

# TEXAS UTILITIES GENERATING COMPANY

SKYWAY TOWER • 400 NORTH OLIVE STREET, L.B. 81 • DALLAS, TEXAS 75201

December 14, 1984

TNRC-84056

BILLY R. CLEMENTS  
VICE PRESIDENT, NUCLEAR OPERATIONS

Mr. Darrell G. Eisenhut  
Director, Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Comanche Peak Steam Electric Station Shift Staffing

Dear Mr. Eisenhut:

The attached information supplements our transmittal TNRC-84016, dated June 8, 1984 and provides documentation of the completion of the Shift Advisor training and certification program at the Comanche Peak Steam Electric Station.

Five Shift Advisors have completed certification and are currently on shift. Attachment 1 is documentation of the upgrade training provided to advisors scoring below 80% on the week four examination. Attachment 2 is a copy of the completed Shift Advisor Oral Review and Certification form for each advisor. Mr. Ralph Cooley, Operator Licensing Section Chief, NRC Region IV, observed an oral examination conducted for one of the advisors. The complete examination results for the Shift Advisor that had not completed training at the time of our June 8, 1984, submittal are also provided in Attachment 3.

The following Shift Advisors are trained, certified and on shift:

David R. Campbell  
Hubert C. Crummey  
Frank D. Pauli  
Lawrence J. Ryan  
Steve Stevens

Based on their experience at operating commercial plants similar to Comanche Peak, their experience at Comanche Peak and their successful completion of the Shift Advisor Qualification and Training program, the above listed advisors are qualified to perform advisory duties on operating shifts during the startup and initial operation of Comanche Peak Unit 1.

Sincerely,

*Billy R. Clements*

BRC/jg

Attachments

8412210136 841214  
PDR ADOCK 05000455  
V PDR

m003  
1/1

cc: R. A. Cooley, Section Chief  
Operator Licensing  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 1000  
Arlington, Texas 76011

L. P. Crocker  
Division of Human Factors Safety  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

J. S. Marshall (1L)  
PIMS

ATTACHMENT 1

WEEK FOUR EXAMINATION  
UPGRADE TRAINING

TNO-84937

TEXAS UTILITIES GENERATING COMPANY

OFFICE MEMORANDUM

To L. G. Barnes Glen Rose, Texas June 7, 1984

Subject Shift Advisor Training  
Week 4 Exam Results

<u>Grade</u>	<u>Student</u>
73%	D. E. Burton ✓
69%	D. R. Campbell ✓
85%	H. C. Crummey
77%	L. J. Ryan ✓
79%	S. Stevens ✓
77%	Class Average

Week 3 and Week 4 material covered on Week 4 exam.

  
Tackett

PHT;lml

TRAINING DEPARTMENT USE	
Reviewed by Director, Nuclear Training or Training Supervisor	
INITIALS <i>MS</i>	DATE <i>8/20/84</i>

# TRAINING SESSION

NOT-104-3 Form 3 Rev. 0

TO: Training Supervisor

FROM: L. G. Barnes

SUBJECT: Training Session

TOPIC Shift Advisor Upgrade Training

DATE 6-13-84

CONDUCTED BY Self Study

DURATION 6 weeks

## I. Attendees

Dave Campbell

## II. Material Covered

Read:

1. EPP-304, Protection Action Guidelines  
Parts 1.0, 3.0, 3.3 and 3.4  
Attachments 3 through 8
2. CPSES Nuclear Systems Volume 4  
Chapter XI-3, Heat Transfer, Parts 5.1 and 5.2  
Chapter XI-5, Nuclear Power Distribution, Section 2.2.C
3. CPSES Nuclear Systems, Volume 5  
Chapter XIII-3, Decreases in Heat Removal by the Secondary  
Plant Section 6.3

(continued on next page)

*L. G. Barnes / Ops. Supr.*

*8/18/84*

*Dave Campbell*

SHIFT ADVISOR

*7-18-84*

Name Title

Date



7-1-84

II. Material Covered (continued)

4. CPSES Technical Specifications  
Section 6.9.1.10.C Prompt Notification with Written Followup
5. ✓ CPSES Nuclear Systems, Volume 5  
Chapter XIII-6, Reactivity and Power Distribution Anomalies  
Section 1.1
6. Title 10 Part 100 of the Code of Federal Regulations  
10 CFR 100.11(a)(1)
- ✓ 7. CPSES Nuclear Systems, Volume 5  
Chapter XIII-9, Radiological Release  
Sections 2.3, 3/3 and 5.3
- ✓ 8. CPSES Emergency Response Guidelines  
EOP-0.0, Attachment 1, Step 1 - RCP Trip Criteria
9. Westinghouse Owner's Group Emergency Response Guideline Seminar,  
Volume II-A  
E-O, Basis for Steps in E-O, Step 28  
E-O, Appendix A
- ✓ 10. CPSES Nuclear Systems Volume 3  
Chapter VII-4, Section 4.3 and 5.1
- ✓ 11. CPSES System Operating Procedures Manual  
Volume III, SOP-609A, Diesel Generator System  
Sections 3.2, 3.3 and 3.4  
Section 5.2 - CAUTION rule following step 5.2.1.1

