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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

DUKE POWER COMPANY, et al.)

(Catawba Nuclear Station,)
Units 1 and 2))

Docket Nos. 50-413
50-414

TESTIMONY OF W. E. ROGERS, L. R. BARNES, L. W. RUDASILL,
E. G. MCKENZIE, K. R. WEBBER, J. C. SHROPSHIRE, H. R. BARKER,
D. H. LLEWELLYN AND J. R. WILSON REGARDING IN CAMERA
WITNESS #2's

ALLEGATIONS CONCERNING FOREMAN OVERRIDE

1 Q. PLEASE STATE YOUR NAMES, BUSINESS ADDRESSES AND
2 PROFESSIONAL QUALIFICATIONS.

3 Mr. Rogers: My name is W. E. (Bill) Rogers. My business
4 address is Catawba Nuclear Station, P. O. Box 223, Clover, S. C.
5 29710. My current position is Welding Superintendent. I am
6 responsible for Welding at Catawba. My department consists of
7 approximately 550 employees. Prior assignments have included
8 Welding General Foreman, Welding Foreman, Welding Inspector, and
9 Welder with Duke Power. A copy of my professional qualifications
10 is attached (Attachment A).

11
12 A. Mr. Barnes: My name is L. R. Barnes. My business address is
13 Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
14 My current position is Planning and Control Manager for
15 Construction of the Catawba Nuclear Station. A copy of my
16 professional qualifications is attached to Applicants' testimony
17 addressing the Board's Question Concerning the Containment Spray
18 System.

1 Mr. Rudasill: My name is Larry W. Rudasill. My business address
2 is Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
3 My current position is Welding Supervisor in Reactor Building #2.
4 In the past, I have held positions as a Welding Inspector and
5 Welder for Duke at Catawba and McGuire Nuclear Station. A copy
6 of my professional qualifications is attached (Attachment B).

7
8 Mr. McKenzie: My name is Ed G. McKenzie. My business address
9 is Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
10 I am a Pipe Supervisor at Catawba in Reactor Building #2 and have
11 been at Catawba for 6 years. A copy of my professional
12 qualifications is attached (Attachment C).

13
14 Mr. Webber: My name is Kenneth R. Webber. My business
15 address is Catawba Nuclear Station, P. O. Box 223, Clover, S. C.
16 29710. My current position is Pipe Superintendent. I am
17 responsible for pipe erection at Catawba. Past responsibilities
18 include Pipe and Pipe Restraint Superintendent, Welding
19 Superintendent, Welding General Foreman, Welding Foreman and
20 Welder. A copy of my professional qualifications is attached
21 (Attachment D).

22
23 Mr. Shropshire: My name is J. C. Shropshire. My business
24 address is Catawba Nuclear station, P. O. Box 223, Clover, S. C.
25 29710. My current position is Quality Assurance Engineer. I am
26 responsible for the Mechanical, Welding, and NDE Quality Assurance
27 Group. A copy of my professional qualifications is attached to

1 Applicants' testimony addressing the Board's Question Concerning
2 the Containment Spray System.

3 Mr. Wilson: My name is J. R. Wilson. My business address is
4 Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
5 My current position is Welding General Foreman. I am in charge of
6 all the welding activities in Reactor Building #2, UHI Building #2
7 and #2 Dog House. A copy of my professional qualifications is
8 attached (Attachment E).

9
10 Mr. Barker: My name is H. R. Barker. My business address is
11 Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
12 My current position is Welding Supervisor in Reactor Building #1.
13 In the past, I have held positions as a Welding Inspector and
14 Welder for Duke. A copy of my professional qualifications is
15 attached (Attachment F).

16
17 Mr. Llewellyn: My name is D. H. Llewellyn. My business address
18 is Catawba Nuclear Station, P. O. Box 223, Clover, SC 29710.
19 My present position is group leader of Technical Support - Welding.
20 A copy of my professional qualifications is attached (Attachment G).

21
22 Q. ARE YOU FAMILIAR WITH IN CAMERA WITNESS #2's ALLEGATION
23 THAT UNACCEPTABLE WELDS RESULTED FROM FOREMAN
24 PRESSURE FOR HIGH PRODUCTIVITY AS OPPOSED TO HIGH
25 QUALITY?

1 A. Yes. We have reviewed his testimony. As support for his
2 allegation, the witness raises the following major concerns:

3 1. He alleges that his foreman told him to finish his welds so
4 that they looked more uniform, despite the fact that the
5 witness did not believe that this had anything to do with
6 the adequacy of the weld.

7 2. He alleges that Buck Henry told him that Henry's foreman
8 pressured him to finish one weld using a certain weld rod
9 that was inappropriate. The witness alleges that Henry
10 further stated that the weld was rejected, Henry's stencil
11 was pulled because of this rejection, and he was unjustly
12 forced to recertify.

13 3. The witness alleges that Malcolm Young stated to him that
14 Young was forced by his foreman to weld one Class G
15 weld despite the fact that the fit-up was unacceptable,
16 and because of the poor fit-up, the one weld was
17 rejected. He alleges that Young told him that his stencil
18 was pulled because of this one rejected weld and Young
19 was unjustly forced to recertify.

20 4. The witness alleges that M. D. Ray attempted to cover up
21 defects in a weld because he was afraid of foreman
22 pressure.

23 5. The witness alleges that his foreman, L. Rudasill,
24 attempted to pressure him to tack weld fit-ups on 2 inch
25 schedule 80 stainless steel pipe for Ed McKenzie's crew in
26 the Reactor Building (Unit 2) without proper paperwork
27 present.

1 6. The witness alleges that welding foremen inappropriately
2 approved welds on construction hangers (which he states
3 are at times safety-related) in order to increase
4 production.

5

6 Q. HAVE YOU INVESTIGATED THE ALLEGATION?

7 A. Yes. This investigation consisted of a review of relevant portions
8 of documents regarding this issue, as well as discussions with
9 welders, welder foremen, general foremen, the welding
10 superintendent, the piping superintendent, and pipe fitters.

11

12 Q. WHAT WAS THE RESULT OF YOUR INVESTIGATION?

13 A. From the investigation, we determined that the witness' specific
14 allegations were not accurate. Further, we could find no instance
15 where foremen sacrificed the quality of work for quantity. On the
16 contrary, foremen are very concerned about quality. In any event,
17 nuclear safety related welds, including any which might have
18 resulted from the alleged poor welder practices, would have been
19 subjected to a number of required inspections and nondestructive
20 examinations to identify and, if necessary, repair unacceptable
21 defects. Accordingly, this allegation does not call into question the
22 safe construction of the plant. Factors which tended to support
23 this determination include those noted below.

24 1. When a welder is certified and renews his certification
25 stamp, that certification is subject to removal if the
26 quality of his welds so warrants. Quality Assurance
27 Procedure I-1 paragraph 4.7 states that renewal of

1 qualification of a welder is required when the Authorized
2 Nuclear Inspector, Construction Technical Support -
3 Welding, or the Project Quality Assurance Engineer raises
4 valid questions regarding the welder's ability to make
5 welds that meet the specifications. In short, when the
6 quality of a welder's work is called into question his
7 stamp may be pulled and he may be required to recertify.
8 Therefore, as the witness has himself stated, there is a
9 great deal of pressure on each certified welder to perform
10 quality welds so that his certification will not be pulled.
11 WER, JCS, DHL, LRB.

12
13 2. A welder's certification may be pulled by QA/QC action at
14 the recommendation of supervision such as his foreman.
15 Contrary to the witness' position, there are occasions
16 where foremen have taken welders from production work
17 and required them to undergo additional training to
18 improve the quality of the welder's work. During these
19 training periods, however, quantity of production is
20 decreased. Indeed two out of three examples noted by
21 the witness in his testimony illustrates instances where
22 the foremen have required additional training to improve
23 quality at the expense of quantity. WER, JCS.

