing Engineers and Teachers 1968
Northeastern University - Additional Studies in Engineering Geology and Rock Mechanics 1973-1974
Northeastern University - Studies in Business Administration 1979-1981

Specialty Conferences - Lateral Stresses in the Ground, Performance of Earth and Earth-Supported Structures, 19th U.S. Symposium on Rock Mechanics, Ports

Lecture Series - Engineering Geology and Groundwater, Deep Foundations, ~~Lateral Earth Pressure, and Welding~~

LICENSES AND REGISTRATIONS

Professional Engineer - Alaska, Indiana, Massachusetts

EXPERIENCE SUMMARY

Mr. Majeski, a Senior Soils Engineer, has 17 years of experience in geotechnical engineering, including 12 years experience as Lead Geotechnical Engineer on 12 power projects in the United States. His primary areas of expertise are foundation design and construction, site preparation, waterfront structures including bulkheads, cofferdams and offshore pipelines, shore and erosion protection, rock anchors, dewatering, and special testing.

As Lead Geotechnical Engineer, he has administrative and technical responsibilities for all geotechnical aspects of a project throughout the exploratory, engineering, design, and construction phases. This includes cost and feasibility studies to support conceptual design, preparation of licensing documents, preparation of foundation reports, setting design criteria, and developing specifications and drawings.

In addition to his experience in the power industry, Mr. Majeski has been involved in civil, structural, and foundation engineering for highways, waterworks, sanitation facilities, airfields, port facilities, and urban redevelopment.

PROFESSIONAL AFFILIATIONS

Boston Society of Civil Engineers Section/American Society of Civil Engineering - Member

Geotechnical Group Forum Committee - Member 1972-1974, 1977-1979

Waterways, Port, Coastal and Ocean Group - Vice Chairman 1982-1983

PJM

American Society of Civil Engineers - Member
Geotechnical Engineering Division - Improvement and Placement of
Soils - Committee Member, 1982-1983
Energy Division - Energy Resources Management - Committee Control Group
Member, 1982-1983

PUBLICATIONS

Rock Anchor Support of Marine Bulkhead - Senior Author with P. K. Taylor and
J. A. DiVito. Presented at ASCE Convention and Exposition, Boston, 1979

DETAILED EXPERIENCE RECORD
MAJESKI, PETER J. 55838

STONE & WEBSTER ENGINEERING CORPORATION, BOSTON, MA (Apr 1971 to Present)

Appointments:

Senior Soils Engineer - Mar 1975
Soils Engineer - Apr 1973
Engineer (Soils) - Apr 1971

Solar Repowering, Newman Station, El Paso Electric Company (Oct 1982 to Present)

As LEAD GEOTECHNICAL ENGINEER, was responsible for determination and implementation of all phases of the geotechnical investigations and analyses for preliminary design of the heliostat and central receiver foundations. The scope included development of the field exploratory and laboratory testing programs, analysis and design of foundations and preparation of a geotechnical report.

Rio Penstock Replacement, Orange and Rockland Utilities, Inc.
(July 1982-Nov 1982)

Developed the subsurface exploratory program, directed foundation analysis, and prepared foundation design criteria for replacement of an above ground penstock in a potential landslide area. This work included an analysis of an existing earth dam which has excessive hydrostatic pressures in the underlying rock foundation. This work also involved preparation of contract documents for the penstock replacement which included installation of the instrumentation for monitoring an existing slope for future movement.

Patriot Generating Station, Indianapolis Power and Light Company
(Aug 1976 to Present)

As LEAD GEOTECHNICAL ENGINEER, has been in responsible charge of the subsurface investigations and analysis and foundation recommendations for the main powerhouse and adjacent structures.

This included preparation of a Geotechnical Report which presents the subsurface conditions and foundation recommendations.

Also is in responsible charge of the design of the waterfront cellular structures, pump house cofferdam and dewatering methods. Supervised preparation of a site evaluation for the proposed coal-fired power plant including preparation of a summary report. This evaluation included studies for siting and licensing of the power plant, coal unloading and handling facilities, cooling towers, and other auxiliary structures.

Other responsibilities included supervision of geotechnical studies for determination of groundwater parameters for use in studying the feasibility of obtaining cooling water makeup from the groundwater.

PJM

PFB Pilot Plant - Curtiss Wright Corporation (Mar 1976 to Present)

As LEAD GEOTECHNICAL ENGINEER, supervised the studies necessary for a foundation report for an experimental power plant project at the Curtiss-Wright facilities in Wood-Ridge, New Jersey.

In addition, has made analyses, set design criteria, prepared contract documents, and monitored construction activities for the foundations of the plant and appurtenant structures.

Sears Island Station, Central Maine Power Company (July 1978-Feb 1980)

As LEAD GEOTECHNICAL ENGINEER, involved in the planning of the geotechnical effort to support site layout, licensing, and design of a large coal-fired power plant near Searsport, Maine.

Ethylene Complex No. 1 - Libya, Azzawiya Oil Refining Company, Inc.
(July 1978-Dec 1980)

Provided geotechnical services for conceptual and final design of foundations for power generation and desalination facilities. Work included the study of cofferdams and dewatering schemes for a large desilting basin founded in porous limestone. Schemes involving cutoff walls and grout curtains were investigated.

Fuel Unloading Facilities - Salem Harbor Station (Apr 1976-June 1979)

Supervised the analysis, design, and preparation of contract documents for a sheet pile bulkhead with rock anchor support at Salem Harbor Station. Also served in a consulting capacity during construction. This project involved replacement of deteriorated structures, including the docking facilities, while maintaining the existing fuel unloading facilities.

Add-On Facility - Gas Diffusion Plant, Energy Research and Development Administration (Aug 1976-Apr 1977)

As LEAD GEOTECHNICAL ENGINEER, responsible for coordination of design of five large electrical switchyards near Portsmouth, Ohio.

River Bend Power Station, Gulf States Utilities Company (Apr 1976-Feb 1977)

As SPECIALIST for site preparation, had responsibility for the technical aspects of specifications for site preparation including placement of fill for support of structures.

Shoreham Nuclear Power Station, Long Island Lighting Company
(Apr 1976-Sept 1976)

As SPECIALIST for installation of offshore pipelines, reviewed the design, specification preparation, and installation of the discharge pipe and diffuser system projecting approximately 1 mile offshore into Long Island Sound.

PJM

Charlestown, Rhode Island - Units 1 and 2, New England Power Company
(Feb 1974-May 1976)

As LEAD GEOTECHNICAL ENGINEER, supervised geotechnical data acquisition and analysis necessary for preparation of the Preliminary Safety Analysis Report and the Environmental Report. The studies for these reports included liquefaction analysis, slope stability analysis under dynamic loading, groundwater analysis, measurement of the elastic properties of soil and rock, and geologic research investigations.

Was also involved with plant siting and conceptual design of the circulating water system and site layout.

Associated with the project was the preliminary evaluation and report for four alternate sites.

Canal Plant - Unit 2, NEGEA Service Corporation (Nov 1971-Jan 1976)

As LEAD GEOTECHNICAL ENGINEER, in responsible charge of all geotechnical work for design and construction of the second unit at this site.

Work included settlement analysis of powerhouse, preparation of Soils Report, and specifications for the excavation of unsuitable soils and replacement with compacted fill. Set foundation design criteria for the powerhouse, temporary and permanent braced sheet pile structures, fuel storage tanks, and other structures. Worked in cooperation with construction forces to ensure quality control during the performance of the work. A portion of this work included setting design criteria and preparing specifications for a large diameter concrete pipeline and diffuser to be installed underwater.

Newman Power Station - Unit 4, El Paso Electric Company (June 1973-Aug 1975)

As LEAD GEOTECHNICAL ENGINEER, prepared scope of exploratory program, analyzed data, and made foundation recommendations for all structures. Supervised preparation of specifications for excavation of unsuitable soils and backfill with compacted fill for several structures on site. In addition, supervised preparation of other site-related specifications, preparation of the Soils Report, and design of two lined wastewater ponds.

Presque Isle Station - Units 5 and 6, Upper Peninsula Generating Company
(Sept 1971-Aug 1975)

As LEAD GEOTECHNICAL ENGINEER, during design and construction, reviewed earthwork specifications and provided assistance in the design of various structures including powerhouse, reclaim pit, and screenwells. Set design criteria and assisted in preparing drawings and specifications for the circulating water intake and discharge pipelines and related work. The pipelines are large diameter, filament-wound fiberglass installed in Lake Superior.

PJM

Lockhart Site - Unit 1, El Paso Electric Company (Apr 1972-July 1973)

As LEAD GEOTECHNICAL ENGINEER, prepared exploratory programs and specifications, wrote preliminary soils and foundation report. Prepared specification for an aerial topographic survey of the site.

Tracy Power Station - Unit 3, Sierra Pacific Power Company
(Apr 1971-Mar 1973)

As LEAD GEOTECHNICAL ENGINEER, in responsible charge of all foundation engineering.

Prepared program and supervised foundation investigations and made feasibility, ease of construction, and cost studies for various structures required on site. Set foundation design criteria, prepared Soils Report, wrote portions of earthwork specifications, and provided assistance, as necessary, during construction. Supervised the preparation of drawings and specifications for a 4-acre, lined evaporative waste pond.

Surry Power Station - Units 3 and 4, Virginia Electric and Power Company
(Oct 1972-Dec 1972)

Assisted the Lead Geotechnical Engineer during acquisition of field data for Units 3 and 4. Duties included implementation of the exploratory program and reduction and analysis of data leading to foundation recommendations and preparation of the Preliminary Safety Analysis Report.

North Anna Power Station - Unit 3, Virginia Electric and Power Company
(Nov 1972)

Assisted Lead Geotechnical Engineer by making preliminary settlement analyses of various tank structures.

Assisted in setting procedures for the installation of earth pressure cells for measurement of lateral pressures on the Unit 3 containment.

FAY, SPOFFORD & THORNDIKE, INC., BOSTON, MA (Dec 1968-Apr 1971)

Soils Engineer

Assignments as the only permanent Soil Engineer varied, frequently involving engineering and design in civil engineering fields other than the soil mechanics and foundations. This work included structural and hydraulic design, site layout, and grading and design of slope protection.

Responsible for the seepage and foundation studies for a small suburban reservoir comprised of approximately 6,000 ft of dike of varying heights up to approximately 30 ft. Duties included coordination of the various aspects of the project and preparation of the earthwork specifications.

PJM

Engaged in making seepage studies and recommendations regarding infiltration rate from sewage lagoons.

Work in highway engineering included numerous bridges and walls underlain by varied soil conditions including peat, rubbish fill, and clay. Studies and recommendations were made regarding preloading for construction of highway embankments over soft soils.

Designed various waterfront structures including cellular and sheet pile bulkheads. This work included design of a 600 ft cellular bulkhead for use as a wharf at Ogdensburg, New York.

HALEY & ALDRICH, INC., CAMBRIDGE, MA (May 1967-Dec 1968)

As ASSISTANT SOILS ENGINEER, assignments included design and economic studies, reports, and field work for shopping centers, waterfront structures, and building towers.

Other duties included construction supervision of pile installations and spread footing foundations on sensitive soils and data and soil sample acquisition on special exploratory projects.

Prior to receiving a B.S. Degree, worked part time with this firm as a Soil Technician performing laboratory and field tests, inspection of borings, test pits, Gow caissons, compacted fill placement, and piling.

C.A. PICKERING ASSOCIATES, WEST BRIDGEWATER, MA (May 1966-May 1967)

As JUNIOR CIVIL ENGINEER, designed sewer and storm drain systems, along with various structural components and foundations. Supervised a number of pile load tests for the NASA site in Cambridge, Massachusetts, and other sites in the Boston area.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2)

Docket No. 50-329 OM
50-330 OM
Docket No. 50-329 OL
50-330 OL

February 14, 1983

AFFIDAVIT OF



My name is R. J. Henry. I am employed by Stone & Webster Engineering Corporation as Asst. Superintendent.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils of underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14th Day of ^{MARCH} ~~February~~ 1983

Mary S. Recker

Notary Public

Mobile County, Alabama

My Commission Expires 10/25/83

ROBERT J. HENRY

ASSISTANT SUPERINTENDENT
OF CONSTRUCTION

EDUCATION

Marietta College - B.S. Geology

LICENSES AND REGISTRATIONS

California - Registered Professional Geologist

Registered Professional Engineering Geologist

EXPERIENCE SUMMARY

Mr. Henry has over 20 years experience in heavy construction including dam and earthwork, nuclear power plant and process construction. Since joining SWEC in 1969, Mr. Henry has steadily progressed from Construction Engineer to his present assignment as Assistant Superintendent of Construction on a 100 MM/GPY Methanol project for Getty Refining & Marketing Company in Delaware, where he is responsible for all construction activities for the installation of this plant.

