

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
ARIZONA PUBLIC SERVICE	)	
COMPANY, et al.	)	Docket Nos. STN 50-528
	)	STN 50-529
(Palo Verde Nuclear Generating	)	STN 50-530
Station, Units 1, 2 and 3)	)	

AFFIDAVIT

I, Robert D. Gunderson, being duly sworn, do depose and say:

1. I am 39 years of age, and live with my wife in Mesa, Arizona. We have two children, ages 18 and 19.

2. I am a journeyman electrician, and have special proficiency in high-voltage cable splicing, stress splicing, welding, electrical maintenance, establishing cable tray and cable tray supports, grounding grid pads and installing buse tools. I have over 19 years of direct work experience as an electrician and have worked for three years in nuclear power-houses.

3. From April 1980 to March 1982 I worked as an electrician employed by the Bechtel Power Corporation at the Palo Verde Nuclear Generating Station. My responsibilities during that time included high-voltage cable splicing and stress splicing, and high-voltage testing.

4. As an electrician I saw much electrical work completed on the shutdown safety systems which was not done according to

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PDR FOIA  
BERNABE83-A-9 PDR

-2-

specifications, and which I believe may endanger the safe operation of the shutdown systems of the plant.

5. For example, 2200 Scotch fill was filled in the emergency pumps to the cooling tower, the high-pressure safety injection (HPSI) pumps and the low-pressure safety injection (LPSI) pumps located in the auxiliary control building, elevation 40, and in the circulating pumps functioning for the turbines. Scotch fill 2200 rated at 600 volts was used on 4160 volt motors and 13,800 volt motors.

6. I also saw that one-bolt lugs, rated only for 45 to 65 amps, were crimped on a line that runs on 120 amps with surge lines using 480 amps. Two-bolt lugs should have been used but Bechtel often did not have the equipment to provide the correct two-bolt lugs. These improper lugs were placed on the emergency pumps at the cooling tower, the LPSI and HPSI pumps used to flood the reactor core in the case of a serious accident, the circulating pumps for the turbines, and the spray pond pumps, both on the "a" and "b" sides. These lugs cannot tolerate a 480-amp surge and may melt in the event of an accident, thus making it impossible to activate many of the most important safety systems in the event of a serious LOCA.

*No such pumps*  
*Non safety related*  
*(safety related)* *(2 and 0 from)*

7. The raycam <sup>ray chem</sup> splicing kit is not adequate to splice under the very hot, arid conditions in which it must be used at Palo Verde.

8. I often have seen 300-psi (pounds per square inch) rod used on 800-psi lines, in violation of the specifications for a job.

9. Bechtel supervisors often request that an employee other than the one terminating a wire sign a termination card,

and either sign his own name or falsely the name of someone else. Often I, or other employees I know, have signed these cards, and placed the letters "U.P." on the bottom of the cards, indicating we have signed the cards "under protest."

10. Many of the quality control employees are not qualified to inspect electrical work completed, including high-voltage splicing.

11. I was asked to splice a QC cable to the spray pond. I told my supervisor that I was unable to splice any wire which was explicitly hooked up to a safety system (any red, green, blue or yellow-marked wire) unless I was shown technical specifications which permitted me to splice such wire. I believe that no technical specifications allow the splicing of wires connected to important safety systems, especially the safe shutdown system for the plant.

12. The unistrut, a component of the electrical control cable shutdown system, does not meet minimum specifications. A heavy overload may be created on the central cables by continual adding of new pipes.

13. Last March, I spoke to the NRC representative on-site and told him that I would like to discuss serious problems I had observed at the Palo Verde site as a worker. He told me that he could not help me and that I should contact the NRC regional office in Las Vegas. I called the NRC in Las Vegas on or about March 25, 1982,

and asked to discuss some serious problems about the construction of Palo Verde. The NRC regional office referred me to E.E. Van Brunt and told me that they could not help me. I called Mr. Van Brunt's office and was told by a Mr. Johnson that Mr. Van Brunt was too busy to talk to me but that if I left my name and phone number he would try to call me back.

I did not leave my name or number and I did not call Mr. Van Brunt again because I did not believe that he would do anything about the problems I wanted to point out to him. I reached this conclusion because I had approached APS engineers on the job and told them about these problems many times. They always told me that I should not worry because the problems would be caught by quality control. I did not believe that APS was concerned about ensuring that these problems were solved.

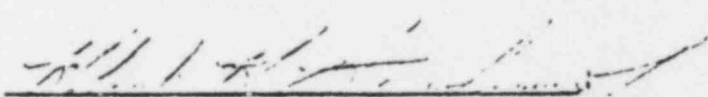
I saw Ms. Patricia Lee Hourihan's name in the newspaper as intervenor and telephoned her as a last resort. After the first meeting with Ms. Hourihan I received by telephone a death threat on my life.

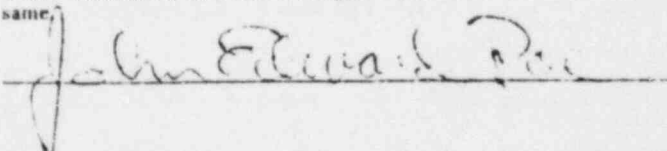


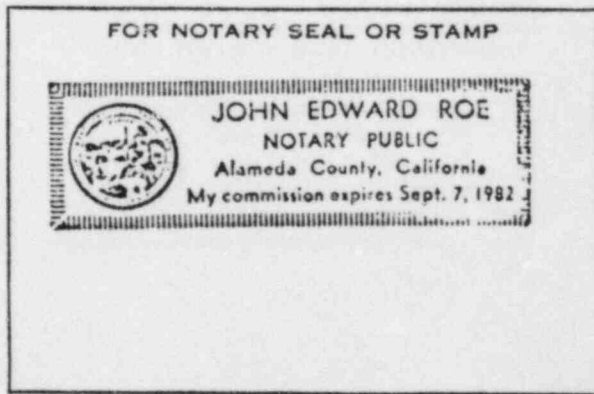
14. I have often seen a quality control supervisor mark a job finished. A Bechtel employee then removes the marking indicating that a job is completed and marks down that the job needs additional work, even if specifications have been previously met.

15. I will not testify openly about this matter because I fear harassment from the Bechtel Corporation and the utility companies owning Palo Verde. In the past many workers who complained about these things were blackballed from work.

16. I am currently looking for another job and, with my wife, intend to change my residence.

  
Robert D. Gunderson

STATE OF CALIFORNIA  
COUNTY OF Alameda } SS.  
On 17 May 1982 before me,  
the undersigned, a Notary Public in and for said County and State,  
personally appeared Robert D. Gunderson  
\_\_\_\_\_, known to me  
to be the person whose name is subscribed to the  
within instrument and acknowledged that he executed the  
same.  