~~TAKE:~~

~~Makeup exam during week of July 23 -27 on above subject material.~~

READ AND REVIEWED THE ABOVE SUBJECT'S

MAKEUP EXAM NOT REQUIRED

Training Department Use	
Reviewed by Director, Nuclear Training Training Supervisor	
ALS - <i>MM</i>	DATE <i>7/31/84</i>

# TRAINING SESSION

NOT-104-3 Form B Rev. 0

TO: Training Supervisor

FROM: L. G. Barnes

SUBJECT: Training Session

TOPIC Shift Advisor Upgrade Training

DATE 6-13-84

CONDUCTED BY Self Study

DURATION 6 weeks

## I. Attendees

Lawrence Ryan

## II. Material Covered

### Read:

1. EPP-304 - Protection Action Guidelines  
Parts 1.0, 3.0 and 3.3
2. EPP-304 - Protection Action Guidelines  
Part 3.4 and Attachment 3 through 8
3. CPSES Nuclear Systems Volume 5  
Chapter XIII-3 Decreases in Heat Removal by the Secondary Plant  
Section 6.3
4. CPSES Nuclear Systems Volume 5, Chapter XIII-3  
Sections 4.1, 4.2 and 4.3

(continued on next page)

*L. G. Barnes / Operations Supervisor*

*7/25/84*

## II. Material Covered (continued)

5. Westinghouse Thermal-Hydraulic Principles and Applications  
to the PWR - Volume II  
Chapter 12, pp. 25 & 26 - Transient Operation  
pp. 43 & 44 - Normal Down Power Transients
6. CPSES Technical Specifications,  
Section 6.9.1.10.d - Prompt Notification with Written  
Followup
7. CPSES Nuclear Systems - Volume 5  
Chapter XIII-6 Reactivity and Power Distribution Anomalies  
Section 1.1
8. CPSES Nuclear Systems Volume 5  
Chapter XIII-8 Increase in Reactor Coolant Inventory  
Sections 2.0, 3.0 and 4.0
9. CPSES Emergency Response Guidelines  
EOP-0.0 Attachment 1, step 1 - RCP Trip Criteria

*Lawrence J. Ryan*  
6-22-84



TRAINING DEPARTMENT USE	
Reviewed by Director, Nuclear Training or Training Supervisor	
INITIALS <i>lv</i>	DATE <i>7/24/84</i>

*By 7.23-84*

# TRAINING SESSION

NOT-104-3 Form 3 Rev. 0

TO: Training Supervisor

FROM: L. G. Barnes

SUBJECT: Training Session

TOPIC Shift Advisor Upgrade Training

DATE 6-13-84

CONDUCTED BY Self Study

DURATION 6 weeks

## I. Attendees

Steve Stevens

## II. Material Covered

Read:

- 2* 1. EPP-304, Protection Action Guidelines  
Parts 1.0, 3.0 and 3.3
- 2* 2. CPSES Nuclear Systems, Volume 5  
Chapter XIII-3, ~~D~~ecreases in Heat Removal by the Secondary Plant  
Section 6.3 *In*
- 2* 3. CPSES Nuclear Systems, Volume 5, Chapter XIII-3  
Sections 4.1, 4.2 and 4.3
- 2* 4. Westinghouse Thermal-Hydraulic Principles and Applications to the  
PWR-Volume II  
Chapter 12 - pp. 25 & 26 - Transient Operation  
pp. 43 & 44 - Normal Down Power Transients

(continued on next page)