Before this, he was assigned to a large nuclear power plant at St. Francisville, Louisiana. In this capacity, he is in direct charge of the offsites area including waterfront work.

Prior to this, Mr. Henry was assigned as Senior Construction Supervisor, then Assistant Superintendent of Construction for a large ethylene plant at Port Arthur, Texas. On this assignment Mr. Henry was initially in charge of all construction planning work. He finished the project in charge of all construction equipment and services.

Earlier, Mr. Henry was assigned as Construction Engineer, then Construction Supervisor on the construction of a large nuclear power plant at North Anna, Virginia. In these capacities, Mr. Henry was responsible for earthwork, excavation and backfill operations. He was further responsible for the scheduling and management of construction equipment.

Before joining SWEC, Mr. Henry held positions with the U.S. Army Corp. of Engineers and the Virginia Department of Highways engaged in earthwork and dam construction.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
CONSUMERS POWER COMPANY
(Midland Plant, Units 1 and 2

Docket No. 50-329 OM
50-330 OM
Docket No. 50-329 OL
50-330 OL

February 14, 1983

AFFIDAVIT OF Roland J Beaudet Jr.

My name is Roland J Beaudet Jr. I am employed by Stone & Webster Engineering Corporation as Chief QC Insp Supervisor.

I am currently assigned to the team which is conducting an independent assessment of soils work at the Midland Nuclear Plant site. Prior to being given this assignment, I have never worked on any job or task associated with the Midland Project, or any job or task for or on behalf of Consumers Power Company, Bechtel, or the Mergentime Company relating to soils of underpinning. I have never been employed by Consumers Power Company, Bechtel, or Mergentime Company. I do not own any shares of Consumers Power Company, Bechtel, or Mergentime stock. Mutual funds or other funds in which I may have a beneficial interest, but over which I have no control, may own shares of Consumers Power Company, Bechtel, or Mergentime stock, of which I am unaware. A list of such funds in which I have an interest are attached. I have no relatives which are or have been employed by Consumers Power Company, Bechtel, or Mergentime Company.

Sworn and Subscribed Before Me This 14th Day of ~~February~~ ^{March} 1983

Jean M Middlebrooks
Notary Public
West Feliciana Louisiana

My Commission Expires at death

BEAUDET, JR. ROLAND J.

JANUARY 1983

April 12, 1939

FIELD QUALITY CONTROL

Married - Four Children

EDUCATION

Chicopee High School, Chicopee, Mass.

Apprentice Ship - Boilermaker, Graduate

Norfolk Naval Shipyard, Portsmouth, Virginia

REGISTRATIONS

None

TECHNICAL SOCIETIES

None

PATENTS

None

LANGUAGES

None

EXPERIENCE SUMMARY

Mr. Beudet joined Stone & Webster Engineering, River Bend Power Station, St. Francisville, Louisiana in January 1980 as a QC Engineer on loan to Graver, subcontractor, to perform surveillance inspections of Welding, NDE, Document Control, QA Manual and Specification requirements. In April 1980 he supervised radiography, interpreting radiographic film, providing assistance in Pipe Installation, Welding Inspections, Documentation review and other Quality related activities. Since January 1981 Mr. Beudet has been supervising the installation and testing of the HAVAC System, performing surveillance inspections of Graver activities including reviewing all RT film and providing technical assistance in the structural welding section.

Prior to River Bend Power Station Mr. Beudet has been with Stone & Webster Engineering as a QC Engineer at the Nine Mile #2 Plant, J.A. Fitzpatrick, Shoreham and Surry Power Station in Piping, Welding, and NDE.

Prior to joining Stone & Webster Engineering Corporation, he was a Metal Lab Inspector performing non-destructive examinations on Nuclear Submarine Piping Systems. He also has had experience as a boiler inspector including repairs, hydrotest, tube replacement, and generator repairs. Prior to his nuclear experience, Mr. Beudet was employed as a boilermaker for six years.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

Spessard
~~*Watts*~~
Panolson
Key
Hawkins

JUN 27 1983

Docket No. 50-329
Docket No. 50-330

Ms. Mary Sinclair
5711 Summerset Drive
Midland, MI 48640

Dear Ms. Sinclair:

This is in response to your letter of April 18, 1983, to me in which you convey the concerns you had received from an anonymous worker at the Midland plant. Your letter indicates the worker's principal concerns are (1) the lack of professional engineering registration of certain Bechtel employees performing work at the Midland site, and (2) the lack of qualified/trained people doing Zack design work.

Regarding item 1, the resident inspector reviewed the resumes of Messrs. Davis, Soderholm, Ash, and Entrokin and determined that they each have many years of experience in their respective fields of work. Region III, therefore, has been unable to establish any substantive basis for this concern. The matter of professional registration does not relate to any NRC requirement and we suggest it be pursued with the State of Michigan. We note that the Michigan Attorney General was on your list of individuals receiving a copy of your letter.

Regarding item 2, the NRC (Region III) is performing a special inspection of the Zack heating, ventilation, and air conditioning work at Midland. The NRC inspection will include a sample review of the Zack employees' qualifications and training. The findings of the inspection will be documented in an inspection report and a copy will be sent to you.

Your letter also identifies a concern that the worker had regarding difficulties a former welder had encountered at the site causing him to quit his job. The lack of specificity regarding this concern does not currently warrant an NRC investigation/special inspection. Should more specific information be provided in the future, the NRC will be glad to look into this matter.

8307050101

Allegation

Ms. Mary Sinclair

- 2 -

JUN 27 1983

We trust this has been responsive to your concerns.

Sincerely,

Original signed by
James G. Keppler

James G. Keppler
Regional Administrator

cc w/ltr dtd 4/18/83:
 Attorney General Frank Kelley
 Senator Carl Levin
 Senator D. Riegle
 Congressman D. Albosta
 DMB/Document Control Desk (RIDS)
 Resident Inspector, RIII
 The Honorable Charles Bechhoefer, ASLB
 The Honorable Jerry Harbour, ASLB
 The Honorable Frederick P. Cowan, ASLB
 The Honorable Ralph S. Decker, ASLB
 William Paton, ELD
 Michale Miller
 Ronald Callen, Michigan
 Public Service Commission
 Myron M. Cherry
 Barbara Stamiris
 Wendell Marshall
 Colonel Steve J. Gadler (P.E.)
 Howard Levin, TERA
 Billie P. Garde, Government
 Accountability Project
 Lynne Bernabei, Government
 Accountability Project

bcc w/ltr dtd 4/18/83:
R. L. Spessard

OFFICE	RIII	JJA	JJA	OK	L/HZ	A	OK
SURNAME	Gardner/ls	Harrison	Warnick	Strasma	Lewis	Davis	Keppler
DATE	6/24/83	6/24/83	6/24/83		6/24	6/24	6/24/83

5711 Summerset Drive
Midland, MI 48640
April 18, 1983

PRINCIPAL STAFF	
RA	ENE
D/RA	SCS
RA	
DRP	
DRM	
DE	
DL	
OL	FLI

Mr. James Keppler, Regional Administrator
Nuclear Regulatory Commission, Region III
Office of Inspection and Enforcement
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Over the past couple of months, a man, who used to work on the Midland nuclear plant, has called me several times to give me information that he believes is very important to relay, not only to you, but to our Attorney-General Frank Kelley.

He will not provide an affidavit to the Government Accountability Project on these matters because he does not believe his anonymity can be adequately protected. He is now working for a Midland subcontractor, as I understand it.

His concern is about the many unqualified people there are at the plant site in jobs of critical importance to safety.

Since I notice in the testimony of Ron Cook, the resident inspector, his frequent mention of poor installation and even his requests to see the qualifications of workers because of poor workmanship, I believe there may be merit in these facts that I have been given over the phone or sent in the mail.

He gave me names of people he worked with who were not qualified for their assignments. They all worked for Bechtel or Bechtel subcontractors. These include: Leo Davis--no Michigan engineering registration and no field experience who worked on systems requiring engineering. He's not sure he has a degree of any kind. Dick Soderholm--no Michigan engineering registration, little field experience, worked in procurement; Clark Ash--has a degree (not sure in what), no Michigan engineering registration, little field experience, worked in procurement; Ed Entrokin--has no degree, is not registered as engineer in Michigan, field experience amounts to 2 or 3 years with Bechtel. The sub-contract department under Ed Entrokin had design authority--the balance of sub-contracts did not have design authority.

According to my informant, engineering design authority was delegated to Zack by Bechtel. Zack also did not have qualified people for design work they were doing. People without adequate training were designing duct work, or pipe hangers and brackets.

4309050111

Page Two
Mr. James Keppler
April 18, 1983

Soils work was subcontracted by Bechtel.

Also, he stated that someone by the name of Cannoni was the subcontractor for soil compaction and he was also given subcontract for part of the underpinning of sinking buildings.

He claims that all work on any construction project beyond a certain limited size must be done as a Michigan registered engineer or architect.

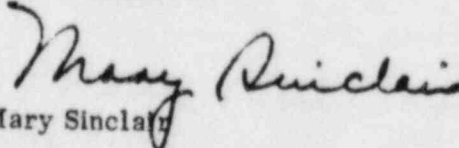
He gave me the following citation from Michigan Compiled Laws 338.551-- Architects, Engineers, Surveyors, Article 20, Act 299, Public Acts of 1980 p. 902-7, defines the role of licensed engineers and architects--does not give any exception to Federal activity. Any building structure must be designed, planned and materials and supplies inspected under direct supervision of a licensed engineer.

He told me that a very good welder quit the project recently because the scheduling was so erratic. One day he would have an apprentice assistant, the next day a journeyman. He was forced to repair continually what was done. He said the Bechtel management here was the poorest he had seen anywhere and he couldn't take it anymore.

The informant also sent me a sketch of management responsibility, rate and pay schedule of contractors for Bechtel and a copy of Article 20, Act 299, PA of 1980 on Architects, Engineers and Surveyors. These materials are enclosed.

I hope your office will investigate these matters to protect the public health and safety of the people of this area.

Yours sincerely,


Mary Sinclair

cc: Attorney-General Frank Kelley
Senator Carl Levin
Senator Don Riegler
Congressman Don Albosta

5711 Summerset Drive
Midland, MI 48640
April 18, 1983

Attorney-General Frank Kelley
525 West Ottawa
Law Building, 7th Floor
Lansing, MI 48913

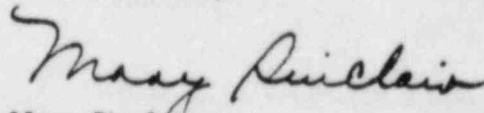
Dear Attorney-General Frank Kelley:

Enclosed is a letter to Mr. James Keppler, director of Region III of the Nuclear Regulatory Commission, in which I describe certain facts that were disclosed to me on the phone by a person who prefers to remain anonymous. He also sent certain materials and supporting items in the mail which are also enclosed.

I believe your office has the responsibility to enforce the law requiring Michigan registration of engineers, etc. responsible for design, construction and materials of construction projects.

I hope you will give this matter your attention.