Indian Bend

Pima

Location of

X

S-4

Mc Dowall

X

McKillops

S-6

COUNTRY CLUB

Brown

UNITS

Cobalt

LINDSAY

ROBERT D. GUNDERSON's res.  
3148 East Caballero  
Mesa, Arizona  
tel# 602/ 832-5618

Last House on  
Left

Received 6/1/82  
mk

S-13  
S-12



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION V  
1000 N. CALIFORNIA BOULEVARD  
SUITE 202, WALNUT CREEK PLAZA  
WALNUT CREEK, CALIFORNIA 94596

INVESTIGATIONS  
INTERVIEW REPORT

CASE: RV-IV-82-029

NAME: GUNDERSON, ROBERT D. JR.  
Last First Middle

Location of Interview: Radisson Scottsdale Resort and Racquet Club, Scottsdale, Az Date: 6/1/82

Starting Time: 2:35 pm Ending Time: 5:15 pm

DOB: 12-16-42 SS#: 482-46-6300

Address: 3148 East Caballero City: Mesa State: Arizona  
number street 85203

Phone: 602/832-5618 residence work

Time at current job: Unemployed years months 26 mos. @ Palo Verde

Prior work experience on nuclear projects:

SITE	EMPLOYER	JOB TITLE	LENGTH
Daimye Arnold Energy Ctr.	Bechtel	Cable Pulling	4 1/2 to 5 mos.
FFTF, Hanford	Bechtel	Maintenance	1 week
AEC-200 West, Richland	AEC	Robot Mending Machine	Jensen Elec. - About 2 mos.
Diablo Canyon	H.P. Foley	Setting gear (meters)	1 mo.
Palo Verde NGS	Bechtel	High Voltage Terminator	2 years (26 mos.)

Job Title: \_\_\_\_\_

Employer: \_\_\_\_\_

Placed under oath by: SHACKLETON (Affirmation as he is an atheist)

Present from NRC: ELIN & POWER & SHACKLETON

Present at Interviewee's request: None

Requests Anonymity: ☒ yes ☐ no

6/1/82

NRC

Interview of ROBERT D. GUNDERSON JR.  
@ Redwood Scottsdale

From tel. bill 4/22/82 it shows the number GUNDERSON was told to call in Las Vegas, NV was 702/734-3318.

NOTE: These notes only supplement the tape recording.

He got this no. from Arizona Atomic Energy Com. in Phoenix, on 3/25/82.

Talked to a man. This man gave him the no. in Las Vegas saying it was the closest NRC office.

When he talked to Las Vegas he got a woman on the tel. She said she couldn't do anything about it.

And he had to get hold of Mr. Van Brunt, <sup>eng. over</sup> <sup>construction</sup> <sup>at Palo Verde</sup> with A.P.S., who was in charge of construction. <sup>man not sure of his agency. Believes it was</sup>

Called Van Brunt & got a Mr. [Bill or Bob Johnson].

Put on hold. Didn't give the reason.

Came back on line. Couldn't get Van Brunt.

Called back about 3 hrs. later. Put on hold again.

This was on 3/25/82. He finally hung up without talking to anyone once he was put on hold.

Has never talked to NRC inspectors at the site.

Has never tried to contact them <sup>(NRC inspectors)</sup> at their office.

NRC Inspector Always under escort.

Doesn't know the identity of these residents @ Palo Verde.

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His first mtg. with Hovrihan on 3/26/82

3/29/82 rec'd. the first tel. complaint. It came in around 7:03 pm.

All of his fellow workers were aware of his concerns.  
He has a listed tel. no.

Got 2 calls between the 3/29/82 & 3<sup>rd</sup> April 1982.  
He answered the phone. Son & wife <sup>were</sup> gone.  
You could hear background music & that was it.

3<sup>rd</sup> call had to be <sup>sometime</sup> before the 3<sup>rd</sup> of April, 1982.

No further threats of any kind have been received.

\*

Termination Cards



Splicing QC Cable

Red, yellow, blue or green.

QC is involved with these cables.

[MIKE OSGOOD] is the patching foreman who was involved with the splicing of the cable.

Happened he would say right after the turn of the year (1982).

They were control cables. Used black splice.

MIKE knows exactly where the splices are located.

MIKE came and got the snake tube from BOB.

Location

100' Elevation SE section of the East Bldg in corridor area.  
140' " SW " of the East Bldg - in corridor area



## GUNDERSON (cont'd.)

120' elevation is the floor level. 140' is up almost to the next floor.

Probably 3 or 4 cables in each area are involved. He hasn't actually seen the splices involved.

### (3) Improper Use of Insulation

- o ScotchVill was used instead of 130 C. Coming out below the shrink tubes.
- o Used where line is bolted to the motor.
- o 130 C is 1/2" rubber tape.
- o He brought it up to REGGIE JOHNSON and HECTOR NUNEZ. Generated about Nov. 1980. Wrote an RFI w/Foreman to Engineering w/ his foreman. They responded they could be used interchangeably.
- o Didn't have hot weather then. Consequently, it didn't melt and run at that time.

### (4) Used One Bolt Lug When Two Bolt Lugs Are Required

North side has one bolts. } Spray Pond Motors  
 South " " two " }

You can tell it thru the heat shrink Engineering is ANDERSON and BOB ROFF (ph). They were responsible.

Happened in about last Nov or first Dec, 1981.

KEVIN BROTHILL should know the no. of the destroyed NCR.

GUNDERSON (Cont'd.)

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⑤ QCIs Are Not Qualified for Electrical

Concerned that some of the QCIs were not knowledgeable.

- SHAW, Dwayne, former QCI  
RIGGS, Steve, " "  
ANDY ANDERSON — Never a QC.  
BURHAM, FNU, (Former QCI)  
BROYHILL, KEVIN (Former QCI)

He had some of them for 2 days before they went in the field.

REGGIE JOHNSON sometimes would terminate w/o QCI present. The QC would either have to buy it off or have it torn apart so they could check the work.

⑥ Construction is Overriding QC

Notes I made are correct.

⑦ Repeating High Potential Testing On the Same Cable  
Specs from Amarcorder stated only one High Pot. test was to be run.

The reason is High Pot breaks down the shield.

LEAD



RUSSELL FABLE

San Juan Trailer Park

91 Grand

Peoria, Az.

Now laid off. Was in start up crew

- Witness to repeated high pots.

Space 15

602/979-8738

6/1/82

GUNDERSON (Cont'd.)

⑧ Omission of the use of O Rings

They were out of O rings for Gmas. and just kept piping.

⑨ Battery Room Walls

⑩ Damaged Conduit from Drilling Has Not Been Repaired

Jerry STUART

Bill WILLIAMS

} Did the patching. Laughed and giggled when they were doing it.

⑪ Use of Improper Cable

Q and Qc are the same

⑫ Welding Allegations

On non-safety side

NRC will double check.



⑬ Inadequate X-Ray of Splices

6, 7 (C&D)

and

6, 7 (C)



Went to APPS  
Went to Electrical  
Stewart

EXPOSURE  
OF  
TWO WORKMEN

Were in vessel in containment.

First vessel on right.

These two men were inside when they were X-raying the lines.

Complaint was lodged. They had them write out a little report.

HP

Problem

Possibly

? Around Christmas, 1981.

Hand held X-ray machine. Were X-ray pipe underneath them.

Don't know the distance. Would penetrate 10 to 12" of steel.

⑭ Unistrut — Improper changing of.

on  
T&E

Change the bracket after the buy off. This is what they are doing. Bottom of Control Bldg, Unit #2. is the location. in the

GUNDERSON (Cont'd).

Doing it to get even with RAY WOODS, <sup>Bachtel</sup> GF, and YASHIMOTO (GF) GF for Electrical. In unit #2. Men mad at them for ~~drank~~ firing (for union) men for drinking coffee, <sup>taking too many</sup> easy cuts, etc.