*L. G. Barnes*

*Ops. Supervisor*

*7/23/84*

II. Material Covered (continued)

- ? 5. CPSES Technical Specifications  
Section 6.9.1.10.C Prompt Notification with Written Follow-up
- ⑥ 6. CPSES Nuclear Systems, Volume 5  
Chapter XIII-6 Reactivity and Power Distribution Anomalies  
Section 1.1
- ⑦ 7. CPSES Emergency Response Guidelines  
EOS-0.1, Reactor Trip Recovery, Step 8 - Verify Natural Circulation
- ⑧ 8. CPSES Nuclear Systems, Volume 5  
Chapter XIII-12, Natural Circulation  
Section 4.3
- ⑨ 9. CPSES Nuclear Systems, Volume 5  
Chapter XIII-7, Decrease in RC Inventory  
Section 4.1.f
- ⑩ 10. CPSES Emergency Response Guidelines  
EOP-0.0 Step 31, Check for RCS to Secondary Integrity  
EOP-3.0 Step 1, Identify Ruptured Steam Generator(s)
- ⑪ 11. CPSES Emergency Response Guidelines  
FRH-0.1, Response to Loss of Secondary Heat Sink  
Steps 2, 5, 10 and 15

ATTACHMENT 2

ORAL REVIEW AND CERTIFICATION FORMS

COMANCHE PEAK STEAM ELECTRIC STATION  
SHIFT ADVISOR ORAL REVIEW AND CERTIFICATION

SHIFT ADVISOR DAVE CAMPBELL

☒ Qualifications confirmed LB Sudil 10/18/84  
Operations Superintendent Date

☒ General Training Complete

☒ Study

☒ General Employee Training

☒ Study

☒ Respiratory Protection Training  
(Optional)

☒ Study

☒ Radiation Worker Training

[Signature]

Director, Nuclear Training

10/25/84

Date

☒ Study

☒ Specialty Training Complete

[Signature]

Director, Nuclear Training

10/25/84

Date

☒ Study

☒ Procedure Training Complete

L. H. Barnes

Operations Supervisor

10/18/84

Date

☒ Study

☒ Oral Review

☒ Study

☒ Understands responsibilities and authorities (ODA-102)

☒ Study

☒ Understands initial and recurrent training requirements  
(TRA-299)

Comments ( Additional comment pages attached: )

Attached as the Training Session Form for Shift Advisor Upgrade  
Training

Certification of Qualifications and Training Completion

<u>L. H. Barnes</u>	<u>1 Operations Supervisor</u>	<u>10-16-84</u>
Signature	Title	Date
<u>LB Sudil</u>	<u>1 Operations Engineer</u>	<u>10/18/84</u>
Signature	Title	Date
<u>LB Sudil</u>	<u>1 Operations Superintendent</u>	<u>10/18/84</u>
Signature	Title	Date

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Dave Campbell

Date: 10-2-84

START: 2:30 P.M.

FINISH: 5:22 P.M.

Review Panel Members: R. B. Seidel

J. J. Allen

L. G. Barnes

NEEDS TO REVIEW THE FOLLOWING:

- RX TRIP AND ST. SIGNALS (TRAINING MANUAL III-9)
- MITIGATING CORE DAMAGE; H<sub>2</sub> PRODUCTION AND REMOVAL (MCD LESSON XIII-16.)
- ECCS LESSON NOTES (HOT LEG RECIRCULATION). TRAINING MANUAL SECTION II-8.

Comments: NO MAJOR PROBLEMS. REVIEW OF THE ABOVE AREAS WILL  
SATISFY QUALIFICATION KNOWLEDGE REQUIREMENT.

Grade:

*R. B. Seidel*  
10/8/84

S... Satisfactory

M... Marginal

U... Unsatisfactory



SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Dave Campbell

Date: 10-2-84

Time begin: 2:30 PM

Time end: 5:25 PM

Review Panel Members: R. B. Seidel

J. J. Allen

L. G. Barnes *L. G. Barnes*

Comments: Dave had <sup>no</sup> major weaknesses. He should receive 1) lot leg recondition, 2) P-7  
and P-10 interlocks, and 3) circ. water makeup to the SSU. He was a little weak on ERO's  
but this should be taken care of in Rev. 1 training.

*J. J. Allen*

Grade:

S... Satisfactory

M... Marginal

U... Unsatisfactory

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Dave Campbell

Date: 10-2-84

Review Panel Members: R. B. Seidel  
J. J. Allen  
L. G. Barnes

Comments: Work was done in Emergency Procedures. This should  
be corrected by attendance in ERM Post Training Lecture. Should  
review the functions of NLS and Sub early Margin Monitor.