Yours sincerely,


Mary Sinclair

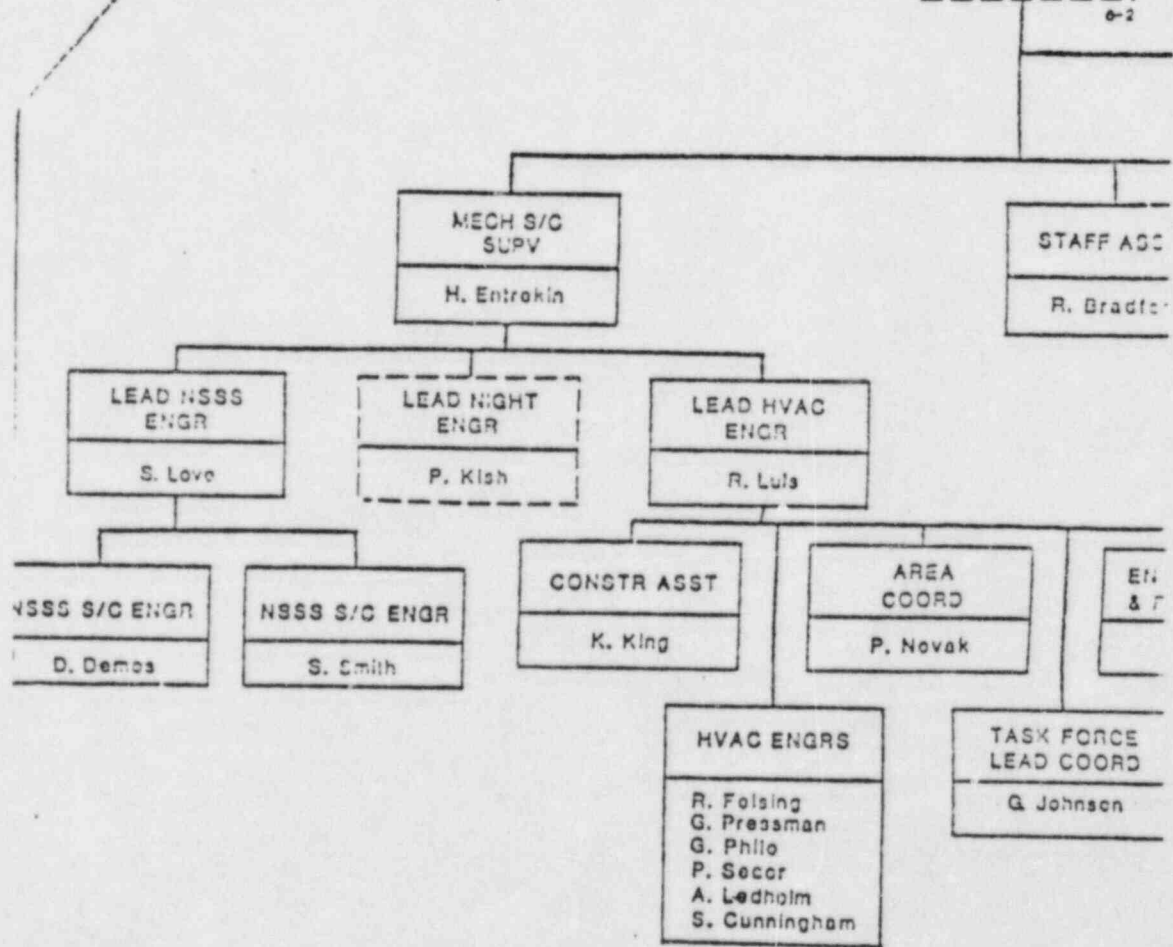
Enclosures

L. E. Davis

R. Soderholm

FIELD
SUBCONTRACT
ADMIN SUPV
R. C. Ash

6-2



NO.	DATE	CHG	REV
7220		6-2 SUBCONTRACTS	7

2. COMPENSATION

2.1 PROFESSIONAL SERVICES

Contractor shall be paid for service in accordance with the following rate schedule for all time spent on the project by professional and technical personnel of the designated classification accepted by Bechtel.

<u>Classification</u>	<u>Straight Time/Hr</u>	<u>Overtime/Hr</u>	
Principal	\$70.00	\$70.00	
Associate Principal	\$66.00	\$66.00	
Senior Associate	\$64.00	\$64.00	
Associate	\$62.00	\$62.00	
Engineering Supr.	\$60.00	\$75.00	
Senior Lead Engineer	\$58.00	\$72.50	* per diem ?
Senior Engineer	\$54.00	\$67.50	* r.t. airfare ?
Staff Engineer/	\$52.00	\$65.00	* HPC overhead !
Senior Technician Eng.	\$46.00	\$57.50	* HPC profit !
Assistant Engineer	\$42.00	\$52.50	
Senior Draftsman	\$40.00	\$50.00	
Draftsman/Technician	\$38.00	\$47.50	
Junior Draftsman	\$32.00	\$40.00	
Technical Typist/	\$22.00	\$27.50	
Engineering Aide			
Secretary	\$13.00	\$16.25	

The rates include salary, overhead, fee, benefits, vacation allowance, sick leave, holiday pay, taxes, and insurance, and all other associated manhour costs.

Specified rates and classification for each Contractor personnel assigned shall be submitted in writing to the authorized Bechtel representative. Bechtel will be notified prior to changing classification of any Contractor personnel above Senior Draftsman.

2.1.1 Contractor will only be reimbursed for work actually performed. Contractor personnel will not be reimbursed for days not worked, except as specified in paragraph 2.1.4 below, including, but not limited to, sick leave, vacations, holidays and travel time.

All work assignments by Contractor must be authorized in advance by Bechtel. Contractor will not be reimbursed for services rendered which are not authorized. Contractor will submit weekly time worked verification for acceptance by designated Bechtel Representative.

U.S. Dollar Payroll

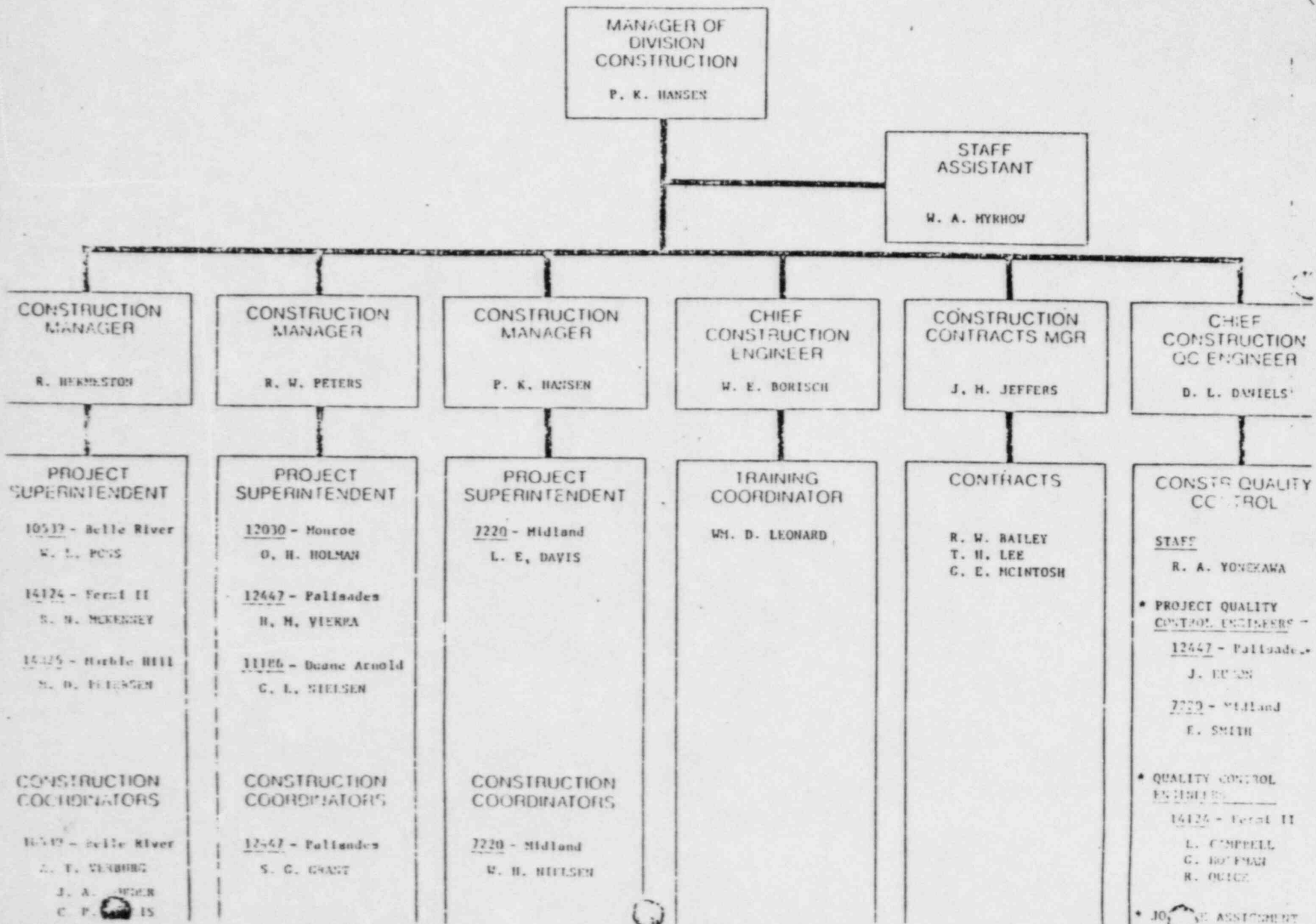
Effective: 1/3/81

Supersedes revision dated 7/5/80

Salary Grade	1st Quartile		2nd Quartile	3rd Quartile		4th Quartile
	Minimum	25%	Midpoint	75%	Maximum	
21	\$ 1,305	\$ 1,500	\$ 1,695	\$ 1,890	\$ 2,090	
22	1,460	1,680	1,895	2,115	2,335	
23	1,640	1,890	2,135	2,380	2,625	
24	1,865	2,145	2,425	2,705	2,985	
25	2,135	2,455	2,775	3,095	3,415	
26	2,440	2,810	3,175	3,540	3,905	
27	2,780	3,200	3,615	4,035	4,400	
28	3,095	3,560	4,025	4,490	4,955	
29	41,100 (3,425)	47,200 (3,938)	53,400 (4,450)	59,600 (4,967)	65,800 (5,487)	
30	45,900 (3,825)	52,800 (4,400)	59,700 (4,975)	66,600 (5,550)	73,400 (6,117)	
31	51,500 (4,292)	59,300 (4,942)	67,000 (5,584)	74,700 (6,225)	82,400 (6,857)	
32	57,500 (4,792)	65,100 (5,509)	74,700 (6,225)	83,300 (6,942)	92,000 (7,657)	

Monthly equivalents in parentheses for salary grades 29-32.

CONSTRUCTION DEPARTMENT



ARTICLE 20
ACT 200: 20 of 1999

Sec. 2001. As used in this article:

(a) "Architect" means a person who, by reason of knowledge of mathematics, the physical sciences, and the principles of architectural design, acquired by professional education and practical experience, is qualified to engage in the practice of architecture.

(b) "Firm" means a sole proprietorship, partnership, or corporation through which a person licensed under this article offers or provides a service to the public.

(c) "Land surveyor" means a person who, by reason of knowledge of law, mathematics, physical sciences, and techniques of measuring land acquired by professional education and practical experience, is qualified to engage in the practice of land surveying.

(d) "Person" means a natural person.

(e) "Person in responsible charge" means a person licensed under this article who determines technical questions of design and policy; advises the client; supervises and is in responsible charge of the work of subordinates; is the person whose professional skill and judgment are embodied in the plans, designs, plats, surveys, and advice involved in the services; and who supervises the review of material and completed phases of construction.

(f) "Practice of architecture" means professional services, such as consultation, investigation, evaluation, planning, design, or review of material and completed phases of work in construction, alteration, or repair in connection with a public or private structure, building, equipment, works, or project when the professional service requires the application of a principle of architecture or architectural design.

(g) "Practice of land surveying" means the surveying of an area for its correct determination, description, and conveyancing, or for the establishment or reestablishment of a land boundary and the plotting of land and subdivisions of land.

(h) "Practice of professional engineering" means professional services, such as consultation, investigation, evaluation, planning, design, or review of material and completed phases of work in construction, alteration, or repair in connection with a public or private utility, structure, building, machine, equipment, process, work, or project, when the professional service requires the application of engineering principles or data.