1979—thru Christmas, 1981. Do it to get even. To get them fired get rid of somebody who's been giving you a bad time.

USE OF NARCOTICS

Sanctuary Acres

- Engineers go there to smoke "pot."
  - Pet-fab. area for inside of forms for dome for Unit #3.
  - Some are QCI. Out there day & night. Go about anywhere <sup>on site</sup> and find it <sup>smoking</sup> pot.
- ~~Bring in the things.~~

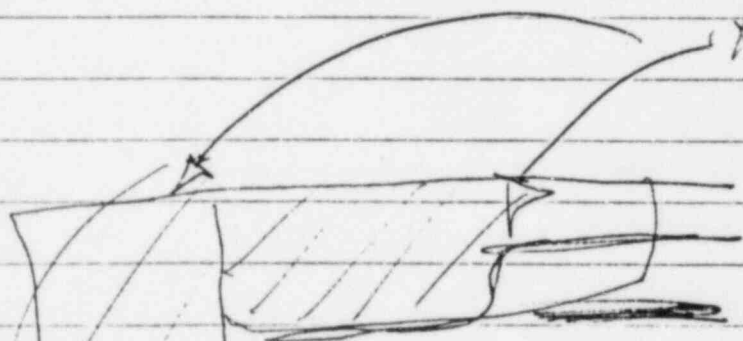
"I am not going to give any names."  
"Give them polygraph test and find out." — response of Allegor to request of names of who is using <sup>and</sup> or selling dope on site.

Allen C. Shackleton Jr.  
Investigator

DIAGRAM RELATING TO USE OF  
CONTROLLED DRUGS AT PALO VERDE

CABLE  
SPREADING  
ROOM.

Area of Pot Smoking  
Everyday. All shifts



Elevator

Unit #1

Received 6/1/82 (N)

Elev 120'  
Aux. Control  
Tender Control Room



NOTES ON ATTEMPTS TO LOCATE AND INTERVIEW KEVIN BROYHILL

KEVIN BROYHILL

Moved ~~5050 N. 15<sup>TH</sup> Ave.~~  
from: ~~Phoenix, Arizona~~

Changed to: ~~602/274-6612~~  
602/233-9669

6/13/82 Quit <sup>290 ft from</sup> 1/2 wks<sup>1</sup> Bechtel at PUNGS.

Didn't care for the work is the reason he gave.

He is a communications Technician.

He recently moved.

Wants anonymity.

He will talk to us tomorrow at 10:00 AM @ Mt. Shadows.

He has concerns about 3 pump motors.

OK

6/14/82 Made appt. for 2:00pm. 6/15/82 at the resort.

He said he didn't make it because of a "big dental appointment."

He said he had something at the plant he wanted to tell us about.

He was very scared of being seen by the press.

Allen C. Shackleton Jr.  
Investigator



(21)

RESUME

ROBERT D. GUNDERSON  
3148 E. Caballero  
Mesa, AZ 85203

Born: December 16, 1942

Telephone: (602) 832-5618

Married, 3 children (ages 18, 17, 16)

Health: Excellent

CAREER OBJECTIVE:

To obtain a challenging and responsible position in electrical supervision or as an electrical engineer specializing in the power division or mines and minerals division. I am flexible and will relocate to any region, including overseas, if necessary.

PROFESSIONAL EXPERIENCE:

April 1977 to Present Have worked in various capacities for Bechtel Power Corporation. Assignments include work at the Cholla Powerhouse in Joseph City, the Coronado Powerhouse in St. Johns, and at Palo Verde where I am presently employed. Experience includes all facets of journeyman electrician work. I have proficiency in high voltage cable splicing, stress splicing, welding, electrical maintenance, establishing cable tray and cable tray supports, grounding grid pads and installing buse tools. I also served on the start up crew for one year and worked in the calibration shop for 8 months, along with electrical maintenance for 3 months while I was employed at the Powerhouse in Joseph City.

I am familiar with all tools associated with all facets of electrical engineering, and can operate the following tools efficiently: High press, assorted wire crimping tools, wiggie, 260 simpson, amp probe, tic-tac, high pot, megger, cadweld, band saws, drill presses, hydraulic jacks, torque wrenches, drill motors, Johnson bar, signal phase meter, milliamp meter, assorted testing equipment, and calibrated k-ray equipment.

August 1976 to January 1977 Employed as electrician and performed as welder on precipitator; operated plastic covered pipe in crusher area; operated pipe bending and threading equipment, as well as all welding machines.

1975 to 1976 Assignments prior to 1976 include serving as electrician at Blanton Electric in Beaumont, Texas where main duties included cable pulling while serving as foreman supervising a 10 man crew responsible for wire terminating. This position terminated when I moved to Utah.

S-1616  
S-~~1616~~

In 1975-1976 I was employed with Bechtel Power Corporation in Rock Springs, Wyoming and worked as a member of a piping crew specializing in heavy wall pipe.

1962 to 1975 Employment included work in all areas of engineering ranging from work as a journeyman electrician to work on a remote controlled plutonium mining machine. References and details of exact performance of duties can be obtained upon request.

General Info I have over 19 years of direct experience working as an electrician with the following general breakdown:

- 3 years - nuclear powerhouses
- 4 years - fossil fuel powerhouses
- 2 years - mines
- 9 years - commercial and industrial
- 1 year - residential

#### SUPERVISORY EXPERIENCE:

I have held responsible supervisory positions as foreman of 10 man crews, and general foreman providing supervision for three 10 man crews to complete employment goals and objectives. I also served as job steward and was president and secretary of joint apprenticeship and training committee. Recently I've been responsible for training most work crews in high voltage cable splicing and detecting defects in workmanship.

#### EDUCATION:

High school graduate from Orange Twp., Waterloo, Iowa  
4 years - Journeyman Wireman Certification received on January 5, 1978 in Waterloo, Iowa  
Currently hold Journeyman Wireman License Number D240417IBEW Local 288, Waterloo, Iowa  
Course Work in Static Logic Control and Business Management

#### INTERESTS:

Include reading, writing, sports, camping, and enjoying all facets of small arms collecting and marksmanship. I enjoy dowsing and am a licensed pilot. I also enjoy young people and am a licensed foster parent for the State of Arizona and have a foster child currently living with my family.

JOB HISTORY

Date: April 1980 to Present  
Employer: Bechtel Power Corp.  
50 Beale St.  
San Francisco, California  
  
Job Site: Palo Verde Nuclear Generating Station  
Supervisor: Hector Nunez  
Base Salary: \$2744/mo.  
Duties: High voltage cable splicing, stress splicing

Date: January 1980 to April 1980  
Employer: Bechtel Power Corp.  
50 Beale St.  
San Francisco, Ca.  
  
Job Site: Cholla Powerhouse, Joseph City, Az.  
Supervisor: Harold Stubbs  
Base Salary: \$2728/mo.  
Duties: Electrical maintenance; fixed elevator, manlifts,  
welding machines, electrical tools, strung temporary  
lighting and power.  
  
Reason for Leaving: Find work closer to home.

Date: August 1979 to November 1979  
Employer: H.P. Foley Electric Co.  
Tucson, Az.  
  