24
25 3. With regard to the witness' allegations concerning Mr.
26 Young, Mr. Young's foreman, when questioned, stated
27 that the incident alleged by the witness did not occur as

1 the witness had described. Indeed, in our conversation
2 with the welder, he stated that he was not pressured by
3 his foreman to get the job done at the sacrifice of
4 quality. However, reports show that on approximately
5 9-30-80, Mr. Young was required to receive additional
6 training and be retested regarding a specific weld
7 procedure. The retest was conducted in October, 1981.
8 Mr. Young passed the test. Significantly, the basis for
9 the retest was failure of two welds, not one as alleged by
10 the witness. Further, Mr. Young's certification was not
11 pulled as alleged. In addition, the unacceptable welds,
12 by the witness' own admission, were not safety-related.
13 In short, despite the fact that Mr. Young was, and still
14 is, a competent welder at the Catawba site, in this
15 instance the foreman sacrificed quantity to assure that
16 quality was maintained, even on a non-safety system. In
17 this case, foreman pressure was to assure quality. WER,
18 HRB, DHL.

- 19
20 4. With regard to the witness' allegations concerning Mr.
21 Henry, Mr. Henry's foreman states that the incident as
22 alleged did not occur as described. Indeed, in our
23 conversation with the welder, he stated that he was not
24 pressured by his foreman to get the job done at the
25 sacrifice of quality. An Employee Report dated 7-14-83
26 documents a reprimand given to Mr. Henry by his
27 supervisor Larry Rudasill because of poor workmanship on

1 four welds on rupture restraints in the Unit 1 reactor
2 building. General Foreman J. R. Wilson's memo to file
3 dated 7-14-83 states that the poor workmanship was
4 discovered by welding supervision before Quality
5 Assurance became involved. The Employee Report states
6 that Henry would be required to recertify on the welding
7 process by taking the L-154 test. Welder Performance
8 Qualification Form I-1B records state that Mr. Henry
9 performed the test on 7/18 - 7/22/83. However, he
10 failed the test due to a rejectable defect discovered
11 by radiography. He retested from 8/2 - 8/5/83 and was
12 recertified on 8-23-83. Significantly, the basis for
13 pulling Mr. Henry's certification was his unacceptable
14 work on four partially completed welds, not one as alleged
15 by the witness. In addition, welding craft management
16 (not QA) was responsible for identifying the need to
17 retest to assure the welder's ability. In short, despite
18 the fact that Mr. Henry was, and still is, a certified
19 welder, craft supervision sacrificed quantity to assure
20 the quality of Mr. Henry's welds. DHL, WER, LWR,
21 JRW.

- 22
- 23 5. With regard to the witness' allegations concerning Mr.
24 Ray, the witness himself states that the foreman was
25 applying pressure to assure quality of the welds.
26 Indeed, in our conversation with the welder, he stated
27 that he was not pressured by his foreman to get the job

1 done at the sacrifice of quality. This is consistent with
2 General Foreman J. R. Wilson's memo to file dated
3 11-17-82 which states that he told M. D. Ray that the
4 quality of his work was unacceptable and that he would
5 be sent to the test shop for one day to evaluate his
6 ability. M. D. Ray's performance was determined to be
7 acceptable and no formal recertification test was given.
8 This example again supports the position that foremen will
9 not sacrifice quality for quantity. JRW, WER, DHL.
10

11 6. With regard to the witness' allegations concerning
12 pressure by Mr. Rudasill to perform tack weld fit-ups on
13 pipe for Mr. McKenzie's crew without the paperwork, no
14 records could be located involving this incident, nor did
15 anyone involved have any recollection regarding any
16 direction to tack fit-ups without paperwork. However, it
17 should be noted that the only work in the Reactor
18 Building involving Mr. McKenzie's crew working with 2
19 inch schedule 80 stainless steel pipe where holdpoints for
20 QA signatures on fit-ups were not present (and thus the
21 only possible situation the witness could be referring to)
22 was prefabrication of a temporary bypass around the
23 blowdown heat exchanger. This temporary bypass was
24 required to flush the system without running water
25 through the heat exchanger. After the flush, the
26 temporary bypass was discarded. Prefabrication work on
27 the temporary bypass did not require any paperwork. It

1 should be noted that such situations were not uncommon
2 in the plant. KRW, WER, EGM, JCS.

3
4 In addition, since much of the pipe in the plant is not
5 nuclear safety related and requires no paperwork prior to
6 fitting and welding, a similar type of situation could have
7 occurred in other areas of the plant. It should be noted
8 that as a practical matter it would be totally impractical if
9 not virtually impossible for fit-ups on safety related
10 systems to proceed without appropriate paperwork. To
11 explain, before we being to withdraw piping material from
12 storage to begin a project, piping craft must have the
13 required paperwork which includes the bill of material for
14 the work, the isometric drawings, and QA sign-off forms.
15 The issue clerks need the bill of materials before they
16 will issue materials for the work so that they can sign off
17 that the material has been issued. Further, a cleanliness
18 inspection and sign-off is required prior to fit-up, and
19 QA inspections personnel can not sign-off the cleanliness
20 inspection without the paperwork. Indeed, the sign-off
21 sheet M-4A which the QA inspector signs to signify he
22 has completed the cleanliness inspection is part of the
23 paperwork package. In short, it is virtually impossible
24 to begin work on safety-related systems (which requires
25 QA attention) without the paperwork package. KRW,
26 EGM, JCS, DHL.

1 7. With regard to the witness' allegations concerning foreman
2 approval of inadequate welds on construction hangers, it
3 should be noted that in no case are construction hangers
4 used in nuclear safety related applications at Catawba.
5 Thus, the welds described by in Camera Witness #2 are
6 not significant with respect to nuclear safety. Moreover,
7 for such non-safety-related welds, the welding foreman is
8 the individual who approves such welds. In short, this
9 allegation raises no safety-related concerns. KRW, JCS.

RESUME

WILLIAM E ROGERS

ATTACHMENT A

PERSONAL:

Home Address: 161 Weatherwood Street
Rock Hill, S C 29730
Telephone: (803) 366-6877 (Home)
(803) 831-1512 (Office)

FORMAL EDUCATION:

Keowee High School - 1958

ADDITIONAL TRAINING:

Leadership School - U S Navy
Supervisory Development - Duke Power
Management Development - Duke Power
Management Graduate Development - Duke Power
Effective Management by Harbridge House
Effective Writing Seminar - Duke Power
Appraising Performance - Duke Power

PROFESSIONAL INVOLVEMENT:

Member - AWS
Member - Advisory Board for:
Spartanburg Tech College
Tri County Tech College
York Tech College

WORK EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
12-78	Present	Welding Superintendent	Catawba Nuclear Station	Duke Power

Manage Welding craft to accomplish quality welding in accordance with ASME welding codes. Duties include hiring, training, and testing of welders to ASME, Section IV. Managing human resources to produce skilled craftsmen, supervisors, and managers. Through training, development and advancement set up an effective Welding organization. Also, responsible for all pre heat and spot weld heat treating. Responsible for purchasing and scheduling of all equipment to accomplish all of the above. Manage 7 general foremen directly, 45 foreman and 500 craftsmen indirectly.

8-77	12-78	Welding General Foreman	Catawba Nuclear Station	Duke Power
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Manage construction craft welders in Unit 1 Auxiliary Building and pipe fabrication shop to do quality welding to ASME, Section III, AWS codes and all QA and Design criteria. Duties included training and advancing craftsmen and supervisors to positions capable of meeting all construction schedules, and upgrade Duke Power's automatic welding program. Supervised 7 foremen directly and 100 craftsmen indirectly.