(i) "Principal" means a sole proprietor, partner, or the president, vice-president, secretary, treasurer, or director of a corporation.

(j) "Professional engineer" means a person who, by reason of knowledge of mathematics, the physical sciences, and the principles of engineering, acquired by professional education and practical experience, is qualified to engage in the practice of professional engineering.

(k) "Services" means professional service offered or provided by an architect in the practice of architecture, a professional engineer in the practice of professional engineering, or a land surveyor in the practice of land surveying.

Sec. 2002. (1) The boards of architects, of professional engineers, and of land surveyors are created.

(2) The board of architects consists of 5 architects, 1 professional engineer who is a member of the board of professional engineers, and 1 land surveyor who is a member of the board of land surveyors. Two members of the board shall represent the general public.

(3) The board of professional engineers consists of 5 professional engineers, 1 architect who is a member of the board of architects, and 1 land surveyor who is a member of the board of land surveyors. Two members of the board shall represent the general public.

(4) The board of land surveyors consists of 5 land surveyors, 1 professional engineer who is a member of the board of professional engineers, and 1 architect who is a member of the board of architects. Two members of the board shall represent the general public.

(5) Of the initial members of the board of architects, the terms of 3 of the members, including 2 of the members who are licensed architects and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed architect shall be 3 years; the term of 1 of the members who is a licensed architect shall be 2 years; and the terms of 2 of the members, including 1 of the members who is a licensed architect and 1 of the members of the general public, shall be 1 year. The term of the member who is a licensed professional engineer shall coincide with that member's term on the board of professional engineers. The term of the member who is a licensed land surveyor shall coincide with that member's term on the board of land surveyors.

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(6) Of the initial members of the board of professional engineers, the terms of 3 of the members, including 2 of the members who are licensed professional engineers and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed professional engineer shall be 3 years; the term of 1 of the members who is a licensed professional engineer and 1 of the members of the general public shall be 2 years and the term of 2 of the members, including 1 of the members who is a licensed professional engineer and 1 of the members of the general public shall be 1 year. The term of the member who is a licensed architect shall coincide with that member's term on the board of architects. The term of the member who is a licensed land surveyor shall coincide with that member's term on the board of land surveyors.

(7) Of the initial members of the board of land surveyors, the terms of 3 of the members, including 2 of the members who are licensed land surveyors and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed land surveyor shall be 3 years; the term of 1 of the members who is a licensed land surveyor shall be 2 years; and the terms of 2 of the members, including 1 of the members who is a licensed land surveyor and 1 of the members of the general public, shall be 1 year. The term of the member who is a licensed professional engineer shall coincide with that member's term on the board of professional engineers. The term of the member who is a licensed architect shall coincide with that member's term on the board of architects.

(8) A licensee who serves on more than 1 board created under this article, and who resigns, is disabled, or is removed for cause by the governor from the board under which he or she is licensed, shall no longer represent that board on any other board created under this article.

Sec. 2003. A joint meeting of the boards created by this article shall be held at least once annually at a time and place determined by the department. Two or more of the boards created by this article may meet jointly at the call of the chairperson of a board created by this article.

Sec. 2004. (1) An applicant for examination for licensure under this article shall be of good moral character and shall have had not less than 8 years of professional experience in architectural, engineering, or land surveying work satisfactory to the appropriate board, including not more than 6 years of education satisfactory to the appropriate board and shall meet the following educational requirements:

- (a) For architecture, a first professional degree or further degree in architecture. However, until July 1, 1984, a 4-year, preprofessional baccalaureate degree shall be accepted in lieu of the first professional degree.
- (b) For professional engineering, a baccalaureate degree in engineering acceptable to the board of professional engineers or a related degree with courses acceptable to the board.
- (c) For land surveying, a degree in land surveying or a related degree with land surveying courses acceptable to the board of land surveyors.

(2) An applicant meeting the appropriate requirements of subsection (1) who files an application for examination for licensure, upon payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979, as amended, being section 328.2213 of the Michigan Compiled Laws shall be granted an examination for licensure as an architect, professional engineer, or land surveyor.

(3) An examination for licensure under this article as an architect, a professional engineer, or land surveyor shall be held at least once a year at a time and place determined by the department.

(4) An applicant for examination for licensure who successfully completes studies required for the granting of a degree required by subsection (1) may take a part of the examination which tests the applicant's understanding of the theory pertaining to his or her profession. An applicant who passes that part of the examination is not required to repeat that part of the examination regardless of when the applicant takes the examination required by subsection (5).

(5) An applicant who satisfies the requirements of subsection (1) shall take the examination which tests the applicant's qualifications to practice as an architect, professional engineer, or land surveyor.

(6) An applicant for examination for licensure who fails an examination required by this section may apply for reexamination 6 months after receiving notice of his or her failure. An applicant for reexamination for licensure under this subsection shall pay the fee prescribed by section 13 of Act No. 152 of the Public Acts of 1979, as amended.

(7) Notwithstanding section 316(3), an alternative form of testing shall only be given to a person with a mental or physical handicap which tests the applicant's understanding of the theory and the applicant's qualifications to practice as an architect, professional engineer, or land surveyor as required in this section.

Sec. 2005. The department shall mail written notice to an applicant of the applicant's grades on each part of an examination. On written request by an applicant filed with the department within 30 days after notice of the applicant's grades has been mailed to the applicant, the department shall mail to the applicant within a reasonable time the comments of the board on those parts of the examination which the applicant failed to pass.

Sec. 2006. (1) An application for licensure under this article shall contain a demonstration of the applicant's education and a detailed verifiable summary of the applicant's "chronic work" and shall contain not less than 5 references, of whom 3 or more shall be licensees in the profession for which the applicant is seeking licensure who have personal knowledge of the applicant's professional experience.

(2) A license shall be issued after the applicant has passed the examination prescribed in section 2004 *b* and has paid the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979. If the department denies the issuance of a license to an applicant, the fee deposited shall be retained as an application fee.

Sec. 2007. A licensee, upon being licensed, shall obtain a seal authorized by the appropriate board and bearing the licensee's name and the legend indicating either "licensed architect", "licensed professional engineer", or "licensed land surveyor". However, a seal existing on the effective date of this article with the legend "registered architect", "registered professional engineer", or "registered land surveyor" is acceptable if a seal is required under state law. A plan, specification, plat, or report issued by a licensee shall be sealed when filed with a public authority. A document shall not be sealed after the license of the licensee named on the document has expired or is suspended or revoked unless the license is renewed, reinstated, or reissued.

Sec. 2008. (1) A plan, plat, drawing, map, and the title sheet of specifications, an addendum, bulletin, or report or, if a bound copy is submitted, the index sheets of a plan, specification, or report, if prepared by a licensee and required to be submitted to a governmental agency for approval or record, shall carry the embossed or printed seal of the person in responsible charge.

(2) If the overlapping of the professions of architecture and engineering is involved in a project, a licensed architect or licensed professional engineer who seals the plans, drawings, specifications, and reports may perform services in the field of the other practice if the services are incidental to the architectural or engineering project as a whole.

(3) A licensee shall not seal a plan, drawing, map, plat, report, specification, or other document not prepared by the licensee or under supervision of the licensee as the person in responsible charge.

Sec. 2009. A license granted under this article shall be renewed on a date determined by the department. A license issued under this article shall be renewed upon payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979 and a demonstration of continuing professional competence as shall be required and evaluated by the board.

Sec. 2010. (1) A firm may engage in the practice of architecture, professional engineering, or land surveying in this state, if not less than 2/3 of the principals of the firm are licensees.

(2) However, nonlicensed principal and the principal's firm shall apply for and receive an approval from the department to engage in the practice of architecture, professional engineering, or land surveying, if the conduct of the firm and its principals comply with rules promulgated by the department.

(3) Upon request by the department, a firm shall report to the department the names and addresses of its principals, persons in responsible charge, unlicensed principals, and any other information the department considers necessary.

(4) A firm shall employ a person in responsible charge in the field of professional service offered at each place of business in this state where a service is offered by the firm, except at a field office which provides only a review of construction.

Sec. 2011. (1) The state or a county, city, township, village, school district, or other political subdivision of this state shall not engage in the construction of a public work involving architecture or professional engineering unless all of the following requirements are met:

(a) The plans and specifications and estimates have been prepared by a licensed architect or licensed professional engineer.

(b) The review of the materials used and completed phases of construction is made under the direct supervision of a licensed architect or licensed professional engineer.

(c) Each survey of land on which the public work has been or is to be constructed is made under the supervision of a licensed land surveyor.

(2) This section does not apply to a public work for which the contemplated expenditure for the completed project is less than \$15,000.00.

Sec. 2012. The following persons are exempt from the requirements of this article:

- (a) A professional engineer employed by a railroad or other interstate corporation, whose employment and practice is confined to the property of the corporation.
- (b) A designer of a manufactured product, if the manufacturer of the product assumes responsibility for the quality of the product.
- (c) An owner doing architectural, engineering, or surveying work upon or in connection with the construction of a building on the owner's property for the owner's own use to which employees and the public are not generally to have access.
- (d) A person not licensed under this article who is planning, designing, or directing the construction of a residence building not exceeding 3,500 square feet in calculated floor area. As used in this subdivision and section 2014(c), "calculated floor area" means that portion of the total gross area, measured to the outside surfaces of exterior walls intended to be habitable, including a heater or utility room, but not including a crawl space; an unfinished and nonhabitable portion of a basement or attic; or a garage, open porch, balcony, terrace, or court.
- (e) A person who is licensed to engage in the practice of architecture, professional engineering, or land surveying in another state while temporarily in this state to present a proposal for professional services.

Sec. 2013. The department, upon application, and the payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979, as amended, shall issue a license to a person who holds an appropriate certificate of qualification or registration issued to the person by proper authority of a board of registration examiners of another state or national council acceptable to the department and the board, if the requirements for the registration of architects, professional engineers, or land surveyors under which the certificate of qualification or registration was issued are determined to be equivalent by the board. The determination shall be made by the appropriate board. A board under this article shall not issue a temporary license as provided under section 213.

Sec. 2014. A person is subject to the penalties set forth in article 6 who commits 1 of the following:

- (a) Uses the term "architect", "professional engineer", "land surveyor", or a similar term in connection with the person's name unless the person is licensed in the appropriate practice under this article.
- (b) Presenting or attempting to use as the person's own the license or seal of another.
- (c) Attempting to use an expired, suspended, or revoked license.
- (d) Using the words "architecture", "professional engineering", "land surveying", or a similar term in a firm name without authorization by the appropriate board.
- (e) Submitting to a public official of this state or a political subdivision of this state for approval, a permit or a plan for filing as a public record, a specification, a report, or a land survey which does not bear 1 or more seals of a licensee as required by this article. This subdivision does not apply to a public work costing less than \$15,000.00 or a residential building containing not more than 3,500 square feet of calculated floor area.

GOVERNMENT ACCOUNTABILITY PROJECT

Institute for Policy Studies
1901 Que Street, N.W., Washington, D.C. 20009

(202) 234-9382

July 26, 1982

The Honorable Nunzio J. Palladino
Chairman
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Chairman Palladino:

On behalf of our clients, Mr. Albert T. Howard and Ms. Sharon Marello, the Government Accountability Project ("GAP") of the Institute for Policy Studies requests that the Nuclear Regulatory Commission ("NRC") conduct a full investigation of the enclosed evidence before permitting full power operation of the LaSalle Nuclear Power Station (Unit I) in LaSalle County, Illinois. We request that the Commission's Office of Investigations ("OI") replace Region III ("RIII") in its ongoing investigation of LaSalle and the Zack Company, to which the enclosed evidence pertains.

We further request that the Commissioners direct the Office of Inspector and Auditor ("OIA") to investigate the performance of RIII's Office of Inspection and Enforcement. More specifically, we believe that RIII's oversight of LaSalle was inadequate in three areas--

- (1) failure to act for three months on serious evidence of a Quality Assurance ("QA") breakdown and possible criminal falsification at LaSalle's Heating, Ventilating and Air Conditioning ("HVAC") contractor, the Zack Company, on the eve of full power operations at LaSalle despite urgent and then-independent requests from Mr. Howard and GAP;
- (2) failure to uncover the Zack QA breakdown during its ongoing regulatory program; and
- (3) failure to honor commitments made last November to correct RIII investigative deficiencies confirmed by OIA Report, Special Inquiry re: Adequacy of IE Investigation 50-358/80-9 at the William H. Zimmer Nuclear Power Plant (August 7, 1981).