Job Site: Ray Mine, Ray, Az.  
Supervisor: Roger Lunt  
Base Salary: \$2888/mo.  
Duties: High voltage splicing, high potting and testing high  
voltage splices.  
  
Reason for Leaving: Laid off.

April 1979 to August 1979

Amstel Power Corp.

Verde Nuclear Generating Station

Plant Woods

Rate \$2000/mo.

Working in cable tray and cable tray supports,

Putting in grid pads.

gr

April 1979 to April 1979

Amstel Power Corp.

Verde Powerhouse, St. Johns, Az.

Plant Mitten

Rate \$2000/mo.

Working on buse

work closer to home.

April 1977 to March 1979

Amstel Power Corp.

Verde Powerhouse, Joseph City, Az.

Plant Stubbs

Rate \$2728/mo.

Working on up crew - one year. Calibration shop - 8 mos.

Working on electrical maintenance - 3 mos.

off.

Employed February and March 1977.

April 1976 to January 1977

State Electric

Lake City, Utah

Scott Copper Mine, Salt Lake City, Utah

Plant Cook

Rate \$2000/mo.

Working on precipitator, ran plastic covered pipe

in pusher area, ran pipe bending and threading

equipment, and welding machine.

to Arizona.

Date: Feb., 1976 to Aug., 1976  
Employer: Blanton Electric  
Beaumont, Texas

Job Site: DuPont Chemical Co.

Supervisor: Glen Autenot

Base salary: \$1632/mo.

Duties: Worked on cable pulling crew. Also was foreman of  
wire terminating crew (10 men)

Reason for  
Leaving: Moved to Utah

Date: Sept., 1975 to Feb., 1976  
Employer: Eechtel Power Corp.  
Rock Springs, Wyoming

Job Site: F.M.C. Chemical Co.

Supervisor: Unknown

Base Salary: \$1446/mo.

Duties: Worked on a piping crew with heavy wall pipe.

Reason for  
Leaving: Laid off

Date: Aug., 1975 to Sept., 1975  
Employer: Jenson Electric Co.  
Pasco, Washington  
Job Site: Hanford Project (AEC)

Base Salary: \$1480/mo.  
Duties: Installed remote controlled plutonium mining  
machine.

Reason for  
Leaving: Find work closer to home

Date: May 1975 to Aug., 1975  
Employer: Jenson Electric Co.  
Waterloo, Iowa

Job Site: John Deere Engine Plant

Base Salary: \$1389/mo.

Duties: Installed overhead buse and made buse drops to  
equipment

Reason for  
Leaving: Laid off  
Supervisor: Robert Herman



Date: Sept., 1965 to June, 1967  
Employer: Hub Electric  
Waterloo, Iowa

Job Site: Univ. Northern Iowa dormitories  
Civic Center Administration Building  
Service truck

Base Salary: \$200/mo.  
Duties: Apprentice

Date: May, 1963 to Sept., 1965  
Employer: See Electric Co.  
Waterloo, Iowa

Job Site: Univ. Northern Iowa Library  
Schultz Hospital  
Street Lighting, National Dairy Cattle Congress

Duties: Apprentice  
Reason for Leaving: Transferred by Union

Date: June, 1962 to May, 1963  
Employer: Waterloo City Engineer  
Waterloo, Iowa

Duties: Gun man survey team  
Reason for Leaving: Transferred by Union



Date: Feb., 1973 to April, 1973  
Employer: Zeno's AAA Electric-bankrupt  
Phoenix, Arizona

Job Site: 24th St. & Northern

Base Salary: \$1440/mo.  
Duties: Wiring apartment houses  
Reason for Leaving: Return to Iowa

Date: Sept., 1972 to Feb., 1973  
Employer: Paulson Electric  
Waterloo, Iowa

Job Site: Kitchens of Sara Lee  
New Hartford, Iowa

Base Salary: \$1120/mo.  
Duties: Wiring control room  
Reason for Leaving: Laid off

Date: June, 1971 to Sept., 1972  
Employer: Burlington Electric  
Waterloo, Iowa

Job Site: John Deere Electric Foundry

Base Salary: \$1120/mo.  
Duties: Steward for Local 288 & cable-splicer  
Supervisor: Robert Herman

Date: Nov., 1969 to May, 1971  
Employer: Swanson & Nunn Electric  
Davenport, Iowa

Job Site: Alcoa Rolling Mill

Base Salary: \$1200/mo.  
Duties: Wired P&H overhead crane's 60 ton's to 360 ton's  
Supervisor: Clarence Tchillard

Date: June, 1967 to Nov., 1969  
Employer: Blackhawk Electric  
Waterloo, Iowa

Job Site: Crossroads Shopping Center

Base Salary: \$400/mo.  
Duties: Foreman of 10 man crew & in 1968, general foreman  
of 3 crews (33 men)

( 22 )  
Scottsdale, Arizona  
June 1, 1982  
1435 hours

I, ROBERT D. GUNDERSON JR., hereby make the following voluntary statement to OWEN C. SHACKLETON JR. and EUGENE J. POWER, investigators, and JOHN O. ELIN, an inspector, who have identified themselves to me as representatives of the US Nuclear Regulatory Commission. I make this statement freely without hope of benefit or reward, without threat of punishment, and without coercion, unlawful influence, or unlawful inducement. I understand that this statement may be used in a regulatory hearing or legal proceeding.

I was employed for 26 months as a journeyman electrician for the Bechtel Power Corporation at the Palo Verde Nuclear Generating Station, Arizona. I worked on the site from April 1980 until I quit on March 5, 1982 because the union asked travelers to quit and I did not want to take a local person's job. I have about 19 years experience as an electrician of which 3 years have been on nuclear projects. My duties included high voltage cable termination and splicing.

While working at the site, I developed concerns on the adequacy of the electrical installations. In March 1982, date unrecalled, I spoke to an Arizona Public Service (APS) engineer, name unknown, on site and told him that I would like to discuss serious problems I had observed at

INITIALS RGJ

PAGE 1 of 19 PAGES

STATEMENT OF ROBERT D. GUNDERSON JR, TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

the Palo Verde Nuclear Generation Station. He told me that if it was a quality related problem that I should contact the NRC. I telephonically contacted the Arizona AEC office in Phoenix, Arizona on March 25, 1982 and talked to an unknown male concerning quality problems I had observed. This individual told me he could not help me and I should contact the NRC. He said the "closest NRC office was in Las Vegas" at telephone number 702-734-3318. I called this number on March 25, 1982 at 8:27 AM. A woman answered the telephone and I do not recall how she identified the agency. I spoke to this lady for about one minute, and I briefly told her of my concerns at Palo Verde. She told me she could not do anything about it, and referred me to Mr. VAN BRUNT, the engineer in charge of construction at Palo Verde. Attached is a copy of my telephone bill dated April 22, 1982 which indicates the telephone call to the agency in Las Vegas.

On the same date, I telephoned the office of Mr. E. E. VAN BRUNT and spoke to an individual but I am not sure of his name but I believe it was either BILL or BOB JOHNSON. I told this individual that I was formally employed at Palo Verde and wanted to talk to Mr. VAN BRUNT. I was placed on hold temporarily. When the individual returned to the phone, he told me that VAN BRUNT was not there and I could talk to someone else. He did not know

INITIALS RHA

PAGE 2 of 19 PAGES

STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

when VAN BRUNT would return. He also told me I could leave my name and telephone number and VAN BRUNT would return my call. I did not leave my name and number, but I did call back about three hours later. I was put on hold again, waited for a period of time, and finally hung up. In these telephone contacts with APS, I did not voice my concerns about Palo Verde.

