PROCEDURE FOR PERFORMING

TASK ANALYSIS (AND VERIFICATION) FOR

THE SNUPPS DETAILED

CONTROL ROOM DESIGN REVIEW

MARCH 1985

8504040181 850401
PDR ADOCK 05000482
F PDR

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1.0 INTRODUCTION

The purpose of the Task Analysis is to identify action and information requirements necessary to perform selected tasks. The SNUPPS Task Analysis is based on a subset of the Westinghouse Owners Group (WOG) Emergency Response Guidelines (ERGs), Revision 1 for the identification of operator tasks. The review team assembled to carry out the task analysis will consist of utility engineering and operations personnel, members of the SNUPPS Staff, and the human factors consultant. Action and information requirements are developed independent of existing control room instrumentation. These requirements are then compared against control room components and hardware to verify that required control and instrumentation are available and compatable with operator needs.

Any detected inconsistencies will be treated as findings and handled in a fashion similar to that described in the SNUPPS Summary Report. Findings, resolutions and an implementation schedule will be reported to the NRC in a closing report, scheduled for submittal in April 1985.

2.0 PROCEDURE

2.1 General Instructions

The task analysis procedure is a descriptive process which extracts generic operator action and information requirements from systems function data (as represented by the WOG ERGs), converts these requirements to a plant-specific level, and documents the results in an auditable, tabular format for use as an input into the verification process, paragraph 2.2.6.

These procedures are organized into six major activities which are:

1. Develop a list of tasks from the WOG ERGs.

2. Generate a list of generic actions and information requirements for each task, organized by task for ERG's E-0, E-1, E-2, E-3, ECA-0.0, and all the Function Restoration Guidelines (FRGs).

3. Convert the generic list to a plant-specific list.

4. Reorganize the listing so that all action requirements of a given type and all information requirements of a given type are collected together. Type refers to a group of action or information requirements which all have the same system, plant component, and parameter (see detailed procedures, paragraph 2.2).

5. Summarize each action type and each information type in list form.

6. Compare the summary requirements to the existing control room design.

2.2 Detailed Procedures

2.2.1 Collect Materials

Obtain a copy of the WOG ERGs, Revision 1 and the four-volume set of related background documents.

2.2.2 Complete Action-Information Requirements Details (AIRD) Forms

2.2.2.1 General - Fill out one AIRD form for each step identified from the ERGs as detailed below. Caution and note statements will be included as appropriate. Implied tasks, such as to visually verify that a required action has taken place, will also be included as appropriate. Certain information, particularly plant-specific, technical specification defined

operating values, will not be available during this step. This information will be obtained when converting the generic AIRD forms to a plant-specific application. Fill in the appropriate information on the AIRD forms sequentially, starting with the top area of the form first and completing the tabular information last. Number all AIRD forms sequentially. The following paragraphs explain each blank of the form.

2.2.2.2 Originator - Originator to enter his name and today's date.

2.2.2.3 Reviewer - Reviewer to enter his name and today's date. The human factors consultant will either be the Originator or Reviewer.

2.2.2.4 ERG Number - Enter the ERG number currently being analyzed.

2.2.2.5 Step Number and Objective - Enter the ERG step number and objective for the step currently being analyzed. Caution and note statements are considered as a separate step and should be numbered C# or N#, respectively, where # represents the next step number to be encountered.

2.2.2.6 Behavioral Elements - There is at least one task required for every step listed in the ERG's. The tasks are divided into two categories: 1. "Action/Expected Response," and 2. "Response Not Obtained". The AIRD BEHAVIORAL ELEMENTS table separates these two categories of tasks by a horizontal dotted line, to be entered by the Originator.

Based upon the ERGs and their related background information, identify all behavioral elements for each task and list each element in the AIRD BEHAVIORAL ELEMENTS table. A behavioral element is defined by the various behavioral and physical properties of an action requirement or an information requirement. Each of the column entries are explained in detail below. Continue making additional behavioral element entries until all elements for a task are listed, then proceed to the next task. Column entries for each element are:

1) Action. Number each substep as it appears within the ERG. Some substeps constitute a single task, other substeps are made up of more than one task.

2) Verb. Enter a verb from the verb list (in Appendix 3) which best describes the required operator activity. This verb will either describe an action that must be performed or a method for acquiring information. Note that at this level of behavioral definition, a requirement for an operator to direct someone else to perform an action is considered an action element. You may note in the comments column that an operator directs someone to perform this action, however, maintain strict compliance to the verb list for this column at this stage in the analysis.

3) System. Enter the abbreviation for the SNUPPS plant system for this element. System abbreviations are listed in Appendix C.