Our action is based on the investigation our organization has conducted over the past five months, from March 1982 to date, as well as on evidence Mr. Howard, Ms. Marello and other witnesses have presented to us regarding the Region III LaSalle investigation. Enclosed as Attachment 1-8 is a packet containing Mr. Howard's affidavit and 44 exhibits; Ms. Marello's affidavit; an affidavit from Mr. Charles Grant III; and six memoranda

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summarizing verification interviews conducted by our staff. The interviews confirm the personal integrity of Mr. Howard and Ms. Mareello, as well as the substance of their allegations. All witnesses except for personal references are former or current Zack employees. Our evidence directly challenges the credibility of Region III's July 19 recommendation for a full power license.

GAP is a non-profit, non-partisan public interest organization that assists federal and corporate employees who report illegal, wasteful or improper activities by their agencies or organizations. GAP also monitors governmental reforms, offers its expertise about personnel issues to Executive Branch offices and agencies, responds to Congressional requests for analysis of issues related to accountable government and disseminates significant information about problems to appropriate places within the government.

Our review of the recently issued LaSalle Report (Inspection Report No. 50-373/82-35 (July 19, 1982)) reveals more deference to utility timetables than Region III has demonstrated in the past, particularly at the Zimmer station in Moscow, Ohio. Although we have had only one week to review, analyze and study Region III's report, it clearly suffers from serious omissions. This type of investigation leaves the public less realistically assured than if no investigation had been conducted at all.

Specifically, the report ignored the evidence on Zack presented by Mr. Howard nearly three months ago, on May 3, 1982. Second, Region III totally ignored significant issues that dealt with the causes of the Quality Assurance deficiencies at LaSalle, such as retaliation and manipulation of the QA program through short-staffing, conflicts of interest, and advance warning of QA inspections.

Our review of the allegations actually covered indicates that the LaSalle investigation relied far too heavily on the utility's paperwork, while foregoing witness interviews and independent hardware tests. We discovered that Region III investigators failed to take sworn statements from key witnesses who had not already provided affidavits to GAP or the Illinois State Attorney General's office. GAP had already worked closely with some of these witnesses. Our decision not to take affidavits from these employees was a gesture of good faith toward Region III; unfortunately, it was not returned.

We also found a disturbing manipulation of the allegations by omitting key facts, thus making it easier to reject the charges. Issues presented by conscientious workers were consistently rejected on the basis of suspect utility paperwork or "independent" tests that were, in fact, controlled by the utility. Further, and most seriously, the NRC's Region III office has once again failed to independently explore the full extent of the problems at a nuclear power plant before dismissing the examples as insufficient by themselves to pose a public health and safety threat.

The Nuclear Regulatory Commission has often promised to improve the dependability and quality of its investigations; however, the flaws of the

July 26, 1982

LaSalle probe confirm that NRC probes continue to rely on the utility's good faith and paperwork. It is very clear that whenever there was a conflict between eyewitnesses and utility paperwork, the paperwork won.

Unfortunately the affidavits and evidence provided by our clients reveal that the paperwork for the LaSalle site cannot be trusted.

The LaSalle investigation represents a major setback in the NRC's outreach effort to nuclear plant employees. No longer in good conscience can we recommend to nuclear workers that they speak to the NRC without counsel present. Mr. Howard, who was speaking for the fired Zack employees, had irreversible personal damage. Although as spokesman for the group Mr. Howard went to the Regional NRC office on the first work day after the entire QA department was dismissed and talked to eight investigators, not one informed him that he and his colleagues had only 30 days to file an appeal for relief under 48 U.S.C. §5851 to the Department of Labor. As a result, their legal rights to administrative relief were sacrificed.

Region III also publicly misrepresented his disclosure in an attempt to justify its own initial inaction. This is intolerable.

I. ZACK ALLEGATIONS

Background

In the fall of 1981 the Zack Company, a Heating, Ventilating and Air Conditioning ("HVAC") contractor, hired Ms. Mareello, Mr. Howard, and a number of other individuals to establish a Quality Assurance Documentation Control office. Their assignment was to insure that the Zack Company had a Documentation Department that complied with 10 C.F.R. 50, Appendix B, the American National Standards Institute ("ANSI") codes, and the contract specifications of their various clients in nuclear business. Their specific assignment was to control the documentation -- purchase orders ("P.O.'s"), material certifications ("certs"), material traceability records ("M.T.R.") and certificates of conformance ("C.C."). This involved the monitoring of over 3000 purchase order "packages." Each package represented the proof of quality for up to thousands of items used to construct the Clinton, LaSalle or Midland nuclear power stations.

Mr. Howard was hired as the Documentation Control Room Supervisor. Ms. Mareello was a clerk. They, and the three or four other Documentation Control Room employees were allowed -- in fact assigned -- to investigate documents contained in Zack's files. Their task was to verify the accuracy, or identify the inaccuracies to the purchase order packages. This task gave them free access to the Zack files, and also placed them in a good position to observe the "paperwork trail" of Zack's nuclear documents.

In six and a half to seven months, Ms. Mareello and Mr. Howard discovered and challenged a quality assurance breakdown that leaves reliability of HVAC systems, and the overall QA programs at three nuclear plant sites in serious

question. Their experiences reflect a contractor operating for years without regard for the Atomic Energy Act, and consequently the public health and safety.

They discovered documentation that had altered specifications, some with "white out," missing certifications, purchase orders with no ASTM specifications, purchase orders changed to reflect correct quality assurance approval, and adhesive stickers with questionable authenticity, used to modify documentation and reflect the correct standards. They also uncovered top-level Zack management attempts to convince vendors -- with some success -- to provide inaccurate quality and traceability certifications after-the-fact.

Both Mr. Howard and Ms. Mareello worked in the Document Control Room at the Zack headquarters. Although they received no formalized Quality Assurance training, they, and the rest of the QA department, did become familiar with the various codes, contract specifications, and regulations that allegedly governed their work.

Unfortunately they suffered a pattern of harassment and attempted intimidation. The pressure increased as Zack strove unsuccessfully to meet unrealistic time demands imposed by Commonwealth Edition ("Com Ed"), which wanted the paperwork resolved to avoid licensing delays at its LaSalle site. The tension became so severe that Ms. Mareello was eventually hospitalized.

Last August Zack had notified the utilities of a potential nonconforming condition under 10 C.F.R. §50.55(e), due to inadequate and inaccurate quality and identification records on vendor purchases. They also attached a Corrective Action Report ("CAR") plan which outlined Zack's intention to identify, analyze and correct all the paperwork problems at the company headquarters. This CAR also outlined the steps Zack would take to insure that the proper individuals responsible for this were appropriately disciplined.

As pressure mounted to have the LaSalle nuclear plant load fuel, the QA department at Zack fell under greater pressure to close out nonconformance reports ("NCRs") that detailed the Zack QA documentation deficiencies at LaSalle. Mr. Howard refused to provide a final report to Com Ed. On March 1, Zack submitted 99 remaining NCRs to Com Ed. Zack warned it was unlikely that necessary documentation to correct deficiencies could be obtained. This frank admission did not deter the utility and NRC rush to begin operations at LaSalle. Com Ed received permission to load fuel.

On April 13 and 15, 1982 Mr. Howard, acting as a spokesman for the entire Zack Quality Assurance department, had contacted an individual in the Consumers Power Company's Midland Project Quality Assurance department. This individual had represented to Mr. Howard and other members of the department that they should feel free to bring any allegations or problems at Zack to Midland's internal grievance system. He also guaranteed them confidentiality and protection from losing their jobs.

On April 18, 19 and 20, an audit team from Consumers and the Bechtel Corporation arrived in the Chicago office. The QA department anticipated a complete

July 26, 1982

investigation and professional support for its effort. However, their anticipation was belied as naive. On April 30 the entire department was dismissed, allegedly due to an office reorganization.

On May 3, 1982, the first working day following the purge, Mr. Howard began a series of contacts with Region III. He provided specific allegations about LaSalle and to a lesser extent Midland and Clinton, evidence and his offer of full cooperation with an NRC investigation. However, nothing happened. After 2 1/2 months, when Mr. Howard and the others realized the NRC was not going to respond to their allegations, which had cost them their jobs, they took their information to the press and then to GAP.

Specific Allegations

The three affidavits, exhibits and supporting verification memoranda evidence specific allegations about Zack's QA documentation and utility oversight. Certain issues pertain to the fundamental of Zack's QA program--

1) Absence of any formal Quality Assurance Documentation Program--

Until Ms. Mareello, Mr. Howard and others were hired in the fall of 1981 to honor corrective action commitments there was no QA formal program for documents. As a result, they were in an uncontrolled state, i.e., a mess. Documents were piled on the floor. (Attachment ² 3, at 1-2; Att. 3, at 1; Att. 8, at 4-5).

2) Inadequate qualifications of personnel performing significant roles-- Individuals without any previous nuclear experience were assigned to make decisions requiring engineering judgment, as well as detailed knowledge of professional codes and legal requirements for QA documentation. They received these assignments despite protesting that they were not qualified to make such significant decisions. The qualifications deficiencies extended to the Zack auditors. (Att. 1, at 1-2, Att. 2, at 3-4; Att. 3, at 2-3; Att. 8, at 5, 11-19).

3) Missing documentation and discrepancies in welder qualifications records-- To illustrate, an October 23 Interim Report found 25 discrepancies in a partial review of welding qualifications records for the LaSalle site. (Att. 2, at 7; Att. 8, at 13).

4) Inadequate training for QA personnel-- Despite repeated requests for comprehensive training, Zack only offered informal guidance and self-study materials. To illustrate the quality of the training, Zack President Christine DeZutel and her husband were trained "in accordance with the Zack Company Quality Assurance Training Program" on the basis of one hour's instruction from a Zack executive in NRC regulations and professional QA standards. The company finally proposed a formal training program shortly

²/"Att." All references to Attachment 8 incorporate the relevant accompanying exhibits.

*Who says
discrepancy?
make
inquiries
how many?*

?

before it dismissed the entire QA documentation staff. (Att. 21, at 2; Att. 2, at 2-3; Att. 3, at 2-3; Att. 4, at 1; and Att. 8, at 5, 18-19, 24).

A second category of allegations concern incomplete Zack QA documentation--

5) Missing records due to inadequate document control-- Both unauthorized management personnel, and even the owner's dog, had access to Zack QA records and Purchase Orders. As a result, records were lost or chewed up. (Att. 1, at 3; Att. 2, at 5; and Att. 3, at 1).

6) Absence of required quality verification on documents that could be retrieved-- This ranged from missing signatures to missing required test data, specifications, and certifications to professional codes. (Att. 1, at 2-3; Att. 3, at 2; Att. 8, at 4-5, 18).

7) Lack of proper identification through compliance with material traceability requirements-- This led to problems such as lack of required traceability for some 114,000 hexheads, bolts, nuts and similar items. Similarly, certain steel beams could not be traced with certainty, although indications are that they come from Argentina. (Att. 8, at 17-18, 21-22).

clarify only

A third category of allegation concerns widespread falsification and improper modifications of Zack QA documents during the corrective action program for deficient records--

8) Improper alteration of QA records through stickers containing signatures of questionable authenticity (Att. 2, at 3; Att. 3, at 2; Att. 8, at 14-15).

9) Improper alteration of QA records through whiting-out previous information in order to create the appearance of compliance with legal requirements (Att. 1, at 2; Att. 8, at 15).

10) Improper requests by Zack management for vendors to supply unavailable information or to inaccurately upgrade quality documentation-- Some vendors, such as U.S. Steel, refused to participate in the improprieties. Other vendors cooperated to the letter of the request, even retyping the spelling errors in model certification letters supplied by Zack. Another vendor returned a blank form for Zack to fill in as needed. (Att. 2, at 7; Att. 3, at 2; Att. 8, at 16, 25-6).