I did not attempt to contact the NRC personnel on the site. I was able to identify the NRC inspectors in the field by their white hats with NRC letters on the side. I did not approach these individuals with my concerns because whenever I saw them they were accompanied by Bechtel personnel. I never attempted to contact the NRC resident inspectors at their office. Other than stated above, I did not attempt to contact any NRC personnel or offices prior to May 26, 1982, when I telephoned Mr. SHACKLETON at his residence in California.

I saw Ms. PATRICIA LEE HOURIHAN's name in the newspaper as an intervenor and telephoned her as a last resort. My first contact with her was on March 26, 1982 and I have had subsequent meetings with her and her associates.

On March 29, 1982, I received a telephone call at a few minutes after 7 PM at my home and a male voice said " I'm going to kill you." The individual started laughing

INITIALS RHA

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

and then he hung up. I could hear music in the background but I could not identify the voice. I was the only one who answered the telephone and there was no one else at home. The male voice sounded like a young man in his 20's or 30's. The voice was not familiar to me and I have no idea who might have made this call. I have a listed telephone number, and I openly voiced my concerns to my fellow workers at the site. On March 31, 1982, I received a telephone call at my home and when I answered it there was no voice but just the sound of a person breathing. I just hung up. I received the third and last telephone call sometime before April 3, 1982, and again during this call there was no conversation but only a person breathing. I hung up on them. There have been no additional telephone calls or threats of any kind to me or members of my family. I did not report this to any law enforcement agency because I knew there was nothing they could do. I was a deputy sheriff for two and one half years in Iowa and aware that the police can take no action on a matter of this kind. I am very proficient with firearms and not afraid of anyone making threats against me. I now think maybe the call was just some prank, and maybe the second and third telephone calls were to wrong numbers.

INITIALS RR

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

The following paragraphs detail the information  
in work practices that I feel should be brought to the at-  
tention of the Nuclear Regulatory Commission.

1. Improper Documentation of Cable Termination  
Records. During my two year period of employment at the  
site, I was periodically required to sign for Quality  
Class terminations which I in fact did not make. This  
was a common practice for other workers in my discipline  
to do the same thing. Periodically, HECTOR NUNES, Gen-  
eral Foreman, or REGGIE JOHNSON, Superintendent, both  
with Bechtel, would prepare termination cards for sup-  
posedly completed terminations on quality class safety  
related systems and direct myself or other employees  
to sign the cards as the individual having performed the  
termination. We were not requested to verify the work  
had been properly performed. On the cards that I signed  
I am not sure that the crimp tool shown on the card was  
actually used to perform the termination. The reasons  
I was given by NUNES or JOHNSON for requiring signatures  
was that the originally completed cards had been lost by  
engineering, and the person who performed the work was  
unknown, or not at the site. Since I did not want to  
sign these cards and subsequently be held responsible

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

if later there was a problem, I placed the letters "UP" to reflect "under protest" in the lower left hand corner of the card near my signature. Some other employees, one of whom was 7(D) <sup>HHA</sup>, stated to me that they may have put a check, star, or other identifying mark in the lower left hand corner of the form to indicate they had also signed cards for terminations that had not been performed by them. I was directed to sign two to three cards in some weeks, and other times I flatly refused to sign them. I personally signed only maybe a dozen cards altogether and this was when I was in hot water and "I was told either do it or get another job." I estimate that 250 to 300 cards are involved which covered the work of five crews over the period from 1981 to 1982. I know the following individuals were directed and did falsely sign termination cards indicating they had performed the termination: 7(D)

7(D) I also observed a couple of termination cards which were already signed with my name, but it was not my signature and I have no knowledge of who signed my name. <sup>HHA</sup>

I observed some Quality Control (QC) inspectors sign termination cards at their trailer office indicating that they had inspected the terminations. I do not know

INITIALS HHA

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

if the QC inspectors did or did not inspect the actual terminations.

2. Improper Splicing of Quality Class Safety Related Cables. Sometime after the first of the year in early January 1982, General Foreman MIKE OSGOOD directed that splices be made on red and green safety related control cables which had previously been burned by slag from overhead welding which fell on the cable trays. OSGOOD asked me to provide him with heat shrink tubes to be used on these splices. I did not observe the splices but believe that they were made with black heat shrink tubing which were then covered by other cables. The locations for these splices are in cable trays in overhead of corridor areas of the Auxiliary Building of Unit 1 at the 100 foot level at about the 118 foot elevation south east section and at ~~the~~ 120 foot level at about the 138 foot elevation in the south west section. The electricians tried not to alert QC personnel to these splices so that the cables would not have to be repulled and reterminated. I do not know if QC personnel ever inspected or accepted these cables.

3. Start-Up not following Cable Determination Procedures. Start-up personnel do not follow construction

INITIALS RG

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

cable termination procedures. Start-up personnel remove wires without determination cards and leave them hanging in the cabinets. In one instance, I had to do a termination three times in one day, and it appeared that someone in Start-up had changed two of the wires in the cabinet after each time I hooked it up. This was verified by ~~KEVIN BROTHILL, a QC inspector,~~ and a Black engineer whose name I do not recall. The Start-up personnel simply changed the wires any way they wanted to. This is one instance of a common occurrence.

4. Use of Improper Insulation of High Voltage Termination. An insulation material is used where lugs contact terminals to smooth sharp points especially near bolts to prevent damage to heat shrink tubing. Originally, it was the practice to use a product of the 3M company called Scotchville<sup>P</sup> 2200 which came in a black pad which was squeezable or formable. Later, a material which I believe was supplied by the Rayco company identified as 130 C which is in the form of a 1/2 inch wide tape and was used to perform this function. The 130 C is hard or firm. It was noted by site personnel that Scotchville 2200 was rated at 600 volts and a Request for Information (RFI)

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

was sent to Bechtel engineering about November 1980<sup>D</sup> question-  
ing this practice of using Scotchville 2200 for terminations.  
Bechtel replied that Scotchville 2200 or 130 C could be used  
inter-changeably. In October or November 1981, a new spec-  
ification was issued which required the use of only 130 C on  
high voltage terminations. After the issue of the new spec-  
ification we started using 130 C on all high voltage splices.  
It was believed that the reason for the change to 130 C was  
based upon the fact that Scotchville 2200 was squeezing out  
of the heat shrink tubing and the heat shrink tubing was  
cracking where it contacted the corners of termination bolts.  
Scotchville 2200 was originally on splices on the High Pres-  
sure Injection Pumps, Low Pressure Injection Pumps, circul-  
ating water motors on the end of the turbines, and the emer-  
gency motors of the water intake for the cooling towers and  
the spray ponds. The change in specifications was not retro-  
active to these or other motors previously terminated. While  
performing megger checks and high potting, the Start-up per-  
sonnel removed the termination on all of the above motors  
except the emergency motors of the water intake for the co-  
oling towers, which are safety related. Because of this,  
all of the other motors indicated had their Scotchville  
2200 replaced with 130 C.