Grade:

- S... Satisfactory
- M... Marginal
- U... Unsatisfactory

*John Allen* 10/8/84

TRAINING DEPARTMENT USE	
Reviewed by Director, Nuclear Training or Training Supervisor	
INITIALS	DATE

# TRAINING SESSION

NOT-104-3 Form B Rev. 0

TO: Training Supervisor

FROM: L. G. Barnes

SUBJECT: Training Session

TOPIC Shift Advisor Upgrade Training

DATE 10-8-84

CONDUCTED BY Self-Study

DURATION \_\_\_\_\_

## I. Attendees

Dave Campbell

## II. Material Covered

Review the following:

- Rx. Trip and SI signals (Training Manual III - 9)
- Mitigating Core Damage; H<sub>2</sub> production and removal (MCD Lesson XIII - 16.2)
- ECCS Lesson Notes (Hot Leg Recirculation). (Training Manual, Section II - 8)
- N-16 (Lesson III - 5.2) (Lesson III - 14)
- Subcooling Margin Monitor (Lesson
- P-7 and P-10 Interlocks (Lesson III - 9)
- Circ. Water Makeup to the SSW (Lesson VIII - 12)

L. G. Barnes / Ops. Supervisor

Name, Title

10-17-84

Date

COMANCHE PEAK STEAM ELECTRIC STATION  
SHIFT ADVISOR ORAL REVIEW AND CERTIFICATION

SHIFT ADVISOR

Clay Crumney



Qualifications confirmed

[Signature]

1 7/30/84

Operations Superintendent

Date



General Training Complete



General Employee Training



Respiratory Protection Training  
(Optional)



Radiation Worker Training

*Don't K.*

[Signature]

1 8/3/84

Director, Nuclear Training

Date



Specialty Training Complete

[Signature]

1 8/3/84

Director, Nuclear Training

Date



Procedure Training Complete

[Signature]

1 7/17/84

Operations Supervisor

Date



Oral Review



Understands responsibilities and authorities (ODA-102)



Understands initial and recurrent training requirements  
(TRA-299)

Comments ( \_\_\_\_\_ Additional comment pages attached: ) \_\_\_\_\_

Attached is the Training Session Form for Shift Advisor

Upgrade Training.

Certification of Qualifications and Training Completion

<u>[Signature]</u>	<u>1 Operations Supervisor</u>	<u>1 10-16-84</u>
Signature	Title	Date
<u>[Signature]</u>	<u>1 Operations Engineer</u>	<u>1 10/16/84</u>
Signature	Title	Date
<u>[Signature]</u>	<u>1 Operations Superintendent</u>	<u>10/18/84</u>
Signature	Title	Date

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Clay Crumney

Date: September 25, 1984

START: 2:57 P.M.

FINISH: 5:16 P.M.

Review Panel Members: R. B. Seidel

L. G. Barnes

J. J. Allen

Comments: NO MAJOR WEAKNESSES. CANDIDATE SHOULD REVIEW THE FOLLOWING  
REFUELING PROCEDURES: RFD-101, RFD-302, RFD-402 AND ISU-001A.  
SHOULD ALSO REVIEW RCP LESSON NOTES, SECTION II-1.4. NO RETEST REQUIRED  
FOR THESE ITEMS.

Grade:

S... Satisfactory  
M... Marginal  
U... Unsatisfactory

*R. B. Seidel*  
10/1/84



SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Clay Crumney

Date: September 25, 1984

Time Start: 2:10 P.M.

Time Complete: 5:05 P.M.

Review Panel Members: R. B. Seidel

L. G. Barnes *L.G. Barnes*

J. J. Allen

Comments: Clay needs to review the following weak areas: 1) CEV vent path, 2) CVCS  
functions and Regen. HX purposes, 3) ECCS Final Acceptance Criteria, 4) Fuel Transfer Cans and  
Appendix interlocks and SFR design criteria, and Hahn work in plant. No major weaknesses.

Grade:

S... Satisfactory

M... Marginal

*L. Barnes* 10/8/84

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Clay Crumney

Date: September 25, 1984

Review Panel Members: R. B. Seidel

L. G. Barnes

J. J. Allen

Comments: No unsat areas. Pencil Jumps and Little Head Catch.