A fourth category of allegations involves deficiencies in Zack's program for purchases from its Approved Vendors List--

11) Failure to distinguish between commercial and nuclear purchases on Purchase Orders-- Since items purchased for nuclear use have much stricter quality verification requirements than those purchased for commercial use, this omission led to the improper upgrading program described above. (Att. 2, at 2; Att. 8, at 18).

12) Unqualified vendors on the AVL-- This occurred due to the absence of necessary surveillance of vendor QA programs. (Att. 3, at 2-3; Att. 8, at 15-16).

13) Failure to remove unqualified vendors from the AVL-- Even if Zack determined a vendor were unqualified, that did not guarantee the vendor's removal from the AVL. For example, Zack received approximately 38 Purchase Orders from the Delta Screw Company during the period it was "removed" from the AVL. (Att. 8, at 18).

A fifth area of allegations concerns the attitude of Zack management. It was incompatible with the Quality Assurance criteria of 10 C.F.R. Part 50, Appendix B--

14) Management awareness of QA breakdown-- Zack management was painfully aware of the problem. As the company conceded, "There has been a breakdown of the quality assurance program as related to criteria /sic/ VI - Documents Control, and VII - Control of purchased material, equipment and services...." (Att. 8, at 6). The company promised reform and training to the QA staff. But the commitments were not honored. Instead, Zack management scapegoated the staff for problems created by its own neglect. (Att. 2, at 6-7; Att. 3, at 3; Att. 8, at 10, 21-5).

15) Harassment, attempted intimidation and retaliation against QA staff-- All current and former Zack employees who were contacted confirmed this allegation. The tactics included dismissal threats, severe personal abuse, accusations of petty misconduct, and eventually dismissal of the entire QA documentation staff through a pretextual reorganization. (See Att. 1-8, generally).

16) Bad faith progress reports to the utilities-- Zack disguised its misconduct through false reassurances to its utility customers. To illustrate, the company reported to Midland on a partial review of some 1,900 purchase orders. Although the review was less than half complete, the Zack President characterized it as a "total document audit." (Att. 1, at 2; Att. 2, at 3; Att. 3, at 2, Att. 8, at 6, 10, and Exhibit 43S).

17) Failure to adequately discipline those responsible for records falsification-- The company promised its utility clients to identify and take appropriate action against the guilty parties. Although the responsible executive was identified, the "appropriate disciplinary action" consisted of a paperwork demotion and additional training. (Att. 8, at 4, 6-7).

18) Surrender to unrealistic utility deadlines-- Zack was under intense pressure from its utility clients, in particular Com Ed, to rush the quality verification of its purchases. Rather than defend the integrity of its QA reform program, Zack succumbed and attempted to produce a "rush job." That is why the company pressured employees to work overtime and perform tasks for which they weren't qualified. There wasn't time to do the job properly. (When the QA staff refused to sign off on unacceptable records, management personnel did it themselves.) (Att. 1, at 3; Att. 2, at 4; Att. 3, at 1; Att. 4, at 2; Att. 8, at 7-8, 22).

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A final category of allegations involves the utilities themselves. Zack could not have persisted for years in its misconduct without utility complicity--

1920) Utility knowledge of the QA breakdown-- There can be no question that the utilities have been aware of the Zack breakdown. The company was the subject of previous requests to stop shipping nonconforming material, as well as previous severe enforcement action at Midland, whose owner Consumers Power even loaned a contract employee to help straighten out Zack's QA records deficiencies. (See Att. 2 and 8, generally). At LaSalle, Zack informed Commonwealth Edison that it could not supply adequate information to properly correct 69 of 99 QA nonconformances. (Att. 8, Exhibit 43S).

2021) Utility complicity with the ongoing breakdown-- When formally notified of Zack's miseries, the QA management for the utilities and their contractors failed to face up to their responsibilities. Instead, Com Ed pressured for a rush job in the corrective action program. At Midland, the contractor Bechtel was satisfied if it were "highly probable" that Zack ordered the correct material. The Midland QA program responded to Zack's QA effort with an effort to rewrite the QA rules. Even before the effort was completed, the Midland QA management decided that "in virtually all cases, material is acceptable or will be deemed acceptable." (Att. 8, Exhibit 29, at 3). That philosophy cannot coexist with the Atomic Energy Act. (Att. 1, at 4; Att. 2, at 4-5; Att. 3, at 2-3; Att. 8, at 9-12, 14, 20).

2122) Utility complicity with retaliation-- In desperation, Mr. Howard and another Zack QA employee, Mr. Ronald Perry, disclosed the QA deficiencies to officials at LaSalle and Midland. In each case the discussions were supposed to be confidential. In each case, the Zack employees were soon subjected to recrimination and harassment, suggesting that the confidences were not honored. In Mr. Howard's case, the entire QA staff was dismissed within two weeks of his disclosure to the Midland QA Manager.

2233) Inaccurate public denials by utilities of the Zack deficiencies-- To illustrate, a Commonwealth Edison spokesman stated in a Chicago television interview that the Zack records were reviewed thoroughly by its Architect/Engineer Sargent and Lundy. In fact, an internal January 1982 Surveillance Report at LaSalle revealed Sargent and Lundy had--

...deleted the requirements for submitting on site contractor documentation (such as Zack's) to S & L for review. This review is now the responsibility of the Zack Company.... Based on this change, S & L's letter accepting Zack's documentation is no longer required.

(Att. 8, at 11).

Contrary to the conclusions of the implicated organizations, the deficiencies summarized above are too serious to ignore or even to glance at superficially. As a Zack report concluded, only 94 of 374 material packages sent to LaSalle were correct and acceptable. Nine were judged "No Good for LaSalle." (Emphasis in original.) (Att. 8, at 7). In some cases, it is too late for the

vendors to supply verification information on purchases made in 1978 or earlier. The records simply aren't retained that long. (Att. 1, at 2).

Nor can the NRC accept Zack's work "as is" and permit any plant to operate with quality in an indeterminate state. As RIII Administrator James Keppler stated with respect to the Zimmer station, the utility would have to "rip out" and replace critical components that lack adequate quality records. ("On-Time Start-Up for Zimmer Plant Still Doubted by NRC Official," The Cincinnati Enquirer, p. D-5 (June 30, 1982). To illustrate the impact at LaSalle, it would magnify the danger and expense to rip out already installed items after the plant begins operations.

II. INADEQUATE NRC INVESTIGATIVE OVERSIGHT

Background

On December 8, 1980, on behalf of Mr. Thomas Applegate, GAP charged that a RIII investigation violated basic investigative standards through failure to speak with relevant witnesses; failure to take affidavits from key witnesses; excessive reliance on utility paperwork to resolve allegations instead of conducting necessary independent laboratory tests on the hardware; failure to investigate sufficiently to determine the causes of confirmed inadequacies; inaccurately summarizing employee allegations, with the effect of shrinking the allegations into insignificance; and on-balance exonerations despite confirmation of specific problems, before learning the full scope of the deficiencies.

Last November 18, OIA released its August 7 report, which backed GAP's charges.

In an October 8, 1981 memorandum to Chairman Palladino, Office of Inspector and Auditor (OIA) Director James Cummings observed that the probe Applegate and GAP challenged "did not satisfy...generally accepted investigative standards of other Government agencies.... Fundamentals basic to all investigations were simply not observed in this instance." Cummings cited inadequate documentation highlighted by the total absence of interview reports, as well as the failure to pursue obvious leads. He surmised that serious quality assurance welding problems the NRC uncovered last summer might have been exposed years ago if IE probes had been "sufficiently comprehensive to identify this issue in a timely manner."

In a November 16, 1981 letter to Congressman Morris K. Udall (D.-Ariz.), Chairman of the House Energy and Environment Subcommittee, you backed the OIA criticisms. You concluded that the shortcomings in the Zimmer investigation "reveal a generic problem" with IE oversight. You pledged to consider the "necessary internal reforms" for NRC probes to reach a level "consistent with fundamental standards that govern investigations by any agency."

In November Congressional testimony, NRC Executive Director for Operations William Dircks reaffirmed the commitment and pledged to deemphasize reliance

on utility paperwork while increasing reliance on witnesses and even a new NRC mobile laboratory testing unit.

With respect to the LaSalle and Zack allegations, RIII failed to honor this pledge.

To illustrate, the NRC response to the Zack allegations at LaSalle was reluctant, at best. On June 2, 1982 GAP passed along the allegation of a vindicated Zack whistleblower from Midland that a Zack supervisor had confirmed the same abuses at LaSalle. The whistleblower, Mr. Dean Dartey, complained that RIII had refused to investigate his allegations due to lack of specificity. Had RIII followed its normal practice of checking deficient purchase orders at one site that had also been sent to other utilities (see, e.g., IE Rep. No. 50-356/81-13), the NRC would have learned that illegalities in Zack-supplied Midland purchases were repeated at LaSalle. (Att. 5).

Similarly, GAP made three attempts to convince RIII to pursue evidence of misconduct by Zack at LaSalle. Mr. Howard made another half dozen attempts to convince RIII to investigate his May 3, 1982 disclosure, and evidence, all without success.

In a July 19, 1982 letter to Com Ed, Administrator James Keppler rationalized the omission by stating the Howard allegations applied primarily to LaSalle and had been deemed too general by the staff. As Mr. Howard rebutted:

The NRC description in its LaSalle report of our meeting is absolutely false. I spoke in great detail and said my findings applied to all three sites. I emphasized problems at LaSalle more than Midland. I left my records with the staff that day, and more the next day.

Similarly, the July 19, 1982 RIII investigative report on LaSalle (IE Report No. 50-373/82-35) bears striking similarities to the Zimmer effort rejected last year at OIA. The only major difference is that this year RIII is talking to more witnesses before it relies on utility paperwork to reject their charges out of hand. That is particularly inappropriate when the same investigative report found falsification of paperwork on-site, a finding further confirmed by massive amounts of falsified Zack records relied on at LaSalle.

Specifically, GAP charged that RIII--

- **failed to take sworn statements from witnesses who had not already provided affidavits to GAP;
- **totally ignored issues that dealt with the causes of QA deficiencies at LaSalle, such as retaliation, fear of which prevented almost half of witnesses contacted from speaking to the NRC; and manipulation of the QA program through short-staffing, conflicts of interest, and advance warnings of QA inspections;

July 26, 1982

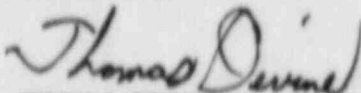
- **redefined the issues it did cover by omitting key facts, such as the location of alleged deficiencies, making it easier to reject the charges;
- **rejected witnesses' allegations on the basis of "independent" tests in fact controlled by the utility, as well as suspect paperwork;
- **manipulated the evidence by failing to include key facts in the report -- such as its finding that approximately half of reinforcement bars were damaged -- while concluding the plant is safe;
- **looked at woefully inadequate test samples on site, such as reinforcement bars on 9 drawings out of over 7000 relevant documents, or three mortar cores when literally tens of thousands of mortar blocks were suspect; and
- **failed to independently learn the full extent of problems that were confirmed, before it dismissed those examples as insufficient by themselves to pose a public safety threat.

The differences between old and new NRC investigations are cosmetic, at best.

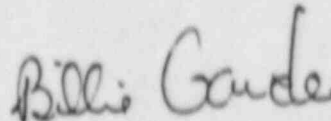
In short, the RIII investigative report on LaSalle was a final opportunity to clear up serious safety questions before the plant began operation. The report failed to answer the questions adequately at a critical moment. We are not contending that the LaSalle plant is unsafe. On the basis of this report, however, the Commission cannot reasonably assure the public that it is. As a result, Region III's Office of Inspection and Enforcement should be replaced in the ongoing investigative effort on LaSalle and Zack. OIA should investigate RIII's actions in permitting the situation to develop this far. Most significantly, the rush to begin operations at LaSalle should be halted until all the safety issues can be investigated thoroughly and resolved with realistic confidence.

Our request for this drastic action is not intended as an attack on individual RIII investigators, or Regional Administrator James Keppler. Mr. Keppler has attempted to upgrade investigative techniques. He also has taken the lead in tough public statements to improve utility QA efforts. Unfortunately, the performance has not matched the promises or the rhetoric. The Commission must take strong action to uphold its regulatory mandate and to honor its public commitments.