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

5. Use of One Bolt Lug When a Two Bolt Lug Was Required. In some instances, Bechtel directed the installation of a one bolt lug, which has a 45 to 65 amp rating, on motors that run at 120 amps and <sup>Run's</sup> ~~run~~ 480 amp surge. This — occurred when motors were received from the manufacturer without any lugs attached. Bechtel engineers, ANDY ANDERSON and BOB RUFF, directed that one bolt lugs be installed on these motors. This took place at about the last part of November or early part of December 1981. One of the motors that was set up with a one bolt lug coming off of the motor and connecting it to a field cable that had a two bolt lug was the spray pond pump on the north side of the pond at the west end of Unit 1. Two bolts were put into the two bolt lug to make it look like there were two individual two lug bolt properly connected. But the spray pond pump on the south side of the spray pond had a two bolt lug coming off of the motor. This use of a one bolt lug was done in all the motors mentioned in Item 4 above except for the circulating water pump.

KEVIN BROYHILL was advised by me of this attempt to make the connections look like they had two individual two bolt lugs fastened together when one lug was only a one bolt lug. BROYHILL prepared a Nonconformance Report

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

(NCR) on this problem but I believe construction personnel destroyed the NCR. The improperly fastened one bolt lugs can be identified by either feeling through the heat shrink or by means of x-ray.

6. QC Inspectors Are Not Properly Trained or Qualified for Inspecting Electrical Installations. <sup>of High Voltage Terminals</sup> ~~HA~~  
I was called on several times during my employment to spend a couple of days training new QC inspectors for electrical. Many of these inspectors had no background in the electrical field and the only training they received was the amount of time I could spend with them in their initial two days of training.

An instance that demonstrates the QC inspectors lacking electrical knowledge occurred when REGGIE JOHNSON and HECTOR NUNEZ wanted me to splice the QC cable in a manhole in front of the spray pond of Unit 1. The cable had been run for the suction motors but the cable was too short. The code does not allow this splicing. I had to go to five QC inspectors before I could find one to ~~HA~~ say the splicing of the AC cable was not to be done. The other QC inspectors were not sure of what to do so they apparently went along with the desires of the construction personnel. As a result of the direction of the last QC inspector, name unrecalled, the cables  
INITIALS ~~HA~~

STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

were pulled, and cables of the correct length were run.

7. Construction Is Over-riding Quality Control.

The instance relating to the improper splicing of cables to the spray pond pump not only illustrated the lack of knowledge on the part of the first four QC inspectors I contacted, but it also illustrates their submission to the desires of construction.

Relating back to Item 5, BROYHILL put a QC red tag on the High Pressure Safety Injection Pump located on the 40 foot elevation because it had the wrong lugs installed. REGGIE JOHNSON went over BROYHILL's head on this issue to someone in Bechtel engineering, and some one in engineering went to BROYHILL and made him pull the NCR. JOHNSON made BROYHILL remove the red tag.

8. Repeated High Potential Testing on the Same Cable. The Termination Book defines procedures for terminations and high voltage testing. The procedure specifies only one "high pot" test for cable manufactured by Anaconda Copper. This procedure was not properly being followed by personnel in construction and Start-up who are repeating the "high-pot" tests. Because of the ineptness of some of the engineers assigned to testing, I estimate that some of the cables have been tested four or five times. A typical high

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

pot for 13,800 or 4160 volt cables is to pump 69,500 volts  
through the lines.

9. Omission of the Use of O Rings. Bechtel is  
not always using O rings on the conduit to cabinet connections  
as required in cabinets downstairs in the Control Building  
at the 100 foot elevation. These cabinets are located under-  
neath piping systems, and the cabinets are required to have  
water integrity. "They were out of O rings for six months  
and just kept piping."

10. Block Wall in the Diesel Generator Area. Be-  
tween the A and B sides at the 100 foot elevation around the  
safety related battery room, the wall is constructed of  
cinder blocks, however, the wall was supposed to have been  
a concrete wall.

11. Damaged Conduit From Drilling Has Not Been  
Repaired. In the Auxiliary Building on the Southeast corner  
by the 100 foot elevation and about 15 feet above the floor,  
they drilled cores into the wall and in doing so, drilled  
into some conduit. Some of the damaged conduit was located  
approximately 18 inches into the containment wall. JERRY  
STUART and BILL WILLIAMS were assigned the task of patching

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

the damaged conduit. Because STUART and WILLIAMS could not reach the damaged conduit within the containment wall, they just plugged up the area around the hole in the wall in an attempt to isolate the damaged conduit. My concern is that thermal expansion will cause a rubbing of the insulation against the rough holes bored into the conduit causing a short. In addition, these holes could cause an induction problem as there are different voltages involved.

12. Use of Improper Cable. At the 100 and 120 foot elevation in the Auxiliary Control Building, the Q cables to the cabinets are not properly installed. The field run cables were too large for the lugs that would fit on the termination strip supplied with the equipment. To overcome this problem, the cables were cut approximately two or three feet from the cabinet and a smaller sized cable was spliced to the field cable. These modifications were for every cabinet, which are located on the feeder side. This splicing of the small cable to the larger cable can be observed in the racewall.

13. Welding Allegations. Welders are using Cobra Welding Machines with Lincoln rod rated at 300 psi on several steam lines located underneath the 140 foot elevation into the reactor building. These steam lines are rated at 850 psi and are approximately 36 inches in diameter. The welders were not pre-heating the pipes, but were making cold welds.

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14. Inadequate Number of X-Ray Inspection of Splices. At present, about one out of every 10 electrical splices are being x-rayed, but I consider this number of x-rays to be insufficient for a good QC inspection system.

15. Possible Radiation Overdose of Two Electricians. Around Christmas, 1981, 6, 7 (C & D)             
          , both electricians, were working in the first vessel to your right inside of containment. Persons, names unknown, using a hand held x-ray type machine arrived to x-ray some piping that ran underneath the vessel in which the two electricians were located. The x-ray personnel put an x-ray warning sign over the door into the vessel but did not check to see if any one was in the inside. They proceeded to x-ray the piping but the distances and period of time are unknown to me. The operators stated that their x-ray machine would penetrate 10 to 12 inches of steel.

The two electricians lodged a complaint over the possibility of receiving a radiation overdose, and were required to fill out a brief report for APS. That was the last any information we ever received concerning the incident.

16. Improper Changing of Unistrut Brackets For Electrical Trays and Pipe Supports in Unit 2.

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

Since 1979 through Christmas 1981, there have been instances where electricians or pipefitters changed unistrut brackets supporting electrical trays and/or piping after it had been bought off by QC. This is done sometimes to make it fit their own purposes or to get even with members of management or QC inspectors. This is done on the lower elevations of the control building of Unit 2. It has been done to get even with RAY WOODS, a General Foreman with Bechtel, and YASHIMOTO, General Foreman for the electrical union, because the men get mad at them for firing a craftsman for such things as drinking coffee, taking too many early "outs," etc. They do it to get even with QC inspectors who have been giving them a bad time. In some cases, they deliberately do a bad modification on the unistrut so it will be noticed. The QC name and number is stamped on the imbed plate for the bracket and it makes it look like the inspector bought off - obviously bad work, and it could result in the inspector being terminated.