RESUME
William E Rogers
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WORK
EXPERIENCE: (continued)

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
8-70	8-77	Welding Foreman	McGuire Nuclear Station Oconee Nuclear Station	Duke Power
Supervised welding crews and stress relieving crew in all phases of nuclear power plant construction, such as containment plate, nuclear power piping, mainstream, and feedwater piping. Supervised stress relieving crew on coolant loop piping on Unit 2 Oconee Nuclear Station.				
1-69	8-70	Welding Inspector	Oconee Nuclear Station	Duke Power
Work in all phases of welding inspection, visual, MT, PT, RT				
8-61	1-69	Welder/Fitter		Duke Power Daniel Const. Co. Davis Mechanical Westinghouse
8-58	8-61	SR/SRP 2/c		U S Navy

RESUME

ATTACHMENT B

LARRY RUDASILL

PERSONAL:

Home Address: 4155 Koala Circle
 Tega Cay, S C 29715
 Telephone: (803) 548-0527 (Home)
 (803) 813-1512 (Office)

FORMAL
EDUCATION:

South Mecklenburg High School - 1965
 Central Piedmont Community College - Welding, Shop
 Math, Shop Science, Blueprint Reading, Shop Manage-
 ment, Business Administration, Computer Science,
 and Mechanical Courses Related to Motorcycle Repair
 and Small Engine Service.

ADDITIONAL
TRAINING:

Effective Listening - Duke Power
 Management Principles - Duke Power
 Supervisory Development - Duke Power
 Alcohol & Drug Abuse - Duke Power
 Effective Supervisory Communications - Duke Power
 Appraising Performance - Duke Power
 Supervisor as a Classroom Instructor - Duke Power
 OSHA Training - Duke Power
 Level 1 PT Training Course - Duke Power
 QC Welding Inspection Program - Duke Power
 Planning Workshop - Duke Power

WORK
EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
8-1-78	Present	Welder Foreman	Catawba Nuclear Station	Duke Power

Supervise 10-14 welders in Reactor #2 on carbon and stainless pipe requiring some x-ray, MT, PT, & UT. Ice Condenser fabrication, electrical and mechanical hot and cold penetrations (heavy wall x-ray welding). Supervised in the Auxiliary Building on ASME stainless & carbon steel piping work requiring x-ray, UT, MT, & PT examinations and permanent hangers - Construction, alternate and rigorous and electrical cable tray supports in Auxiliary Building and Reactor. June & July 1982, served on Duke Quality Awareness Committee. One and one-half years as a Welding Instructor for Duke Power Company teaching L-200 and L-300 process.

1-29-76	8-1-78	Welding Inspector	Catawba Nuclear Station	Duke Power
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Completed Welding Inspector training on 2-25-76. Performed duties as Welding Inspector in all areas of Catawba Nuclear Station. Completed training and was certified Level 1 PT NDE Inspector on 5-17-76.

12-29-75	1-29-76	Welder	Catawba Nuclear Station	Duke Power
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Very little work performed on permanent plant during this one month duration.

RESUME

Larry Rudasill

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WORK

EXPERIENCE: (Cont'd)

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
8-6-73	12-29-75	Welder	McGuire Nuclear Station	Duke Power

While at McGuire, I welded numerous x-ray welds in Turbine and Generator Cooling Tubes, numerous 100% x-ray heavy wall x-ray hot welds, penetrations in Reactor Building #1 requiring x-ray. While at McGuire, I was certified in L-300 process using E-7018, E-6010, E-308-16, with E-308-16 and E309-16 being in the limited position. Was also certified in the L-200 Process using E-70S-2 open butt and consumable inserts, ER308 and ER309 open butt and consumable inserts and aluminum certifications.

1968	1973	Welder/Fabricator	Various	Reeves Sheet Metal Co.
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While working at Reeves, I worked on numerous tanks, pipe, duct, smoke stacks, and hydraulic cylinders using E7018, E6010, ER308, ER309, E308-16, E309-16, and mig gun on a wide variety of fabrication and welding. While with Reeves, I worked at Duke Power Company's Marshall Steam Station for nine months welding aluminum and stainless steel. I worked at Duke Power Company's River Bend Station on the gas turbine units using E-7018 on plate and tanks. I worked at Duke Power Company's Allen Steam Station for six months, and Duke Power Company's Buck Steam Station for nine months and American Cyanamid Co. for nine months welding aluminum.

1967	1968	Welder	Various	Lockhardt Manufacturing Co.
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Stick welding on UL approved stainless and carbon steel doors and door frames.

RESUME

ATTACHMENT C

NAME: Ed McKenzie, Powerhouse Mechanic Supervisor

WORK LOCATION: Catawba Nuclear Station

ADDRESS: Route 3, Box 129-A York, South Carolina 29745

EDUCATION: Lockhart Elementary School
Lockhart High School
GED Received in United States Army
York County Technical College - Mechanical
Engineering - Did not graduate

	<u>FROM</u>	<u>TO</u>
WORK EXPERIENCE: Duke Power Company	9-21-77	Present
Powerhouse Mechanic	9-21-77	10-78
Powerhouse Mechanic Supv	10-78	Present

Powerhouse Mechanic Supervisors' Responsibilities (At Catawba)

- 1) Responsible for coordinating and leading the work activities for a group of Powerhouse Mechanic Learners, Helpers, and Mechanics daily.
- 2) Responsible for erecting approximately thirty safety and non-safety related systems in the RBS (Basement) of Reactors Number One and Two.
- 3) Responsible for Process Control, and Material allocation needed for meeting erection requirements.
- 4) Responsible for ensuring that the work erected under my supervision is per design requirements, safety requirements, and quality control requirements.

	<u>FROM</u>	<u>TO</u>
Daniels Construction Company	1975	1977
Powerhouse Mechanic Supervisor	1975	(3 months)
Powerhouse Mechanic Gen. Foreman	1975	1977

Powerhouse Mechanic General Foreman's Responsibilities (Daniels)

- 1) While assigned to the V C Summer Nuclear Station in Columbia, South Carolina, I was responsible for the welding program in the Reactor Building and the Turbine Building.
- 2) Was loaned to another Daniels Construction Project for approximately twelve weeks. I supervised the replacement of damaged boiler tubes at the Bowaters Construction site in Catawba, South Carolina.
- 3) Served as one of the Welding Technical Advisors for the V C Summer Nuclear Project.

WORK EXPERIENCE: (Cont)

	FROM	TO
<u>Yeargen Construction Company</u>	<u>1974</u>	<u>1975</u>
Welder	1974	(3 months)
Quality Control Supervisor	1974	1975
(Amaco Project, Charleston, SC)		
 <u>Daniels Construction Company</u>	 1972	 1974
Pipefitter and Welder		
 <u>AME Construction Company</u>	 1971	 1972
Pipefitter and Welder		
 <u>United States Army</u>	 1969	 1971
While in the Army I had formal Welder training (Tig, Mig, Stick, Aluminum, and Oxygen and Acetylene).		
 <u>Florida Steel and Erection</u>	 1969	 (8 months)
Helper in Pipe Fabrication Shop		
 <u>Myers and Chapman Construction</u>	 1967	 1969
Steel Erector and Welder		

INTERESTS AND
ACTIVITIES:

Church, Masonic Lodge #32, Shrine Club, Hunting, and Reading.

PERSONAL:

Married, two children.

RESUME

KENNETH R WEBBER

ATTACHMENT D

PERSONAL:

Home Address: #1 Easy Street
Belmont, N C 28012
Telephone: (704) 825-5667 (Home)
(803) 831-1512 ext. 512 (Office)

FORMAL EDUCATION:

Anderson Boy's High - 1955

ADDITIONAL TRAINING:

Advanced Management Training - Duke Power
Effective Management Program by Harbridge House

PROFESSIONAL INVOLVEMENT:

Member - AWS
Member - Advisory Board for:
Tri-County Tech College
Spartanburg Tech College
York Tech College
Rowan County Tech College

WORK EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
6-82	Present	Powerhouse Mechanic Superintendent - Pipe	Catawba Nuclear Station	Duke Power

Manage the construction craft to plan, schedule, and erect all piping systems in accordance with ASME III, to support plant start-up of Unit 1 with administrative responsibilities to Unit 2. Duties include allocation of resources, administration of human resources, and management through commodity production curves, cost performance reports, and quality and trend analysis reports. Manage 6 first line managers and 500 craft and supervisors.

1-78	6-82	Powerhouse Mechanic Superintendent Pipe & Support/Restraints	Catawba Nuclear Station	Duke Power
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Duties were same as 6-81 to present with the added responsibilities of support/restraints. Duties also included creating a separate division of craft to erect supports, hiring and training of 300 employees to erect supports to ASME Section III. Managed 9 direct and 10 indirect.