Sincerely,



THOMAS DEVINE
Legal Director



BILLE GARDE
Director, Citizens Clinic for
Accountable Government

Enclosures

TD/BG/my

SPECIFIC GAP ALLEGATIONS MADE REGARDING

THE ZACK COMPANY

1. Absence of any formal Quality Assurance Documentation Program
- / 2. Inadequate qualifications of personnel performing significant roles
3. Missing documentation and discrepancies in welder qualifications records
- / 4. Inadequate training for QA personnel
5. Missing records due to inadequate document control
6. Absence of required quality verification on documents that could be retrieved
7. Lack of proper identification through compliance with material traceability requirements
- / 8. Improper alteration of QA records through stickers containing signatures of questionable authenticity
9. Improper alteration of QA records through whiting-out previous information in order to create the appearance of compliance with legal requirements
10. Improper requests by Zack management for vendors to supply unavailable information or to inaccurately upgrade quality documentation
- / 11. Failure to distinguish between commercial and nuclear purchases on Purchase Orders
- / 12. Unqualified vendors on the AVL
- / 13. Failure to remove unqualified vendors from the AVL
14. Management awareness of QA breakdown
15. Harassment, attempted intimidation and retaliation against QA staff
16. Bad faith progress reports to the utilities
17. Failure to adequately discipline those responsible for records falsification
18. Surrender to unrealistic utility deadlines
- / 19. Utility knowledge of the QA breakdown
20. Utility complicity with the ongoing breakdown
- 21. Utility complicity with retaliation
22. ~~Inaccurate public denials by utilities of the Zack deficiencies~~

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Consumers
Power
Company

Howell
Suitable for PDR?
-mad

James W Cook
Vice President, Midland Project

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June 30, 1980

GF

Mr J G Keppler, Regional Director
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MIDLAND NUCLEAR PLANT - RESUMPTION OF
SAFETY-RELATED WORK BY THE ZACK COMPANY
FILE: 0.4.2 SERIAL: 9267

Reference: Letter J G Keppler to S H Howell, dated May 22, 1980

This letter responds to the two actions required by the NRC in the referenced letter prior to the resumption of work by The Zack Company.

Enclosure 1 outlines the complete program for the resumption of safety-related work activities by The Zack Company. The program describes actions that have been or are being taken by Consumers Power Company, Bechtel Power Corporation and The Zack Company. Commitment dates are identified for milestone activities.

Enclosure 2 describes the various methods utilized to cause management to be aware of site problems and certain enhancements to the procedure regarding the issuance of a "stop work."

We are available for further discussions with the NRC on the resumption of activities by The Zack Company. We request that a meeting or telephone discussion of these matters be held prior to mid-July.

James W. Cook

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PROGRAM PLAN FOR RESUMPTION OF
SAFETY-RELATED WORK BY THE ZACK COMPANY

I. PROGRAM EVALUATION

Consumers Power Company and Bechtel Power Corporation (Bechtel) in response to previously identified concerns and the results of the NRC investigation, undertook a comprehensive QA/QC program review of The Zack Company. The purpose of the review was to ensure that all aspects of the Zack quality program were included in the current remedial program. Thus, when the "stop work" is finally lifted, there will be full confidence that no additional problems have been overlooked.

The program review by Consumers Power and Bechtel consisted of the following:

- A. The Zack Company QA Manual and Quality Control Procedures (QCPs) were reviewed for adequacy and clarity. Comments generated are being addressed by Zack through procedural revisions.
- B. Bechtel Material and Quality Services (M&QS) has reviewed Zack welding procedures. The procedures are being rewritten and requalified and previous welding evaluated for adequacy.
- C. The Zack Chicago facility was audited by a joint Consumers Power/Bechtel audit team. The results of this audit are being addressed by Zack.
- D. Implementation of the QCPs in all areas has been verified. Discrepancies were identified and additional QCP comments generated.
- E. Bechtel Specification M-151A (HVAC Seismic Class I Equipment and Ductwork Installation) was reviewed and revised in the area of code references for welding to clearly indicate the applicable codes.
- F. All NRC findings were included for corrective action. Additional NRC items were identified or clarified subsequent to the March NRC investigations on site.

In addition to the above comprehensive program review by Consumers Power and Bechtel, The Zack Company conducted its own internal program reviews.

Significant corrective actions had previously been initiated as a result of Consumers Power and Bechtel involvement in Zack quality activities. These corrective actions were initiated prior to the NRC investigation, and included a change in the top production and Quality Control management positions at the job site. Another action was to expand the Zack QC manning levels. The positive effect of these actions and others had not been fully realized when the NRC investigation was initiated.

II. PROGRAMMATIC CHANGES BY THE ZACK COMPANY

The Zack Company has responded to the identified concerns by providing a re-structured QA program that provides well defined responsibilities and actions. This effort centered primarily on rewriting the Quality Control Procedures (QCPs) which are the mechanism for implementing the QA program.

The previous forty-one (41) QCPs have been reviewed in depth and consolidated. The result of this review is that there will be fourteen* Field Quality Control Procedures (FQCPs) for the site, ten* Plant Quality Control Procedures (PQCPs) for the Chicago facility, and seven Welding Procedure Specifications (WPSs) for use at the site and at the Chicago facility. These procedures are as detailed below:

Field Quality Control Procedures

- MB-FQCP-1 Requisition/Receipt Inspection
- MB-FQCP-2 Storage & Maintenance
- MB-FQCP-3 Field Fabrication
- MB-FQCP-4 Rework and Repair
- MB-FQCP-5 Installation
- MB-FQCP-6 Weld Filler Metal Control
- MB-FQCP-7 Document Control
- MB-FQCP-8 NCR
- MB-FQCP-9 Testing
- MB-FQCP-10 Calibration
- MB-FQCP-11 Training, Certification & Evaluation of Quality Control Inspectors
- MB-FQCP-12 Anchor Bolt Installation/Inspection
- MB-FQCP-13 Painting
- MB-FQCP-14 Hold

Plant Quality Control Procedures

- PQCP-1 Receiving Inspection
- PQCP-3 Fabrication
- PQCP-6 Weld Rod Control
- PQCP-7 Document Control
- PQCP-8 Nonconformance
- PQCP-9 Testing
- PQCP-10 Calibration
- PQCP-11 Training
- PQCP-13 Painting (Coating)
- PQCP-14 Hold

*This figure is the number of procedures as provided by Zack. It is noted that, pending completion of the review of the procedures by Consumers Power and Bechtel, the need for additional or fewer procedures may be identified.

Weld Procedure Specifications

WPS-1	Carbon Steel - GMAW
WPS-2	Carbon Steel - SMAW
WPS-3	Stainless Steel - GMAW
WPS-4	Stainless Steel - SMAW
WPS-5	Silicon Bronze - Arc Brazing
WPS-6	Silicon Bronze - GMAW
WPS-7	Qualification/Certification of Welders

All of the above procedures are being reviewed and approved by Consumers Power and Bechtel. Training of cognizant personnel will be conducted prior to lifting of the Stop Work.

The Zack Company Quality Assurance Manual will be revised to reflect programmatic changes made as a result of the identified concerns. This manual will be reviewed and approved by CP Co and Bechtel Power Corporation. The manual has been submitted with review and approvals of CP Co and Bechtel to be accomplished prior to lifting the Stop Work on Installation activities.

III. CORRECTIVE ACTION

As a result of the Consumers Power/Bechtel review of the complete Zack Company Program at both the site and the Chicago facility, discrepancies were identified and evaluated for specific part corrective actions. These items include all outstanding findings against Zack. Each item has a commitment date established and is being tracked through a listing that has been prepared and is available for NRC review. The duration of these actions vary from immediate action, such as the scrapping of an improperly fabricated and documented turning vane, to actions which, due to craft availability and schedule coordination with the prime contractor, will require work through mid-November of 1980 to completely resolve. An example is the reinspection of welds, and the subsequent rework or scrapping of any component as required. As many of the Zack open items require repairs to upgrade components to an acceptable condition, the lifting of the Stop Work will be required in order to complete the part corrective actions.

The adequacy of previous work is being assessed through reinspections that are being accomplished in response to identified discrepancies. These reinspections include duct, hangers and equipment installation. Additionally, Bechtel Engineering is dispositioning the effect on past work of the weld procedure qualification anomalies discovered as part of the overall review.

The following is a summary and schedule of the corrective action both underway and to be taken:

A. Items not related to the lifting of Stop Work:

1. The completion of 22 open item part corrective actions to date has been accomplished. These items involved scrapping of material and the forwarding of certifications from the Chicago facility to the site records.

2. Twenty-six additional open items will be closable in the part corrective action areas without a lifting of Stop Work. These items concern the review of material certifications and the corrections of QC documentation (for example, transposing welder IDs from a component onto the Traveller).
3. Also included in this category is the closure of the audit findings at the Chicago facility, and approval of all the revised PQCPs.

B. Corrective action required prior to lifting the Stop Work:

1. All PQCPs and WPS 1, 2 and 7 will be reviewed and approved. The revised QA manual will be reviewed and approved by Consumers Power and Bechtel.
2. All process corrective action will be complete for the Quality Control personnel within two weeks after procedure review and approval is completed. The main point of the process corrective actions is the training and respective certification of the QC personnel to assure their proficiency in executing the new quality program.
3. Site production personnel will be trained in the procedural requirements of the Quality Program when they are assigned to work in the safety-related areas. Training will be conducted prior to the lifting of the Stop Work for those personnel who will be doing the initial safety-related work.
4. To date, ten open items have process corrective action complete, where retraining was conducted under the requirements of the existing procedures. These items were in the areas of weld filler metal control and its documentation, of which the requirements are basically the same under the new Quality Program.
5. The present estimated date for completion of the corrective action required prior to lifting the Stop Work is on or about July 15, 1980.

C. Open items requiring a lifting of Stop Work:

1. Mid-November 1980 closure date is established for closing out Consumers Power NCRs M-01-4-9-057, 083, 087, which requires a 100% reinspection of specific welds due to weld process and weld acceptance problems noted in mid-1979. As the upgrading of welds and the methods utilized to attain acceptability requires Bechtel Engineering input, Consumers Power/Bechtel review of these upgrading activities and the coordination of the repairs with the other plant construction activities by the prime contractor, the duration of these actions is considered realistic.
2. Certain other activities require 12 weeks after lifting of the Stop Work to be completed. These activities involve the verification of material control identification markings on items installed. These verification

requirements will parallel the weld reinspection activities in Item C.1 above. As these activities will require either removal or a use-as-is disposition, the duration for completion will be slightly less than that required for the possible weld rework activity.

3. Another group of corrective action activities require two to four weeks after lifting of Stop Work. The bulk of these items involve inspections presently in progress and concern comparing design details to actual installed configurations. As the amount of discrepancies is considered to be isolated cases only and all rework, based upon existing data, will require three weeks to complete. Also, scoped in this duration is the upgrading of specific open items noted by the NRC. As all information concerning the problem has been identified, these items require a relatively short amount of time to upgrade to acceptable status, and two weeks is considered reasonable. These items include:
 - a. Hanger configuration.
 - b. Hanger identification numbers.
 - c. Weld appearance problems.
 - d. Welder IDs which are missing from the hanger, but are traceable.
 - e. Removal of parts which lack proper documentation.
 - f. Missing control number IDs on specific hanger subcomponents.

NOTE: The above schedules are contingent on ability to reman the work force including accomplishing all required training.

IV. VERIFICATION ACTIVITY BY CONSUMERS POWER AND BECHTEL

In order to assure that safety-related activities performed by Zack Company are performed as required, the following project commitments will be implemented:

- A. Bechtel Quality Control will have two men performing full time surveillance inspection in accordance with the Bechtel Quality Control subcontractor surveillance program.
- B. When Q work resumes in the Zack Chicaco facility, the Supplier Quality Representative status will be upgraded from a Level 3 to Level 4 which is a full residency.
- C. Consumers Power Midland Project Quality Assurance will assign the equivalent of one man full time on Zack. This person (or persons) will perform over-inspections, conduct audits and will review Zack activities to assure compliance with, and the viability of, the program. A heavy emphasis will be placed on the overinspection activity.