Grade:

S... Satisfactory

M... Marginal

*John Allen* 10/6/84

TRAINING DEPARTMENT USE	
Reviewed by Director, Nuclear Training or Training Supervisor	
INITIALS	DATE

# TRAINING SESSION

NOT-104-3 Form B Rev. 0

TO: Training Supervisor

FROM: L. G. Barnes

SUBJECT: Training Session

TOPIC Shift Advisor Upgrade Training

DATE 10-8-84

CONDUCTED BY Self-Study

DURATION \_\_\_\_\_

## I. Attendees

Clay Crummey

## II. Material Covered

Review the following procedures:

- RFO-101
- RFO-302
- RFO-402
- ISU-001A
- STA-602

Review the following CPSES Lesson Notes:

- Section VIII - 6, CEV Discharge Paths
- Section II - 1.4, RCP's
- Section II - 10, Fuel Transfer Car and Upender Interlocks
- Section II - 2, CVCS Functions and Purpose of Regen, HX
- ECCS Final Acceptance Criteria
- Halon Uses

L. G. Barnes / Ops. Supervisor

Name, Title

10-16-84  
Date

COMANCHE PEAK STEAM ELECTRIC STATION  
SHIFT ADVISOR ORAL REVIEW AND CERTIFICATION

SHIFT ADVISOR F. PAULI

- ☒ Qualifications confirmed RB Sedell 10/18/84  
Operations Superintendent Date
- ☒ General Training Complete
- ☒ General Employee Training ☒ Respiratory Protection Training  
(Optional)
- ☒ Radiation Worker Training
- 9/2/84 Director, Nuclear Training 9/2/84  
Date Date
- ☒ Specialty Training Complete 9/2/84 Director, Nuclear Training 9/2/84  
Date Date
- ☒ Procedure Training Complete L. D. Barnes 8/31/84  
Operations Supervisor Date
- ☒ Oral Review
- ☒ Understands responsibilities and authorities (ODA-102)
- ☒ Understands initial and recurrent training requirements  
(TRA-299)

Comments ( 2 Additional comment pages attached: )

Exam also proctored by Spade Couley (Region III NRC). Attached  
are his comments of weak areas. Also attached is a Training  
Session Form for upgrade training.

Certification of Qualifications and Training Completion

<u>L. D. Barnes</u>	<u>1 Operations Supervisor</u>	<u>10-16-84</u>
Signature	Title	Date
<u>RB Sedell</u>	<u>1 Operations Engineer</u>	<u>10/16/84</u>
Signature	Title	Date
<u>RB Sedell</u>	<u>1 Operations Superintendent</u>	<u>10/18/84</u>
Signature	Title	Date

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Frank Pauli

Date: Sept. 18, 1984

Review Panel Members: R. B. Seidel *RBS*

START: 1:30 P.M.

FINISH: 4:00 P.M.

L. G. Barnes

J. J. Allen

Individual specific problems. Generic area of weakness was in AC ELECTRICAL / DIESEL Generation. RECOMMEND THAT HE STUDY LESSON PLANS AS FOLLOWS:

VII.1 A.C. DISTRIBUTION

VII.2 DC POWER SUPPLY

VII.3 SWITCHYARD

VII.4 DIESEL AND AUXILIARIES.

This <sup>will</sup> ~~should~~ be followed by AN ORAL OR WRITTEN QUIZ TO BE ADMINISTERED BY THE REVIEW PANEL.

Comments: With the above upgrade training and that recommended by the other panel members, Mr. Pauli will be well-suited to perform Shift Advisor duties.

Grade:

*RBS*  
7/18/84

P... Satisfactory

F... Unsatisfactory



SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Frank Pauli

Date: Sept. 18, 1984

Time Start: 1:30 PM

Time Finish: 3:58 PM

Review Panel Members: R. B. Seidel

L. G. Barnes *L.G.B.*

J. J. Allen

Comments: Weak areas appear to be electrical distribution and crew system.  
I recommend that Frank review and read electrical distribution lesson plans. I also  
recommend that he review the interlock associated with the fuel transfer car and  
upender. *L. G. Barnes 9/18/84*

Grade:

P... Satisfactory

F... Unsatisfactory

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Frank Pauli

Date: Sept. 18, 1984

Review Panel Members: R. B. Seidel

J. G. Barnes

J. J. Allen

Comments: Appear to be a little weak on AFW pump start signal.  
Need to self review AFW start sequence. signals.

*John L. Allen*

Grade:

P... Satisfactory

F... Unsatisfactory

## NRC Recommendations

1. Diesel / Electric
2. ENERGY PLANNING
3. SHIFT ADVISOR DUTIES.
4. CCW
5. H<sub>2</sub> production in containment.
6. Fuel Handling
7. Emergency Response
8. Plant Issues

TRAINING DEPARTMENT USE	
Reviewed by Director, Nuclear Training or Training Supervisor	
INITIALS	DATE

# TRAINING SESSION

NOT-104-3 Form B Rev. 0

TO: Training Supervisor

FROM: L. G. Barnes

SUBJECT: Training Session

TOPIC Shift Advisor Upgrade Training

DATE Sept. 19, 1984

CONDUCTED BY Self-Study

DURATION \_\_\_\_\_

## I. Attendees

Frank Pauli

## II. Material Covered

1. Study CPSES Lesson Plans as follows:  
A.C. Distribution, VII.1  
D.C. Power Supply, VII.2  
Switchyard, VII.3  
Diesels and Auxiliaries, VII.4
2. Take an oral or written quiz over the above subjects. Quiz to be administered by the Review Panel.
3. Review the AFW Pump start signals.
4. Review the CCW/SSW interface.
5. Review the Fuel Transfer Car interlocks.