6-75	1-78	Welding Superintendent	Catawba Nuclear Station	Duke Power
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Managed welding craft to accomplish quality welds in accordance with ASME Section III and AWS welding codes. Set up training program and test welders to ASME Section IX. Modernize Duke's welding program through research and development of automatic processes and applications.

Sucessfully built, oqualified, and welded all containment building welds automatically and showed great cost savings. Other duties included administration of human resources, allocation of resources, and cost performance. Managed 3 direct and 350 indirect.

RESUME

Kenneth R Webber

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WORK

EXPERIENCE: (continued)

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
1-74	1-75	Welding General Foreman	McGuire Nuclear Station	Duke Power

Manage construction craft welders in the Unit 1 Reactor Building. Duties were to accomplish quality welds, high production through safe work practices, and well trained personnel. Managed 6 direct and 90 indirect.

8-70	1-74	Welding General Foreman	Oconee Nuclear Station	Duke Power
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Manage construction craft welders in Units 1,2, & 3 Reactor Buildings. Duties were to manage workforce to accomplish high quality work, high production through safe work practices, and well trained personnel. Managed 9 direct and 150 indirect.

9-69	8-70	Welding Foreman	Oconee Nuclear Station	Duke Power
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Supervised welding crew in Turbine Buildings 1,2, & 3. Duties were welding pipe and structural components.

1-58	9-69	Welder/Fitter		Duke Power Daniel Const. Co. Grinnel Co. Bahnsen Co.
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RESUME

ATTACHMENT E

J R WILSON

PERSONAL:

Home Address: 2226 Hands Mill Rd.
York, S C 29745
Telephone: (803) 366-7663 (Home)
(803) 831-1512 (Work)

FORMAL
EDUCATION:

Greer High School - 1960
Welding Course (Ewtectic) - 1960

ADDITIONAL
TRAINING:

Management Principles - Duke Power
Supervisory Development - Duke Power
Effective Listening - Duke Power
Alcohol & Drug Abuse - Duke Power
Effective Supervisory Communications - Duke Power
Appraising Performance - Duke Power
Supervisor as a Classroom Instructor - Duke Power
OSHA Training - Duke Power
Planning Workshop - Duke Power
Managing Stress - Duke Power

WORK
EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
1971	Present	Welder General Foreman	Catawba Nuclear & McGuire Nuclear	Duke Power

Plan and manage all present welding activities for 10 supervisors (120 welders) for Reactor Building #2, Interior & Exterior Dog Houses, and Upper Head Injection Building #2. Work consists of all piping systems, all miscellaneous steel, and all structural steel. Worked 3 years as Welder General Foreman at Oconee Nuclear Station and 7 years at McGuire Nuclear Station in this position.

1969	1971	Welder Foreman	Oconee Nuclear	Duke Power
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Supervised 10-15 welders in welding piping systems, containment plate, structural steel, and miscellaneous steel in Reactor Buildings, Unit 1 and 2.

1968	1969	Senior Welder	Oconee Nuclear	Duke Power
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Supervised 10-15 welders in the absence of foreman at Oconee Nuclear on piping systems, containment plate, miscellaneous steel, and structural steel in Units 1 & 2.

1967	1968	Welder	Oconee Nuclear	Duke Power
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Welded containment plate, condensor cooling water system, structural steel, miscellaneous steel, and general piping systems at Oconee Plant.

WORK
EXPERIENCE: (Cont'd)

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
1963	1967	Welder & pipefitter	Various	Daniel Const. Co.
Welded and fit piping systems in various plants in several states. (North Carolina, South Carolina, Georgia, & Tennessee).				
1962	1963	Welder & pipefitter	Lyman Printing & Finishing Co.	M Lowenstein & Sons
1961	1962	Welder & mechanic	Southern Worsted Mill	

RESUME

ATTACHMENT F

HARRY BARKER

PERSONAL:

Home Address: Rt. 1, Box 318
 Rock Hill, S C 29730
 Telephone: (803) 328-0785 (Home)
 (803) 831-1512 (Work)

FORMAL
EDUCATION:

Landis High School - 10th Grade
 GED - U S Army
 Evans Business College - 1 year - General Business

ADDITIONAL
TRAINING:

Supervisor Development - Duke Power
 Effective Communications - Duke Power
 Alcohol & Drug Abuse - Duke Power
 OSHA Hazard Recognition - Duke Power
 Effective Writing - Duke Power
 Strategies for Effective Listening - Duke Power
 Fair Employment Practices - Duke Power
 Behavior Reliability - Duke Power
 QA Welding Inspection Program - Duke Power
 Supervisor as a Classroom Instructor - Duke Power
 Appraising Performance - Duke Power

WORK
EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
7-1-77	Present	Welder Foreman	Catawba Nuclear	Duke Power

Supervise and direct 9 welders to ensure quality and production is maintained. Coordinate and assign manpower to appropriate areas according to their requirements. Ensure equipment is maintained in safe and good working condition, establish work priorities according to schedules, promote safety and quality throughout the Welding Craft, evaluate subordinates regularly, provide accurate and timely feedback to supervisor as to manpower needs and status and progression of assignments.

7-1-77	11-17-75	Welding Inspector	Catawba Nuclear	Duke Power
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Welding Inspector: Inspected all welds to ASME, Sec. 1X, ASME, Sec. 3, ANSI B 31.1 and AWS D1.1.

11-17-75	9-24-73	Welder	McGuire Nuclear	Duke Power
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Welder in Reactor Building #2

1-17-73	5-54	Welding & Fitting	Cannon Mills	Kannapolis, NC
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1-54	1-51	U S Army Airborne		
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1-50	1-51	Pipefitter	Grinnell Co.	Charlotte, NC
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DAVID HUGH LLEWELLYN

ATTACHMENT G

PERSONAL:

Business Address: P. O. Box 223
Clover, SC 29710
Telephone: (803) 831-1512 Ext. 369 (Office)

FORMAL
EDUCATION:

Duke University: BSCE 1977
Winthrop College: Graduate work in MBA
1980 - Present

ADDITIONAL
TRAINING:

Advanced Welding Metallurgy - U. of Wisconsin
Extension
Engineer/Professional Training - Duke Power Company
Management Development - Duke Power Company

PROFESSIONAL
INVOLVEMENT:

Registered Professional Engineer - N.C. #10,368
Member - AWS; Chairman, Charlotte Section

WORK EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>CONSTRUCTION SITE</u>	<u>COMPANY</u>
6/77	Present	Associate Field Engineer/ Welding Group Leader	Catawba	Duke Power

Progressed from an entry level engineering position to Welding Technical Group Leader. Overall responsibility for technical support relating to welding. The group acts as an interface between Design/Craft/QA/QC assuring that site welding is performed in accordance with the applicable codes and Duke Power QA Program. I possess a thorough knowledge of ASME B & PV (Sec. II, III, VIII, IX, and XI), ANSI B31.1, and AWS D1.1 Codes. Manage the group's resolution to welding related problems encountered during construction. These include problems encountered with piping, structural steel, plate, and pipe hanger welding within the Reactor, Auxiliary, and Turbine Buildings. Also responsible for the origination of welding process control to assure inspections and pertinent information are documented.

David Hugh Llewellyn
Page 2

Originate Construction Procedures to simplify and detail Design requirements. Responsible for qualification of procedures and welders under ASME, Section IX requirements. Act as the welding contact for audits conducted by USNRC, INPO, ASME, Duke QA, etc.; with responsibility for resolving and responding to their findings. Possess experience in developing reinspection programs using statistical sampling methods to evaluate adverse conditions. Have 2½ years of supervisory experience and currently supervise 13 technical personnel.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)

DUKE POWER COMPANY, et al.)