17. Drugs on Site. I have heard and know that different drugs, such as pot, hashish, marijuana, cocaine, black beauties, and whatever you want, are on site. <sup>FHA</sup> Judges happen, — but I won't work with anyone that takes drugs or alcohol. It

INITIALS *RHJ*

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

happens at Palo Verde as it does at all other construction sites in the US. The dealing is done in the parking lot mostly, and on the job sometimes. You put in an order, and a couple of hours later you go to a certain location in the plant, open a little door, and there is your buy. A lid costs \$45. In some cases, they sleep on beds on the cable trays located in the spreader room, under the Control Room, on the 120 foot elevation of the Auxiliary Building. The pot smoking in the cable trays has been so bad that a couple of times I had to leave the Control Room because I could not stand the smell of the pot smoke drifting up to my work area. The use of drugs is going on out there day and night, and you can go about any where and find it. The engineers and some QC inspectors go to the large lay down area known as "Sunshine Acres" on the East side of Unit 1 where they are prefabricating the dome for Unit 3. I know some people who are in drugs but I am not going to say who they are. Those individuals on drugs and drunks I will not work with.

The comments in Item 13 of my affidavit of May 17, 1982 which indicates "I spoke to the NRC representative on site" in March 1982, is incorrect. I did talk to an APS representative which I mentioned at the beginning of this

INITIALS *R.D.G.*

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STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
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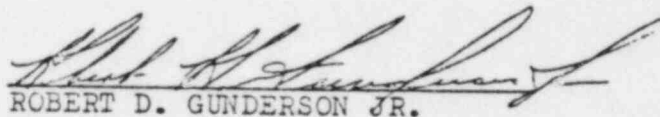
statement, but I did not talk to any NRC personnel. Also,  
the agency I contacted in Las Vegas as indicated in the  
same paragraph of that affidavit I did believe was an  
office of the US NRC. ~~END OF STATEMENT~~

INITIALS *R.D.G.*

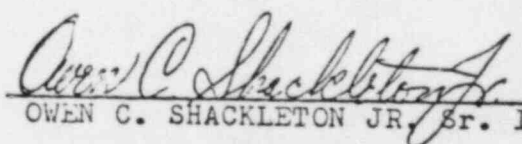
PAGE 18 of 19 PAGES

STATEMENT OF ROBERT D. GUNDERSON JR., TAKEN AT SCOTTSDALE,  
ARIZONA, DATED JUNE 1, 1982, CONTINUED:

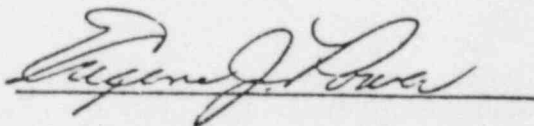
I have read the foregoing statement beginning on  
page 1 and ending on page 19. I have made any necessary  
corrections, additions and deletions, and I have initialed  
them. I have initialed the bottom of each page. This  
statement is the truth to the best of my knowledge and be-  
lief. I declare under penalty of perjury that the foregoing  
is true and correct. Executed on June 2 1982  
at Mesa, Arizona.

  
ROBERT D. GUNDERSON JR.

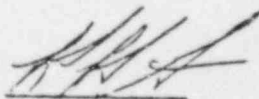
Subscribed and <sup>affirmed</sup> ~~sworn~~ to me this 2nd day of  
June, 1982 at Mesa, Arizona.

  
OWEN C. SHACKLETON JR. Sr. In vestigator

WITNESS:



INITIALS



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## RESUME

ROBERT D. GUNDERSON  
3148 E. Caballero  
Mesa, AZ 85203

Born: December 16, 1942

Telephone: (602) 832-5618

Married, 3 children (ages 18, 17, 16)

Health: Excellent

### CAREER OBJECTIVE:

To obtain a challenging and responsible position in electrical supervision or as an electrical engineer specializing in the power division or mines and minerals division. I am flexible and will relocate to any region, including overseas, if necessary.

### PROFESSIONAL EXPERIENCE:

April 1977 to Present Have worked in various capacities for Bechtel Power Corporation. Assignments include work at the Cholla Powerhouse in Joseph City, the Coronado Powerhouse in St. Johns, and at Palo Verde where I am presently employed. Experience includes all facets of journeyman electrician work. I have proficiency in high voltage cable splicing, stress splicing, welding, electrical maintenance, establishing cable tray and cable tray supports, grounding grid pads and installing buse tools. I also served on the start up crew for one year and worked in the calibration shop for 8 months, along with electrical maintenance for 3 months while I was employed at the Powerhouse in Joseph City.

I am familiar with all tools associated with all facets of electrical engineering, and can operate the following tools efficiently: High press, assorted wire crimping tools, wiggie, 260 simpson, amp probe, tic-tac, high pot, megger, cadweld, band saws, drill presses, hydraulic jacks, torque wrenches, drill motors, Johnson bar, signal phase meter, milliamp meter, assorted testing equipment, and calibrated k-ray equipment.

August 1976 to January 1977 Employed as electrician and performed as welder on precipitator; operated plastic covered pipe in crusher area; operated pipe bending and threading equipment, as well as all welding machines.

1975 to 1976 Assignments prior to 1976 include serving as electrician at Blanton Electric in Beaumont, Texas where main duties included cable pulling while serving as foreman supervising a 10 man crew responsible for wire terminating. This position terminated when I moved to Utah.



In 1975-1976 I was employed with Bechtel Power Corporation in Rock Springs, Wyoming and worked as a member of a piping crew specializing in heavy wall pipe.

1962 to 1975 Employment included work in all areas of engineering ranging from work as a journeyman electrician to work on a remote controlled plutonium mining machine. References and details of exact performance of duties can be obtained upon request.

General Info I have over 19 years of direct experience working as an electrician with the following general breakdown:

- 3 years - nuclear powerhouses
- 4 years - fossil fuel powerhouses
- 2 years - mines
- 9 years - commercial and industrial
- 1 year - residential

#### SUPERVISORY EXPERIENCE:

I have held responsible supervisory positions as foreman of 10 man crews, and general foreman providing supervision for three 10 man crews to complete employment goals and objectives. I also served as job steward and was president and secretary of joint apprenticeship and training committee. Recently I've been responsible for training most work crews in high voltage cable splicing and detecting defects in workmanship.

#### EDUCATION:

High school graduate from Orange Twp., Waterloo, Iowa  
4 years - Journeyman Wireman Certification received on January 5, 1978 in Waterloo, Iowa  
Currently hold Journeyman Wireman License Number D240417IBEW  
Local 288, Waterloo, Iowa  
Course Work in Static Logic Control and Business Management

#### INTERESTS:

Include reading, writing, sports, camping, and enjoying all facets of small arms collecting and marksmanship. I enjoy dowsing and am a licensed pilot. I also enjoy young people and am a licensed foster parent for the State of Arizona and have a foster child currently living with my family.

## JOB HISTORY

Date: April 1980 to Present  
Employer: Bechtel Power Corp.  
50 Beale St.  
San Francisco, California  
  
Job Site: Palo Verde Nuclear Generating Station  
Supervisor: Hector Nunez  
Base Salary: \$2744/mo.  
Duties: High voltage cable splicing, stress splicing

Date: January 1980 to April 1980  
Employer: Bechtel Power Corp.  
50 Beale St.  
San Francisco, Ca.  
  