*L. G. Barnes / Ops. Supervisor*

*9/28/84*

*Pauli, Shift Advisor*

*9/28/84*

Name, Title

Date

1. Q. Discuss the Diesel Generator controls on the MCB.

Response SATISFACTORY

START: 3:50 P.

FINISH: 4:35 P.

2. Q. Briefly discuss the layout of the 345KV Switchyard.

Response Adequate

3. Q. Why general types of equipment are located in the Switchyard Relay House?

General Response - SATISFACTORY.

4. Q. What supplies power to DC lighting?

Response SATISFACTORY.

5. Q. What plant areas are supplied with essential lighting?

6. Q. List the power supplies for the safety-related 6.9 KV switchgear and their sources.

SATISFACTORY RESPONSE

7. Q. Draw the AC Distribution System for Unit One down to the 480 volt buses. Label the buses.

SATISFACTORY RESPONSE.

8. Q. List and describe three breaker interlocks. Do not describe in detail--simply tell what they do.

Adequate response

9. Q. Describe the power lineup to a vital instrument bus.

SATISFACTORY RESPONSE.

10. Q. How does an instrument bus inverter work?

SATISFACTORY RESPONSE

11. Q. What is powered from 6.9 KV and 480V ESF buses?

ADEQUATE RESPONSE

12. Q. What is at-power lineup?

SATISFACTORY RESPONSE.

13. Q. Can bus 1EA1 power bus 1EA2?

SATISFACTORY RESPONSE.

14. Q. What are the functions of the following 7G switches:

- a. Auto
- b. Manual Emergency
- c. Manual test
- d. Governor adjust
- e. Voltage adjust

SATISFACTORY RESPONSE

15. Q. What is normal at-power electrical line-up for the 6.9 KV buses?

Response SATISFACTORY

SATISFACTORY upgrade exam.

*[Signature]*  
10/11/84



1. Q. Discuss the Diesel Generator controls on the MCB. P<sup>-</sup>
2. Q. Briefly discuss the layout of the 345KV Switchyard. M
3. Q. Why general types of equipment are located in the Switchyard Relay House? P
4. Q. What supplies power to DC lighting? P
5. Q. What plant areas are supplied with essential lighting?
6. Q. List the power supplies for the safety-related 6.9 KV switchgear and their sources. P
7. Q. Draw the AC Distribution System for Unit One down to the 480 volt buses. Label the buses. M
8. Q. List and describe three breaker interlocks. Do not describe in detail--simply tell what they do.
9. Q. Describe the power lineup to a vital instrument bus. P
10. Q. How does an instrument bus inverter work? P
11. Q. What is powered from 6.9 KV and 480V ESF buses? P
12. Q. What is at-power lineup?
13. Q. Can bus 1EA1 power bus 1EA2? P<sup>-</sup>
14. Q. What are the functions of the following DG switches:
- a. Auto
  - b. Manual Emergency
  - c. Manual test
  - d. Governor adjust
  - e. Voltage adjust
15. Q. What is normal at-power electrical line-up for the 4KV buses? M

Mr. Pauli's upgrade is satisfactory.

L. Bann 10/11/84

ORAL REEXAM - FRANK PAULI

1. Q. Discuss the Diesel Generator controls on the MCB.
2. Q. Briefly discuss the layout of the 345KV Switchyard. *Need to review Switchyard layout.* (M)
3. Q. Why general types of equipment are located in the Switchyard Relay House? *Need to do a walkthrough the Switchyard.*
4. Q. What supplies power to DC lighting? (S)
5. Q. What plant areas are supplied with essential lighting?
6. Q. List the power supplies for the safety-related 6.9 KV switchgear and their sources. *OK.* (S-) *From 4 480V Busses.*
7. Q. Draw the AC Distribution System for Unit One down to the 480 volt buses. Label the buses. *OK.* (S)
8. Q. List and describe three breaker interlocks. Do not describe in detail--simply tell what they do.
9. Q. Describe the power lineup to a vital instrument bus.
10. Q. How does an instrument bus inverter work?
11. Q. What is powered from 6.9 KV and 480V ESF buses?
12. Q. What is at-power lineup? (S)
13. Q. Can bus 1EA1 power bus 1EA2? *no* (S)
14. Q. What are the functions of the following DG switches:
- a. Auto
  - b. Manual Emergency
  - c. Manual test
  - d. Governor adjust
  - e. Voltage adjust
15. Q. What is normal at-power electrical line-up for the <sup>6.9KV</sup>~~48V~~ buses? *OK.* (S)