(Catawba Nuclear Station,
Units 1 and 2))

Docket Nos. 50-413
50-414

TESTIMONY OF W. E. ROGERS, L. R. BARNES, L. W. RUDASILL,
E. G. MCKENZIE, K. R. WEBBER, J. C. SHROPSHIRE, H. R. BARKER,
D. H. LLEWELLYN AND J. R. WILSON REGARDING IN CAMERA

WITNESS #2's

ALLEGATIONS CONCERNING FOREMAN OVERRIDE

1 Q. PLEASE STATE YOUR NAMES, BUSINESS ADDRESSES AND
2 PROFESSIONAL QUALIFICATIONS.

3 Mr. Rogers: My name is W. E. (Bill) Rogers. My business
4 address is Catawba Nuclear Station, P. O. Box 223, Clover, S. C.
5 29710. My current position is Welding Superintendent. I am
6 responsible for Welding at Catawba. My department consists of
7 approximately 550 employees. Prior assignments have included
8 Welding General Foreman, Welding Foreman, Welding Inspector, and
9 Welder with Duke Power. A copy of my professional qualifications
10 is attached (Attachment A).
11

12 A. Mr. Barnes: My name is L. R. Barnes. My business address is
13 Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
14 My current position is Planning and Control Manager for
15 Construction of the Catawba Nuclear Station. A copy of my
16 professional qualifications is attached to Applicants' testimony
17 addressing the Board's Question Concerning the Containment Spray
18 System.

1 Mr. Rudasill: My name is Larry W. Rudasill. My business address
2 is Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
3 My current position is Welding Supervisor in Reactor Building #2.
4 In the past, I have held positions as a Welding Inspector and
5 Welder for Duke at Catawba and McGuire Nuclear Station. A copy
6 of my professional qualifications is attached (Attachment B).

7
8 Mr. McKenzie: My name is Ed G. McKenzie. My business address
9 is Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
10 I am a Pipe Supervisor at Catawba in Reactor Building #2 and have
11 been at Catawba for 6 years. A copy of my professional
12 qualifications is attached (Attachment C).

13
14 Mr. Webber: My name is Kenneth R. Webber. My business
15 address is Catawba Nuclear Station, P. O. Box 223, Clover, S. C.
16 29710. My current position is Pipe Superintendent. I am
17 responsible for pipe erection at Catawba. Past responsibilities
18 include Pipe and Pipe Restraint Superintendent, Welding
19 Superintendent, Welding General Foreman, Welding Foreman and
20 Welder. A copy of my professional qualifications is attached
21 (Attachment D).

22
23 Mr. Shropshire: My name is J. C. Shropshire. My business
24 address is Catawba Nuclear station, P. O. Box 223, Clover, S. C.
25 29710. My current position is Quality Assurance Engineer. I am
26 responsible for the Mechanical, Welding, and NDE Quality Assurance
27 Group. A copy of my professional qualifications is attached to

1 Applicants' testimony addressing the Board's Question Concerning
2 the Containment Spray System.

3 Mr. Wilson: My name is J. R. Wilson. My business address is
4 Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
5 My current position is Welding General Foreman. I am in charge of
6 all the welding activities in Reactor Building #2, UHI Building #2
7 and #2 Dog House. A copy of my professional qualifications is
8 attached (Attachment E).

9
10 Mr. Barker: My name is H. R. Barker. My business address is
11 Catawba Nuclear Station, P. O. Box 223, Clover, S. C. 29710.
12 My current position is Welding Supervisor in Reactor Building #1.
13 In the past, I have held positions as a Welding Inspector and
14 Welder for Duke. A copy of my professional qualifications is
15 attached (Attachment F).

16
17 Mr. Llewellyn: My name is D. H. Llewellyn. My business address
18 is Catawba Nuclear Station, P. O. Box 223, Clover, SC 29710.
19 My present position is group leader of Technical Support - Welding.
20 A copy of my professional qualifications is attached (Attachment G).

21

22 Q. ARE YOU FAMILIAR WITH IN CAMERA WITNESS #2's ALLEGATION
23 THAT UNACCEPTABLE WELDS RESULTED FROM FOREMAN
24 PRESSURE FOR HIGH PRODUCTIVITY AS OPPOSED TO HIGH
25 QUALITY?

1 A. Yes. We have reviewed his testimony. As support for his
2 allegation, the witness raises the following major concerns:

- 3 1. He alleges that his foreman told him to finish his welds so
4 that they looked more uniform, despite the fact that the
5 witness did not believe that this had anything to do with
6 the adequacy of the weld.
- 7 2. He alleges that Buck Henry told him that Henry's foreman
8 pressured him to finish one weld using a certain weld rod
9 that was inappropriate. The witness alleges that Henry
10 further stated that the weld was rejected, Henry's stencil
11 was pulled because of this rejection, and he was unjustly
12 forced to recertify.
- 13 3. The witness alleges that Malcolm Young stated to him that
14 Young was forced by his foreman to weld one Class G
15 weld despite the fact that the fit-up was unacceptable,
16 and because of the poor fit-up, the one weld was
17 rejected. He alleges that Young told him that his stencil
18 was pulled because of this one rejected weld and Young
19 was unjustly forced to recertify.
- 20 4. The witness alleges that M. D. Ray attempted to cover up
21 defects in a weld because he was afraid of foreman
22 pressure.
- 23 5. The witness alleges that his foreman, L. Rudasill,
24 attempted to pressure him to tack weld fit-ups on 2 inch
25 schedule 80 stainless steel pipe for Ed McKenzie's crew in
26 the Reactor Building (Unit 2) without proper paperwork
27 present.

1 6. The witness alleges that welding foremen inappropriately
2 approved welds on construction hangers (which he states
3 are at times safety-related) in order to increase
4 production.
5

6 Q. HAVE YOU INVESTIGATED THE ALLEGATION?

7 A. Yes. This investigation consisted of a review of relevant portions
8 of documents regarding this issue, as well as discussions with
9 welders, welder foremen, general foremen, the welding
10 superintendent, the piping superintendent, and pipe fitters.
11

12 Q. WHAT WAS THE RESULT OF YOUR INVESTIGATION?

13 A. From the investigation, we determined that the witness' specific
14 allegations were not accurate. Further, we could find no instance
15 where foremen sacrificed the quality of work for quantity. On the
16 contrary, foremen are very concerned about quality. In any event,
17 nuclear safety related welds, including any which might have
18 resulted from the alleged poor welder practices, would have been
19 subjected to a number of required inspections and nondestructive
20 examinations to identify and, if necessary, repair unacceptable
21 defects. Accordingly, this allegation does not call into question the
22 safe construction of the plant. Factors which tended to support
23 this determination include those noted below.

24 1. When a welder is certified and renews his certification
25 stamp, that certification is subject to removal if the
26 quality of his welds so warrants. Quality Assurance
27 Procedure I-1 paragraph 4.7 states that renewal of

1 qualification of a welder is required when the Authorized
2 Nuclear Inspector, Construction Technical Support -
3 Welding, or the Project Quality Assurance Engineer raises
4 valid questions regarding the welder's ability to make
5 welds that meet the specifications. In short, when the
6 quality of a welder's work is called into question his
7 stamp may be pulled and he may be required to recertify.
8 Therefore, as the witness has himself stated, there is a
9 great deal of pressure on each certified welder to perform
10 quality welds so that his certification will not be pulled.
11 WER, JCS, DHL, LRB.

12
13 2. A welder's certification may be pulled by QA/QC action at
14 the recommendation of supervision such as his foreman.
15 Contrary to the witness' position, there are occasions
16 where foremen have taken welders from production work
17 and required them to undergo additional training to
18 improve the quality of the welder's work. During these
19 training periods, however, quantity of production is
20 decreased. Indeed two out of three examples noted by
21 the witness in his testimony illustrates instances where
22 the foremen have required additional training to improve
23 quality at the expense of quantity. WER, JCS.