- D. Consumers Power is contracting with an outside inspection agency to provide additional inspection personnel to cover the commencement of the Zack work activities. The personnel would be individuals specifically qualified in the type activities associated with HVAC installation. The additional inspection personnel would remain on the job until such time as we have concluded that the Zack inspection activities are effective.
- E. A full scope audit of Zack activities will be initiated approximately 90 days of the lifting of the Stop Work. This audit will include the Midland site and the Chicago facility.
- F. Consumers Power Midland Project Quality Assurance will verify completion of part (hardware) corrective action on discrepancies identified previously. Additionally, specific training commitments will be verified

The above commitments represent a high verification activity level based on the ratio of overviews to the number of Zack QC inspectors located at Midland (8) and in the Chicago facility (2). The above commitments will remain in effect pending further assessments of the Zack QC inspection effort. A review will be made of the overall Zack performance in conjunction with the full scope audit to be carried out 90 days after the Stop Work is lifted. Based on the audit findings and data to be developed regarding Zack's inspection effectiveness, the degree of overview may be reduced to levels consistent with the rest of the project. This reduction will not take place until Consumers Power and Bechtel are convinced that Zack has demonstrated satisfactory performance. The NRC will be informed of our findings and actions.

V. RESUMPTION OF WORK ACTIVITIES

Based on the completion of the requisite action, it is expected that Zack could begin work on or about July 15, 1980. For this initial, limited work, a specific scope of work will be identified. Specific approved procedures involved would be identified and training in the procedures complete. The work would be subject to the Consumers Power/Bechtel verification activity described in IV above.

Limited work that is performed will be evaluated and, if an acceptable level of confidence is attained, then full production can resume. It is expected this will happen on or about August 1, 1980.

The above program is contingent upon NRC concurrence. Review by and any necessary informational meetings with the NRC would have to be completed prior to lifting the Stop Work.

JWC

6/30/80

Midland Project Stop Work Procedure
and Management Awareness of Site Problems

Management Involvement

Consumers Power Company management is made aware of quality problems at the site through a Quarterly Quality Assurance Management Meeting, through the information in the monthly activities report and, as part of the recent project reorganization, through the biweekly meetings with Mr J D Selby, the Company's Chief Executive. The Bechtel Project Manager is now invited to the Midland QA Quarterly Meetings. In addition, there is a monthly Project Management Meeting between Consumers Power and Bechtel. This meeting is attended by the key project management individuals up through the Vice President-Midland Project for Consumers Power and up through the Project Manager for Bechtel.

Enhancement to Stop Work Procedure

In order to better assess the need for a Stop Work, the following changes, which will be effective July 1, 1980 have been made to the Stop Work Procedure:

The conditions under which Stop Work consideration shall be made have been expanded to include cases for which there is evidence that an activity is not under control in addition to the previous requirement to stop work when the requirements for an activity would not be met. The need to evaluate whether activities are out of control is triggered by any of the following occurrences: repetitive nonconformances in the same performance area for principal suppliers or site subcontractors as noted by the review of nonconformance reports (broad definition), when the need for an MCARR is determined, or when the quality tracking graphs from the Trend Program demonstrate an increase in occurrence rate which exceeds the four-month trailing average (which is the average of the latest four-month deficiency rates).

To support the above, Consumers Power will begin a review of all Trend Reports from the site making an assessment as to whether conditions described in those Trend Reports warrant stop work action to be taken. The results of that assessment will be reported in the monthly QA activities report. By the time the Stop Work Order against Zack is lifted, Deviation Reports written by Bechtel Quality Control and Nonconformance Reports written by Zack will be factored into that Trend Report. In the future, any new major subcontractor activities will also be included in the Trend Program as an individual performance area.

JWC
6/30/80



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

NOBELIUS

MAY 22 1980

Docket No. 50-329
Docket No. 50-330

Consumers Power Company
ATTN: Mr. Stephen H. Howell
Vice President
1945 West Parnall Road
Jackson, MI 49201

Gentlemen:

This refers to the meeting conducted at our offices in Glen Ellyn, Illinois, by Mr. Keppler and others of this office on May 2, 1980, for the purpose of discussing the Midland Reactor Vessel holddown anchor bolt failures and our findings relating to the heating and ventilation installation work performed by Zack Company for the Midland project. The enclosed copy of the report of the meeting identifies areas discussed.

Based on our understanding of the discussions held at our Region III office, you will provide a written program dealing with the corrective action program for the Zack Company as discussed in Details Section 2b, you will review and revise, as necessary, your written program for adverse trends and work stoppage as discussed in Details Section 2c, and you will review your files for instances where equipment was purchased without benefit of in process source inspection and where files reflect that potential problems were indicated in correspondence with the Vendor.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed inspection report will be placed in the NRC's Public Document Room, except as follows. If this report contains information that you or your contractors believe to be proprietary, you must apply in writing to this office, within twenty days of your receipt of this letter, to withhold such information from public disclosure. The application must include a full statement of the reasons for which the information is considered proprietary, and should be prepared so that proprietary information identified in the application is contained in an enclosure to the application.

8006300139

Consumers Power Company

- 2 -

MAY 22 1980

We will gladly discuss any questions you have concerning this meeting.

Sincerely,

James G. Keppler
Director

Enclosure: IE Inspection
Reports No. 50-329/80-14
and No. 50-330/80-15

cc w/encl:
Central Files
Reproduction Unit NRC 20b
PDR
Local PDR
NSIC
TIC
Ronald Callen, Michigan Public
Service Commission
Myron M. Cherry, Chicago

RIII

Knop/km
5/20/80

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RIII

Fiorelli

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Cook

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Vandel

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Nordhaus

RIII

Stalder

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

REGION III

Report No. 50-329/80-14; 50-330/80-15

Docket No. 50-329; 50-330

License No. CFFR-81; CFFR-82

Licensee: Consumers Power Company
1945 West Parnall Road
Jackson, MI 49201

Facility Name: Midland Nuclear Power Plant, Units 1 and 2

Meeting At: Region III NRC Office, Glen Ellyn, Illinois

Meeting Conducted: May 2, 1980

Prepared By: R. C. Knop

RC Knop

5-21-80

Approved By: G. Fiorelli, Chief
Reactor Construction and
Engineering Support Branch

G. Fiorelli

5/21/80

Meeting Summary

Meeting on October 25, 1979 (Report No. 50-329/80-14; 50-330/80-15)

Meeting Subject: Discussion of the failed reactor vessel holddown anchor bolts and RIII findings of allegations relating to the heating and ventilation installation work performed by the Zack Company for the Midland project.

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DETAILS

1. Meeting Attendees

Consumers Power Company

S. H. Howell, Senior Vice President
J. W. Cook, Vice President - Midland Project
W. R. Bird, Manager - Midland QA
D. R. Keating, QA Group Supervisor
E. W. Slager, Section Head-Materials
J. L. Wood, Project QA Services

Bechtel

J. A. Rutgers, Project Manager
J. R. Barbee, Supervisor, Codes and Standards
L. A. Dreisback, Project QA Engineer
M. O. Elgaaly, Project Engineering

Zack Company

M. E. D'Haem, QC Manager
C. L. Eichstaedt, Jr., VP/Operations Manager

NRC

J. G. Keppler, Director, RIII-I&E
C. E. Norelius, Assistant to the Director
C. Fiorelli, Chief, Reactor Construction and Engineering Support Branch
D. Danielson, Chief, Engineering Support Section 2
R. C. Knop, Chief, Projects Section 1
R. J. Cook, Resident Inspector, Midland
C. M. Erb, Reactor Inspector
J. E. Foster, Investigator
E. W. K. Lee, Reactor Inspector
C. H. Weil, Investigator

2. Meeting Details

A meeting was held in the NRC Region III office in Glen Ellyn, Illinois to discuss the Midland Unit 1 reactor vessel holddown anchor bolt problem and our investigation of allegations relating to the heating and ventilation installation work performed by Zack Company for the Midland project. Consumers Power Company also described what organization changes have been made and/or are contemplated to centralize control of activities associated with the Midland project.

a. Reactor Vessel Holddown Anchor Bolt Failures

RIII personnel described their findings of investigation conducted at the Midland Site, Consumers Power Company Corporate Offices,

Bechtel Corporate Offices, Southern Bolt and Fastener Corporation, Mississippi Valley Structural Steel Company and J. W. Rex Company.

These investigations concluded that the reactor vessel holddown anchor bolts were rejectable for their intended purpose due to poor bolt material selection and heat treating processes. These problems resulted in bolts that have high notch sensitivity due to extreme high surface hardness.

The licensee presented findings which included past history of the bolts, engineering findings of laboratory testing of the failed bolts and engineering plans for possible design modifications that would reduce the stress on the bolts.

The NRC stated that any modifications where the bolts were not used in their original intended design would have to be reviewed by NRR. Consumers Power Co. acknowledged this and requested that a meeting be set up in the near future to discuss technical details associated with proposed alternatives.

The NRC stated that RIII findings would be presented in a separate inspection report in the near future.

b. Investigation of Heating and Ventilating Contractor

RIII personnel discussed their findings resulting from allegations received that heating and ventilation work was not being done in accordance with regulatory requirements at the Midland site. Numerous examples of failure to maintain material control and traceability were found. A number of procedural violations of the Consumers Power Company and Zack QA programs were also noted.

The NRC noted that, while Consumers Power Company and Bechtel had already identified a number of these problems with Zack Co. and had instituted a number of programs for corrective actions, these actions were insufficient to preclude recurring failures to meet regulatory requirements. Consumers Power Company discussed a program for correcting problems identified by themselves and the NRC. After some discussion, the NRC requested that Consumers Power Company provide a written program that would address the corrective actions that would be taken to remedy and preclude repetition of the problems.

The NRC stated that the findings of the investigation of the Zack Co. would be the subject of a separate report and the enforcement action to be taken by the NRC was being reviewed.

c. General

The NRC also requested that the licensee review and revise as necessary their QA program for determining severity of adverse

trends, for providing management assessment of those trends, for providing qualitative defined thresholds for required corrective actions including work stoppage, for determining root causes and for providing effective actions to correct past problems and to preclude future problems.

Further, the NRC requested that the licensee review their files to determine if other items were purchased in which there was no inprocess source inspection and the files indicate that the manufacturer had difficulty in meeting the purchase specifications, such as had occurred during manufacture of the reactor vessel holddown anchor bolts. The results of this review is to be made available to our inspectors.

d. Consumers Power Company - Midland Reorganization

Consumers Power Company discussed their revised organization to centralize control of the Midland project. Mr. J. W. Cook was introduced as the Vice President for the Midland project. A discussion was held of a proposed reorganization of the QA organization.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 9, 1983

Docket Nos.: 50-329 OM, OL
50-330 OM, OL

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PRINCIPAL STAFF	
RA	SHF
D/RA	SCS/MSB
A/RA	PAO
OPRP	ISLO
ORRA	AC
ER/ISO	
DE	
ML	
OL	FILE

Danielson
For use as necessary in the Zack effort.

Lee 6/17

MEMORANDUM FOR: The Atomic Safety and Licensing Board for the Midland Plant, Units 1 and 2

FROM: Thomas M. Novak, Assistant Director for Licensing Division of Licensing

SUBJECT: BOARD NOTIFICATION - ZACK REPORT ON WELDER RECORD DISCREPANCIES (83-79)

This information is provided in accordance with the present NRC procedures regarding Board Notifications.

The enclosed Zack report constitutes a followup item to BN 82-94, "Zack Part 21 Report on Welder Record Discrepancies." BN 82-94 indicated that Zack would be investigating a potential 10 CFR 21 reportable deficiency regarding accuracy of welder records. The enclosed report documents Zack's investigation and subsequent decision that this item does not constitute a 10 CFR 21 deficiency.

Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosure:
Zack Report

cc: See next page

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JUN 17 1983

DISTRIBUTION LIST FOR BOARD NOTIFICATION

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Docket Nos. 50-329/330

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MIDLAND (For BNs)

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Warricks -
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