John J. All

10/11/87

COMANCHE PEAK STEAM ELECTRIC STATION  
SHIFT ADVISOR ORAL REVIEW AND CERTIFICATION

SHIFT ADVISOR LAWRENCE J. RYAN

☒ Qualifications confirmed RB Seidl 1 10/18/84  
Operations Superintendent Date

☒ General Training Complete

☒ General Employee Training ☒ Respiratory Protection Training  
(Optional)

☒ Radiation Worker Training

[Signature] 1 8/6/84  
Director, Nuclear Training Date

☒ Specialty Training Complete

[Signature] 1 8/6/84  
Director, Nuclear Training Date

☒ Procedure Training Complete

[Signature] 1 8/13/84  
Operations Supervisor Date

☒ Oral Review

☒ Understands responsibilities and authorities (ODA-102)

☒ Understands initial and recurrent training requirements  
(TRA-299)

Comments ( 1 Additional comment pages attached: ) \_\_\_\_\_

Attached is the Training Session Form for Shift Advisor Upgrade  
Training.

Certification of Qualifications and Training Completion

<u>[Signature]</u>	<u>1 Operations Supervisor</u>	<u>1</u>	<u>10-16-84</u>
Signature	Title		Date
<u>[Signature]</u>	<u>1 Operations Supervisor</u>	<u>1</u>	<u>10/16/84</u>
Signature	Title		Date
<u>RB Seidl</u>	<u>Operations Superintendent</u>	<u>1</u>	<u>1 8/84</u>
Signature	Title		Date

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: L. J. RYAN

Date: SEPTEMBER 11, 1984

Review Panel Members: J. J. ALLEN

EXAM START: 2:30 P.M.

EXAM COMPLETE: 5:00 P.M.

L. G. BARNES

R. B. SEIDEL

ADVISOR COMMENTS:

- Will watch for problems, ensure paperwork is in proper order, TYPICAL PITFALLS.
- Will not confine duties to specifically watching Licensed Operators.
- Intends to review Rev. 1 procedures. Will attend training on ERG (Rev. 1) procedures.

Comments: ONLY QUESTIONS WITH GRADES WERE ASKED AND GRADED.  
NOT ALL QUESTIONS NEED TO BE ASKED. ATTEMPT TO COVER EACH  
MAJOR AREA.

Recommend that Mr. Ryan review Integrated Plant Operating  
procedures. Also recommended reviewing weak areas (F & P-).  
Grade:

P... Satisfactory

F... Unsatisfactory

*R. B. Seidel*  
9/11/84

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: L. J. Ryan

Date: Sept. 11, 1984

Time Start: 2:30 PM

Review Panel Members: R. B. Seidel

Time Finish: 5:00 PM

L. G. Barnes

J. J. Allen

Comments: Would recommend a review of ERG's for sound content and  
familiarity with procedure. L. G. Barnes 9/11/84

Grade:

P... Satisfactory

F... Unsatisfactory



SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: L. Ryan

Date: 9/11/84

Review Panel Members: R.B. Seidel

L.G. Barnes

J.J. Allen

Comments: Need to review ERG and integrated plant operation  
procedure.

Grade:

P... Satisfactory

F... Unsatisfactory

J.H. Allen

TRAINING DEPARTMENT USE	
Reviewed by Director, Nuclear Training or Training Supervisor	
INITIALS	DATE

# TRAINING SESSION

NOT-104-3 Form B Rev. 0

TO: Training Supervisor

FROM: L. G. Barnes

SUBJECT: Training Session

TOPIC ERG and IPO Upgrade Training

DATE Sept. 11, 1984

CONDUCTED BY Self-Study

DURATION \_\_\_\_\_

## I. Attendees

L. J. Ryan

## II. Material Covered

Upgrade training assigned as a result of the Shift Advisor oral exam:

- ° Read ERG's (Rev. 1)
- ° Read IPO's

L. G. Barnes / Operations Supervisor

9-21-84

Lawrence J. Ryan (SHIFT ADVISOR)