24
25 3. With regard to the witness' allegations concerning Mr.
26 Young, Mr. Young's foreman, when questioned, stated
27 that the incident alleged by the witness did not occur as

1 the witness had described. Indeed, in our conversation
2 with the welder, he stated that he was not pressured by
3 his foreman to get the job done at the sacrifice of
4 quality. However, reports show that on approximately
5 9-30-⁸¹~~80~~, Mr. Young was required to receive additional
6 training and be retested regarding a specific weld
7 procedure. The retest was conducted in October, 1981.
8 Mr. Young passed the test. Significantly, the basis for
9 the retest was failure of two welds, not one as alleged by
10 the witness. Further, Mr. Young's certification was not
11 pulled as alleged. In addition, the unacceptable welds,
12 by the witness' own admission, were not safety-related.
13 In short, despite the fact that Mr. Young was, and still
14 is, a competent welder at the Catawba site, in this
15 instance the foreman sacrificed quantity to assure that
16 quality was maintained, even on a non-safety system. In
17 this case, foreman pressure was to assure quality. WER,
18 HRB, DHL.

- 19
20 4. With regard to the witness' allegations concerning Mr.
21 Henry, Mr. Henry's foreman states that the incident as
22 alleged did not occur as described. Indeed, in our
23 conversation with the welder, he stated that he was not
24 pressured by his foreman to get the job done at the
25 sacrifice of quality. An Employee Report dated 7-14-83
26 documents a reprimand given to Mr. Henry by his
27 supervisor Larry Rudasill because of poor workmanship on

1 four welds on rupture restraints in the Unit 1 reactor
2 building. General Foreman J. R. Wilson's memo to file
3 dated 7-14-83 states that the poor workmanship was
4 discovered by welding supervision before Quality
5 Assurance became involved. The Employee Report states
6 that Henry would be required to recertify on the welding
7 process by taking the L-154 test. Welder Performance
8 Qualification Form I-1B records state that Mr. Henry
9 performed the test on 7/18 - 7/22/83. However, he
10 failed the test due to a rejectable defect discovered
11 by radiography. He retested from 8/2 - 8/5/83 and was
12 recertified on 8-23-83. Significantly, the basis for
13 pulling Mr. Henry's certification was his unacceptable
14 work on four partially completed welds, not one as alleged
15 by the witness. In addition, welding craft management
16 (not QA) was responsible for identifying the need to
17 retest to assure the welder's ability. In short, despite
18 the fact that Mr. Henry was, and still is, a certified
19 welder, craft supervision sacrificed quantity to assure
20 the quality of Mr. Henry's welds. DHL, WER, LWR,
21 JRW.

- 22
- 23 5. With regard to the witness' allegations concerning Mr.
24 Ray, the witness himself states that the foreman was
25 applying pressure to assure quality of the welds.
26 Indeed, in our conversation with the welder, he stated
27 that he was not pressured by his foreman to get the job

1 done at the sacrifice of quality. This is consistent with
2 General Foreman J. R. Wilson's memo to file dated
3 11-17-82 which states that he told M. D. Ray that the
4 quality of his work was unacceptable and that he would
5 be sent to the test shop for one day to evaluate his
6 ability. M. D. Ray's performance was determined to be
7 acceptable and no formal recertification test was given.
8 This example again supports the position that foremen will
9 not sacrifice quality for quantity. JRW, WER, DHL.
10

- 11 6. With regard to the witness' allegations concerning
12 pressure by Mr. Rudasill to perform tack weld fit-ups on
13 pipe for Mr. McKenzie's crew without the paperwork, no
14 records could be located involving this incident, nor did
15 anyone involved have any recollection regarding any
16 direction to tack fit-ups without paperwork. However, it
17 should be noted that the only work in the Reactor
18 Building involving Mr. McKenzie's crew working with 2
19 inch schedule 80 stainless steel pipe where holdpoints for
20 QA signatures on fit-ups were not present (and thus the
21 only possible situation the witness could be referring to)
22 was prefabrication of a temporary bypass around the
23 blowdown heat exchanger. This temporary bypass was
24 required to flush the system without running water
25 through the heat exchanger. After the flush, the
26 temporary bypass was discarded. Prefabrication work on
27 the temporary bypass did not require any paperwork. It

1 should be noted that such situations were not uncommon
2 in the plant. KRW, WER, EGM, JCS.
3

4 In addition, since much of the pipe in the plant is not
5 nuclear safety related and requires no paperwork prior to
6 fitting and welding, a similar type of situation could have
7 occurred in other areas of the plant. It should be noted
8 that as a practical matter it would be totally impractical if
9 not virtually impossible for fit-ups on safety related
10 systems to proceed without appropriate paperwork. To
11 explain, before we ^{begin} being to withdraw piping material from
12 storage to begin a project, piping craft must have the
13 required paperwork which includes the bill of material for
14 the work, the isometric drawings, and QA sign-off forms.
15 The issue clerks need the bill of materials before they
16 will issue materials for the work so that they can sign off
17 that the material has been issued. Further, a cleanliness
18 inspection and sign-off is required prior to fit-up, and
19 QA inspections personnel can not sign-off the cleanliness
20 inspection without the paperwork. Indeed, the sign-off
21 sheet M-4A which the QA inspector signs to signify he
22 has completed the cleanliness inspection is part of the
23 paperwork package. In short, it is virtually impossible
24 to begin work on safety-related systems (which requires
25 QA attention) without the paperwork package. KRW,
26 EGM, JCS, DHL.
27

1 7. With regard to the witness' allegations concerning foreman
2 approval of inadequate welds on construction hangers, it
3 should be noted that in no case are construction hangers
4 used in nuclear safety related applications at Catawba.
5 Thus, the welds described by in Camera Witness #2 are
6 not significant with respect to nuclear safety. Moreover,
7 for such non-safety-related welds, the welding foreman is
8 the individual who approves such welds. In short, this
9 allegation raises no safety-related concerns. KRW, JCS.

RESUME

WILLIAM E ROGERS

ATTACHMENT A

PERSONAL:

Home Address: 161 Weatherwood Street
Rock Hill, S C 29730
Telephone: (803) 366-6877 (Home)
(803) 831-1512 (Office)

FORMAL EDUCATION:

Keowee High School - 1958

ADDITIONAL TRAINING:

Leadership School - U S Navy
Supervisory Development - Duke Power
Management Development - Duke Power
Management Graduate Development - Duke Power
Effective Management by Harbridge House
Effective Writing Seminar - Duke Power
Appraising Performance - Duke Power

PROFESSIONAL INVOLVEMENT:

Member - AWS
Member - Advisory Board for:
Spartanburg Tech College
Tri County Tech College
York Tech College

WORK EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
12-78	Present	Welding Superintendent	Catawba Nuclear Station	Duke Power

Manage Welding craft to accomplish quality welding in accordance with ASME welding codes. Duties include hiring, training, and testing of welders to ASME, Section IV. Managing human resources to produce skilled craftsmen, supervisors, and managers. Through training, development and advancement set up an effective Welding organization. Also, responsible for all pre heat and spot weld heat treating. Responsible for purchasing and scheduling of all equipment to accomplish all of the above. Manage 7 general foremen directly, 45 foreman and 500 craftsmen indirectly.

8-77	12-78	Welding General Foreman	Catawba Nuclear Station	Duke Power
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Manage construction craft welders in Unit 1 Auxiliary Building and pipe fabrication shop to do quality welding to ASME, Section III, AWS codes and all QA and Design criteria. Duties included training and advancing craftsmen and supervisors to positions capable of meeting all construction schedules, and upgrade Duke Power's automatic welding program. Supervised 7 foremen directly and 100 craftsmen indirectly.

WORK
EXPERIENCE: (continued)

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
8-70	8-77	Welding Foreman	McGuire Nuclear Station Oconee Nuclear Station	Duke Power
Supervised welding crews and stress relieving crew in all phases of nuclear power plant construction, such as containment plate, nuclear power piping, mainstream, and feedwater piping. Supervised stress relieving crew on coolant loop piping on Unit 2 Oconee Nuclear Station.				
1-69	8-70	Welding Inspector	Oconee Nuclear Station	Duke Power
Work in all phases of welding inspection, visual, MT, PT, RT				
8-61	1-69	Welder/Fitter		Duke Power Daniel Const. Co. Davis Mechanical Westinghouse
8-58	8-61	SR/SRP 2/c		U S Navy

RESUME

ATTACHMENT B

LARRY RUDASILL

PERSONAL:

Home Address: 4155 Koala Circle
Tega Cay, S C 29715
Telephone: (803) 548-0527 (Home)
(803) 813-1512 (Office)

FORMAL
EDUCATION:

South Mecklenburg High School - 1965
Central Piedmont Community College - Welding, Shop
Math, Shop Science, Blueprint Reading, Shop Manage-
ment, Business Administration, Computer Science,
and Mechanical Courses Related to Motorcycle Repair
and Small Engine Service.