Job Site: Cholla Powerhouse, Joseph City, Az.  
Supervisor: Harold Stubbs  
Base Salary: \$2728/mo.  
Duties: Electrical maintenance; fixed elevator, manlifts,  
welding machines, electrical tools, strung temporary  
lighting and power.  
  
Reason for Leaving: Find work closer to home.

Date: August 1979 to November 1979  
Employer: H.P. Foley Electric Co.  
Tucson, Az.  
  
Job Site: Ray Mine, Ray, Az.  
Supervisor: Roger Lunt  
Base Salary: \$2888/mo.  
Duties: High voltage splicing, high potting and testing high  
voltage splices.  
  
Reason for Leaving: Laid off.

Date: April 1979 to August 1979  
Employer: Bechtel Power Corp.  
Job Site: Palo Verde Nuclear Generating Station  
Supervisor: Ray Woods  
Base Salary: \$2320/mo.  
Duties: Putting in cable tray and cable tray supports,  
grounding grid pads.

Date: March 1979 to April 1979  
Employer: Bechtel Power Corp.  
Job Site: Coronado Powerhouse, St. Johns, Az.  
Supervisor: Chuck Mitten  
Base Salary: \$2728/mo.  
Duties: Installing buse  
Reason for Leaving: Find work closer to home.

Date: April 1977 to March 1979  
Employer: Bechtel Power Corp.  
Job Site: Cholla Powerhouse, Joseph City, Az.  
Supervisor: Harold Stubbs  
Base Salary: \$2456/mo. - \$2728/mo.  
Duties: Start up crew - one year. Calibration shop - 8 mos.  
Electrical maintenance - 3 mos.  
Reason for Leaving: Laid off.  
Unemployed February and March 1977.

Date: August 1976 to January 1977  
Employer: Interstate Electric  
Salt Lake City, Utah  
Job Site: Kennecott Copper Mine, Salt Lake City, Utah  
Supervisor: Bill Cook  
Base Salary: \$1920/mo.  
Duties: Welder on precipitator, ran plastic covered pipe  
in crusher area, ran pipe bending and threading  
equipment, and welding machine.  
Reason for Leaving: Move to Arizona.

Date: Feb., 1976 to Aug., 1976  
Employer: Blanton Electric  
Beaumont, Texas

Job Site: DuPont Chemical Co.

Supervisor: Glen Autenot

Base salary: \$1632/mo.

Duties: Worked on cable pulling crew. Also was foreman of  
wire terminating crew (10 men)

Reason for  
Leaving: Moved to Utah

Date: Sept., 1975 to Feb., 1976  
Employer: Bechtel Power Corp.  
Rock Springs, Wyoming

Job Site: F.M.C. Chemical Co.

Supervisor: Unknown

Base Salary: \$1446/mo.

Duties: Worked on a piping crew with heavy wall pipe.

Reason for  
Leaving: Laid off

Date: Aug., 1975 to Sept., 1975  
Employer: Jenson Electric Co.  
Pasco, Washington  
Job Site: Hanford Project (AEC)

Base Salary: \$1480/mo.

Duties: Installed remote controlled plutonium mining  
machine.

Reason for  
Leaving: Find work closer to home

Date: May 1975 to Aug., 1975  
Employer: Jenson Electric Co.  
Waterloo, Iowa

Job Site: John Deere Engine Plant

Base Salary: \$1389/mo.

Duties: Installed overhead buse and made buse drops to  
equipment

Reason for  
Leaving: Laid off  
Supervisor: Robert Herman

Date: Feb., 1975 to May, 1975  
Employer: H.P. FOLEY  
Tucson, Arizona

Job Site: Arizona Portland Cement

Base Salary: \$1781/mo.  
Duties: Worked on piping crew laying heavy wall pipe  
Reason for Leaving: Laid Off

Date: Sept., 1974 to Feb., 1975  
Employer: American Bechtel  
Rock Springs, Wyoming

Job Site: Allied Chemical Co.

Base Salary: \$1520/mo.  
Duties: Welder, then foreman of piping crew, then maintenance crew (10 man crews)  
Reason for Leaving: Laid off

Date: May 1974 to Sept., 1974  
Employer: None

Date: Sept., 1973 to May, 1974  
Employer: Bechtel Power Corp.  
Pinto Valley Globe, Arizona

Job Site: Pinto Valley Mine

Base Salary: \$1568/mo.  
Duties: Worked on cable pulling crews as foreman (10 man)  
Reason for Leaving: Laid off

Date: April 1973 to July 1973  
Employer: Bechtel Power Corp.  
Cedar Rapids, Iowa

Job Site: Palo Atomic Powerhouse

Base Salary: \$1320/mo.  
Duties: Worked on cable pulling crew  
Supervisor: Gary White  
Reason for Leaving: Laid off



Date: Feb., 1973 to April, 1973  
Employer: Zeno's AAA Electric-bankrupt  
Pheonix, Arizona

Job Site: 24th St. & Northern

Base Salary: \$1440/mo.  
Duties: Wiring apartment houses  
Reason for Leaving: Return to Iowa

Date: Sept., 1972 to Feb., 1973  
Employer: Paulson Electric  
Waterloo, Iowa

Job Site: Kitchens of Sara Lee  
New Hartford, Iowa

Base Salary: \$1120/mo.  
Duties: Wiring control room  
Reason for Leaving: Laid off

Date: June, 1971 to Sept., 1972  
Employer: Burlington Electric  
Waterloo, Iowa

Job Site: John Deere Electric Foundry

Base Salary: \$1120/mo.  
Duties: Steward for Local 288 & cable-splicer  
Supervisor: Robert Herman

Date: Nov., 1969 to May, 1971  
Employer: Swanson & Nunn Electric  
Davenport, Iowa

Job Site: Alcoa Rolling Mill

Base Salary: \$1200/mo.  
Duties: Wired P&H overnead crane's 60 ton's to 360 ton's  
Supervisor: Clancey Tchillard

Date: June, 1967 to Nov., 1969  
Employer: Blackhawk Electric  
Waterloo, Iowa

Job Site: Crossroads Shopping Center

Base Salary: \$400/mo.  
Duties: Foreman of 10 man crew & in 1968, general foreman  
of 3 crews (33 men)

Date: Sept., 1965 to June, 1967

Employer: Hub Electric  
Waterloo, Iowa

Job Site: Univ. Northern Iowa dormitories  
Civic Center Administration Building  
Service truck

Base Salary: \$200/mo.  
Duties: Apprentice

Date: May, 1963 to Sept., 1965

Employer: See Electric Co.  
Waterloo, Iowa

Job Site: Univ. Northern Iowa Library  
Schultz Hospital  
Street Lighting, National Dairy Cattle Congress

Duties: Apprentice  
Reason for Leaving: Transferred by Union

Date: June, 1962 to May, 1963

Employer: Waterloo City Engineer  
Waterloo, Iowa

Duties: Gun man survey team  
Reason for Leaving: Transferred by Union

Subject: ~~Bob~~ Verde Investigation

6/3/82

Review of Phoenix (Metro) tel directory shows only one BROYHILL

H. E. BROYHILL

730 S. Alma School Rd

Mesa, Az.

tel # 964-1924

No BROYHILL in tel dir for Scottsdale and Vicinity in the  
telephone directories in my room at the Redisson.

CSJ