9-21-84

Name, Title

Date

COMANCHE PEAK STEAM ELECTRIC STATION  
SHIFT ADVISOR ORAL REVIEW AND CERTIFICATION

SHIFT ADVISOR STEVE STEVENS

☒ Qualifications confirmed RB Seidl 1 10/18/84  
Operations Superintendent Date

☒ General Training Complete

☒ General Employee Training ☒ Respiratory Protection Training  
(Optional)

☒ Radiation Worker Training

[Signature] 1 9/12/84  
Director, Nuclear Training Date

☒ Specialty Training Complete

[Signature] 1 9/12/84  
Director, Nuclear Training Date

☒ Procedure Training Complete

L. D. Barnes 1 9/10/84  
Operations Supervisor Date

☒ Oral Review

☒ Understands responsibilities and authorities (ODA-102)

☒ Understands initial and recurrent training requirements  
(TRA-299)

Comments ( \_\_\_\_\_ Additional comment pages attached:) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Certification of Qualifications and Training Completion

<u>L. D. Barnes</u>	<u>1 Operations Supervisor</u>	<u>1 10-16-84</u>
Signature	Title	Date
<u>[Signature]</u>	<u>1 Operations Engineer</u>	<u>1 10/18/84</u>
Signature	Title	Date
<u>RB Seidl</u>	<u>1 Operations Superintendent</u>	<u>1 10/18/84</u>
Signature	Title	Date

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Steve Stevens

Date: September 21, 1984

Review Panel Members: R. B. Seidel

L. G. Barnes

J. J. Allen

Comments: Steve was a little weak in ERG F series procedures  
scheduled repeat class should ~~also~~ be sufficient. No additional  
training should be required. J. J. Allen

Grade:

S... Satisfactory

M... Marginal

U... Unsatisfactory

SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Steve Stevens

Date: September 21, 1984

Time Begin: 2:10 PM

Time End: 4:45 PM

Review Panel Members: R. B. Seidel

L. G. Barnes *L. G. Barnes*

J. J. Allen

Comments: No major deficiencies were found with Mr. Stevens *JB*

Grade:

- S... Satisfactory
- M... Marginal
- U... Unsatisfactory



SHIFT ADVISOR ORAL EXAMINATION

Shift Advisor: Steve Stevens

Date: September 21, 1984

Review Panel Members: R. E. Seidel

L. G. Barnes

J. J. Allen

START: 2:10 P.M.

FINISH: 4:30 P.M.

Comments: ONLY MINOR WEAKNESSES IN A FEW AREAS. OVERALL EXCELLENT  
TECHNICAL AND ADMINISTRATIVE KNOWLEDGE RELATIVE TO THE SHIFT  
ADVISOR POSITION. NO UPGRADE TRAINING REQUIRED

Grade:

S... Satisfactory  
M... Marginal  
U... Unsatisfactory

*R. E. Seidel*  
9/21/84

ATTACHMENT 3

SHIFT ADVISOR TRAINING  
EXAMINATION RESULTS

Frank Pauli

TEXAS UTILITIES GENERATING COMPANY

OFFICE MEMORANDUM

To L.G. Barnes Glen Rose, Texas August 13, 1984

Subject Shift Advisor Training (Self-Study)  
Week 1 Grade Results

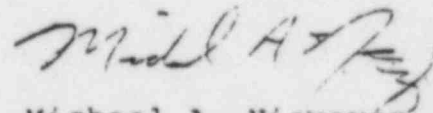
Grade

Student

89%

<sup>PAULI</sup>  
F. Pelly

MAN;pkk

  
Michael A. Niemeyer

TEXAS UTILITIES GENERATING COMPANY

OFFICE MEMORANDUM

To L.G. Barnes Glen Rose, Texas August 20, 1984

Subject Shift Advisor Training  
Week 2 Exam Results

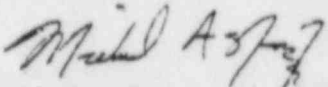
Grade

87%

Student

F. Pauli

MAN:pkk

  
Michael A. Niemeyer

## TEXAS UTILITIES GENERATING COMPANY

## OFFICE MEMORANDUM

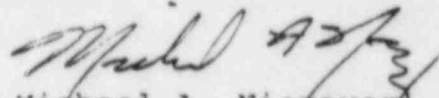
To L.G. Barnes Glen Rose, Texas August 30, 1984Subject Shift Advisor Training (Self Study)  
Week 3 Exam ResultsGrade

98%

Student

F. Pauli

MAN;pkk

  
Michael A. Niemeyer