ADDITIONAL
TRAINING:

Effective Listening - Duke Power
Management Principles - Duke Power
Supervisory Development - Duke Power
Alcohol & Drug Abuse - Duke Power
Effective Supervisory Communications - Duke Power
Appraising Performance - Duke Power
Supervisor as a Classroom Instructor - Duke Power
OSHA Training - Duke Power
Level 1 PT Training Course - Duke Power
QC Welding Inspection Program - Duke Power
Planning Workshop - Duke Power

WORK
EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
8-1-78	Present	Welder Foreman	Catawba Nuclear Station	Duke Power

Supervise 10-14 welders in Reactor #2 on carbon and stainless pipe requiring some x-ray, MT, PT, & UT. Ice Condenser fabrication, electrical and mechanical hot and cold penetrations (heavy wall x-ray welding). Supervised in the Auxiliary Building on ASME stainless & carbon steel piping work requiring x-ray, UT, MT, & PT examinations and permanent hangers - Construction, alternate and rigorous and electrical cable tray supports in Auxiliary Building and Reactor. June & July 1982, served on Duke Quality Awareness Committee. One and one-half years as a Welding Instructor for Duke Power Company teaching L-200 and L-300 process.

1-29-76	8-1-78	Welding Inspector	Catawba Nuclear Station	Duke Power
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Completed Welding Inspector training on 2-25-76. Performed duties as Welding Inspector in all areas of Catawba Nuclear Station. Completed training and was certified Level 1 PT NDE Inspector on 5-17-76.

12-29-75	1-29-76	Welder	Catawba Nuclear Station	Duke Power
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Very little work performed on permanent plant during this one month duration.

RESUME

Larry Rudasill

Page 2

WORK

EXPERIENCE: (Cont'd)

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
8-6-73	12-29-75	Welder	McGuire Nuclear Station	Duke Power

While at McGuire, I welded numerous x-ray welds in Turbine and Generator Cooling Tubes, numerous 100% x-ray heavy wall x-ray hot welds, penetrations in Reactor Building #1 requiring x-ray. While at McGuire, I was certified in L-300 process using E-7018, E-6010, E-308-16, with E-308-16 and E309-16 being in the limited position. Was also certified in the L-200 Process using E-70S-2 open butt and consumable inserts, ER308 and ER309 open butt and consumable inserts and aluminum certifications.

1968	1973	Welder/Fabricator	Various	Reeves Sheet Metal Co.
------	------	-------------------	---------	------------------------

While working at Reeves, I worked on numerous tanks, pipe, duct, smoke stacks, and hydraulic cylinders using E7018, E6010, ER308, ER309, E308-16, E309-16, and mig gun on a wide variety of fabrication and welding. While with Reeves, I worked at Duke Power Company's Marshall Steam Station for nine months welding aluminum and stainless steel. I worked at Duke Power Company's River Bend Station on the gas turbine units using E-7018 on plate and tanks. I worked at Duke Power Company's Allen Steam Station for six months, and Duke Power Company's Buck Steam Station for nine months and American Cyanamid Co. for nine months welding aluminum.

1967	1968	Welder	Various	Lockhardt Manufacturing Co
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Stick welding on UL approved stainless and carbon steel doors and door frames.

RESUME

ATTACHMENT C

NAME: Ed McKenzie, Powerhouse Mechanic Supervisor

WORK LOCATION: Catawba Nuclear Station

ADDRESS: Route 3, Box 129-A York, South Carolina 29745

EDUCATION: Lockhart Elementary School
Lockhart High School
GED Received in United States Army
York County Technical College - Mechanical
Engineering - Did not graduate

	<u>FROM</u>	<u>TO</u>
WORK EXPERIENCE: Duke Power Company	9-21-77	Present
Powerhouse Mechanic	9-21-77	10-78
Powerhouse Mechanic Supv	10-78	Present

Powerhouse Mechanic Supervisors' Responsibilities (At Catawba)

- 1) Responsible for coordinating and leading the work activities for a group of Powerhouse Mechanic Learners, Helpers, and Mechanics daily.
- 2) Responsible for erecting approximately thirty safety and non-safety related systems in the RBS (Basement) of Reactors Number One and Two.
- 3) Responsible for Process Control, and Material allocation needed for meeting erection requirements.
- 4) Responsible for ensuring that the work erected under my supervision is per design requirements, safety requirements, and quality control requirements.

	<u>FROM</u>	<u>TO</u>
Daniels Construction Company	1975	1977
Powerhouse Mechanic Supervisor	1975	(3 months)
Powerhouse Mechanic Gen. Foreman	1975	1977

Powerhouse Mechanic General Foreman's Responsibilities (Daniels)

- 1) While assigned to the V C Summer Nuclear Station in Columbia, South Carolina, I was responsible for the welding program in the Reactor Building and the Turbine Building.
- 2) Was loaned to another Daniels Construction Project for approximately twelve weeks. I supervised the replacement of damaged boiler tubes at the Bowaters Construction site in Catawba, South Carolina.
- 3) Served as one of the Welding Technical Advisors for the V C Summer Nuclear Project.

WORK EXPERIENCE: (Cont)

	FROM	TO
<u>Yeargen Construction Company</u>	1974	1975
Welder	1974	(3 months)
Quality Control Supervisor (Amaco Project, Charleston, SC)	1974	1975
 <u>Daniels Construction Company</u>	 1972	 1974
Pipefitter and Welder		
 <u>AME Construction Company</u>	 1971	 1972
Pipefitter and Welder		
 <u>United States Army</u>	 1969	 1971
While in the Army I had formal Welder training (Tig, Mig, Stick, Aluminum, and Oxygen and Acetylene).		
 <u>Florida Steel and Erection</u>	 1969	 (8 months)
Helper in Pipe Fabrication Shop		
 <u>Myers and Chapman Construction</u>	 1967	 1969
Steel Erector and Welder		

INTERESTS AND
ACTIVITIES:

Church, Masonic Lodge #32, Shrine Club, Hunting, and Reading.

PERSONAL:

Married, two children.

RESUME

KENNETH R WEBBER

ATTACHMENT D

PERSONAL:

Home Address: #1 Easy Street
Belmont, N C 28012
Telephone: (704) 825-5667 (Home)
(803) 831-1512 ext. 512 (Office)

FORMAL
EDUCATION:

Anderson Boy's High - 1955

ADDITIONAL
TRAINING:

Advanced Management Training - Duke Power
Effective Management Program by Harbridge House

PROFESSIONAL
INVOLVEMENT:

Member - AWS
Member - Advisory Board for:
Tri-County Tech College
Spartanburg Tech College
York Tech College
Rowan County Tech College

WORK
EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
6-82	Present	Powerhouse Mechanic Superintendent - Pipe	Catawba Nuclear Station	Duke Power

Manage the construction craft to plan, schedule, and erect all piping systems in accordance with ASME III, to support plant start-up of Unit 1 with administrative responsibilities to Unit 2. Duties include allocation of resources, administration of human resources, and management through commodity production curves, cost performance reports, and quality and trend analysis reports. Manage 6 first line managers and 500 craft and supervisors.

1-78	6-82	Powerhouse Mechanic Superintendent Pipe & Support/Restraints	Catawba Nuclear Station	Duke Power
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Duties were same as 6-81 to present with the added responsibilities of support/restraints. Duties also included creating a separate division of craft to erect supports, hiring and training of 300 employees to erect supports to ASME Section III. Managed 9 direct and 1000 indirect.

6-75	1-78	Welding Superintendent	Catawba Nuclear Station	Duke Power
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Managed welding craft to accomplish quality welds in accordance with ASME Section III and AWS welding codes. Set up training program and test welders to ASME Section IX. Modernize Duke's welding program through research and development of automatic processes and applications.

Successfully built, qualified, and welded all containment building welds automatically and showed great cost savings. Other duties included administration of human resources, allocation of resources, and cost performance. Managed 3 direct and 350 indirect.

RESUME

Kenneth R Webber

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WORK

EXPERIENCE: (continued)

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
1-74	1-75	Welding General Foreman	McGuire Nuclear Station	Duke Power

Manage construction craft welders in the Unit 1 Reactor Building. Duties were to accomplish quality welds, high production through safe work practices, and well trained personnel. Managed 6 direct and 90 indirect.

8-70	1-74	Welding General Foreman	Oconee Nuclear Station	Duke Power
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Manage construction craft welders in Units 1,2, & 3 Reactor Buildings. Duties were to manage workforce to accomplish high quality work, high production through safe work practices, and well trained personnel. Managed 9 direct and 150 indirect.

9-69	8-70	Welding Foreman	Oconee Nuclear Station	Duke Power
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Supervised welding crew in Turbine Buildings 1,2, & 3. Duties were welding pipe and structural components.

1-58	9-69	Welder/Fitter		Duke Power Daniel Const. Co. Grinnel Co. Bahnson Co.
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RESUME

ATTACHMENT E

J R WILSON

PERSONAL:

Home Address: 2226 Hands Mill Rd.
York, S C 29745
Telephone: (803) 366-7663 (Home)
(803) 831-1512 (Work)

FORMAL
EDUCATION:

Greer High School - 1960
Welding Course (Ewtectic) - 1960

ADDITIONAL
TRAINING:

Management Principles - Duke Power
Supervisory Development - Duke Power
Effective Listening - Duke Power
Alcohol & Drug Abuse - Duke Power
Effective Supervisory Communications - Duke Power
Appraising Performance - Duke Power
Supervisor as a Classroom Instructor - Duke Power
OSHA Training - Duke Power
Planning Workshop - Duke Power
Managing Stress - Duke Power

WORK
EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
1971	Present	Welder General Foreman	Catawba Nuclear & McGuire Nuclear	Duke Power

Plan and manage all present welding activities for 10 supervisors (120 welders) for Reactor Building #2, Interior & Exterior Dog Houses, and Upper Head Injection Building #2. Work consists of all piping systems, all miscellaneous steel, and all structural steel. Worked 3 years as Welder General Foreman at Oconee Nuclear Station and 7 years at McGuire Nuclear Station in this position.

1969	1971	Welder Foreman	Oconee Nuclear	Duke Power
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Supervised 10-15 welders in welding piping systems, containment plate, structural steel, and miscellaneous steel in Reactor Buildings, Unit 1 and 2.

1968	1969	Senior Welder	Oconee Nuclear	Duke Power
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Supervised 10-15 welders in the absence of foreman at Oconee Nuclear on piping systems, containment plate, miscellaneous steel, and structural steel in Units 1 & 2.

1967	1968	Welder	Oconee Nuclear	Duke Power
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Welded containment plate, condensor cooling water system, structural steel, miscellaneous steel, and general piping systems at Oconee Plant.

RESUME

J-R Wilson

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WORK

EXPERIENCE: (Cont'd)

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
1963	1967	Welder & pipefitter	Various	Daniel Const. Co.
Welded and fit piping systems in various plants in several states. (North Carolina, South Carolina, Georgia, & Tennessee).				
1962	1963	Welder & pipefitter	Lyman Printing & Finishing Co.	M Lowenstein & Sons
1961	1962	Welder & mechanic	Southern Worsted Mill	

RESUME

ATTACHMENT F

HARRY BARKER

PERSONAL:

Home Address: Rt. 1, Box 318
 Rock Hill, S C 29730
 Telephone: (803) 328-0785 (Home)
 (803) 831-1512 (Work)

FORMAL
EDUCATION:

Landis High School - 10th Grade
 GED - U S Army
 Evans Business College - 1 year - General Business

ADDITIONAL
TRAINING:

Supervisor Development - Duke Power
 Effective Communications - Duke Power
 Alcohol & Drug Abuse - Duke Power
 OSHA Hazard Recognition - Duke Power
 Effective Writing - Duke Power
 Strategies for Effective Listening - Duke Power
 Fair Employment Practices - Duke Power
 Behavior Reliability - Duke Power
 QA Welding Inspection Program - Duke Power
 Supervisor as a Classroom Instructor - Duke Power
 Appraising Performance - Duke Power

WORK
EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>PROGRAM</u>	<u>COMPANY</u>
7-1-77	Present	Welder Foreman	Catawba Nuclear	Duke Power

Supervise and direct 9 welders to ensure quality and production is maintained. Coordinate and assign manpower to appropriate areas according to their requirements. Ensure equipment is maintained in safe and good working condition, establish work priorities according to schedules, promote safety and quality throughout the Welding Craft, evaluate subordinates regularly, provide accurate and timely feedback to supervisor as to manpower needs and status and progression of assignments.

7-1-77	11-17-75	Welding Inspector	Catawba Nuclear	Duke Power
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Welding Inspector: Inspected all welds to ASME, Sec. 1X, ASME, Sec. 3, ANSI B 31.1 and AWS D1.1.

11-17-75	9-24-73	Welder	McGuire Nuclear	Duke Power
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Welder in Reactor Building #2

1-17-73	5-54	Welding & Fitting	Cannon Mills	Kannapolis, NC
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1-54	1-51	U S Army Airborne		
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1-50	1-51	Pipefitter	Grinnell Co.	Charlotte, NC
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DAVID HUGH LLEWELLYN**ATTACHMENT G****PERSONAL:**

Business Address: P. O. Box 223
Clover, SC 29710
Telephone: (803) 831-1512 Ext. 369 (Office)

**FORMAL
EDUCATION:**

Duke University: BSCE 1977
Winthrop College: Graduate work in MBA
1980 - Present

**ADDITIONAL
TRAINING:**

Advanced Welding Metallurgy - U. of Wisconsin
Extension
Engineer/Professional Training - Duke Power Company
Management Development - Duke Power Company

**PROFESSIONAL
INVOLVEMENT:**

Registered Professional Engineer - N.C. #10,368
Member - AWS; Chairman, Charlotte Section

WORK EXPERIENCE:

<u>FROM</u>	<u>TO</u>	<u>TITLE</u>	<u>CONSTRUCTION SITE</u>	<u>COMPANY</u>
6/77	Present	Associate Field Engineer/ Welding Group Leader	Catawba	Duke Power

Progressed from an entry level engineering position to Welding Technical Group Leader. Overall responsibility for technical support relating to welding. The group acts as an interface between Design/Craft/QA/QC assuring that site welding is performed in accordance with the applicable codes and Duke Power QA Program. I possess a thorough knowledge of ASME B & PV (Sec. II, III, VIII, IX, and XI), ANSI B31.1, and AWS D1.1 Codes. Manage the group's resolution to welding related problems encountered during construction. These include problems encountered with piping, structural steel, plate, and pipe hanger welding within the Reactor, Auxiliary, and Turbine Buildings. Also responsible for the origination of welding process control to assure inspections and pertinent information are documented.

David Hugh Llewellyn
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Originate Construction Procedures to simplify and detail Design requirements. Responsible for qualification of procedures and welders under ASME, Section IX requirements. Act as the welding contact for audits conducted by USNRC, INPO, ASME, Duke QA, etc.; with responsibility for resolving and responding to their findings. Possess experience in developing reinspection programs using statistical sampling methods to evaluate adverse conditions. Have 2½ years of supervisory experience and currently supervise 13 technical personnel.

APPLICANTS' WITNESS ON IN CAMERA WITNESS #2's ALLEGATIONS

1. Laminations
2. Foreman Override
3. Radiographs
4. Welding Material