4) Component/Equipment Number. Enter the plant component name for this element if applicable. If there is no identifiable component, enter NA. Do not enter any device, instrument, or control name. Enter the component's associated equipment number.

5) Parameter. Enter the parameter name for this element. This will usually be a condition or characteristic of the system and/or component such as temperature, pressure, flow, level, amps, volts, watts, etc.

6) Direction. Enter the "condition" of the parameter which may include one of the following:

1. Increasing
2. Decreasing
3. Greater Than (or Equal to)
4. Less Than (or Equal to)

7) State or Value. Enter any identifiable state or value for the parameter. States may include:

1. Stable
2. Open
3. Closed
4. On
5. Off
6. Running
7. Stopped

Values may include either a discrete numeric value or a range of numeric values.

8) Units/Rate. Enter the units and/or rate for the parameter's state/value. Units will be defined by terms such as lbs, psig, in, degrees F, etc. Rate will be units per some time unit (e.g., pounds/sec).

9) Precision. Enter the precision at which the information must be presented or the action must be taken. This will usually be a plus or minus value and unit. In general, the first attempt at determining precision should utilize the following formula:

$$P = 0.5A$$

Where P = Precision, and
A = Instrument Channel Inaccuracy

This formula is based on the conservative assumption that precision should be selected such that it will contribute to less than or equal to 12% of the total inaccuracy.

10) Trending Required? Enter Y or N for "yes" or "no." Generally, if the verb used for this element is "monitor," trending would be required. Also, for information verbs other than monitor which have response times in excess of one or two minutes and changes in rates, trending may be required. If in doubt, enter Y with a question mark (?) as a flag.

11) Comments. Enter any clarifying information or questions, including operating characteristics required by the ERG. This column is also used to cross reference other systems/components (e.g. SG level affected by Aux. Feedwater flow), indicate implicit verify's and explain exceptions to accepted rules from this procedure.

12) On AIRS Sh. No. Leave this column blank. It will be completed under paragraph 2.2.4.2

13) Repeat 1) through 12) for each behavioral element for each task.

2.2.3 Develop Plant-Specific AIRD Forms

Working with designated plant personnel, review all AIRD forms and modify them to accurately reflect the plant-specific parameters, values, ranges, units, rates, or other differences from the generic. Enter a brief, concise explanation for all identified plant-specific differences.

2.2.4 Complete Action-Information Requirements Summary (AIRS) Forms

2.2.4.1 General. AIRS forms are used to collect together all behavioral elements of a given type, independent of what ERG, ERG steps, or task they may appear in (i.e. this forms the basis for an instrument and control specification).

Behavioral element types that are the same are defined as having the following characteristics:

1) Their verbs agree as to class, e.g., they are either action verbs or information verbs (their verbs may be different within verb class.).

2) Their system, component, and parameter are all the same.

3) All other distinguishing features may be different.

2.2.4.2 Transcribe Behavioral Elements onto AIRS Forms - Begin transcribing the detailed information for the first behavioral element from the AIRD form to the AIRS from in the following manner:

1) Number the first sheet as one, and all subsequent AIRS forms sequentially. From the first AIRD sheet, enter onto the AIRS form in the INDIVIDUAL DETAILS table all the available information concerning the first behavioral element on the AIRD. At this time, determine the requirements type from the element verb (on the AIRD) and enter that in the SORT BLOCK of the AIRS form. Also transcribe (from the AIRD) the system, component, and parameter onto the AIRS SORT BLOCK. Leave the SUMMARY OF REQUIREMENTS BLOCK and VERIFICATION SUMMARY BLOCK blank at this time. When you have completed the first behavioral element, transcribe the AIRS sheet number into the last column (On IRS Sh. No.) of the AIRD form in line with that task.

2) Searching sequentially through the AIRD stacks, find the next behavioral element that is of the same type as the element that you just completed. It is the same type if it has the same requirements type (defined by the element verb class) and the same system, component, and parameter. Enter all available information for this element into the INDIVIDUAL DETAILS table of the AIRS form. Transcribe the AIRS sheet number into the last column of that AIRD form in line with that task.

3) Repeat the previous step until you have searched through all AIRD forms, then set that AIRS form aside.

4) Obtain a blank AIRS form and number it as the next sheet in the AIRS stack. Repeat steps 1) through 3) for the next type of task. When all tasks on the AIRD forms have AIRS sheet numbers in the last column of the table, transcribing the elements onto the AIRS forms is complete. File all AIRD forms.

5) Alternatively, a computer program may be utilized to sort the AIRD information and provide a printout of the resultant AIRS forms. In this case, the ERG number, step number and information provided by the Behavioral Elements would be entered into a computer data base. The computer would then sort the data entries using the following priorities:

1st Sort	Requirements Type
2nd Sort	System
3rd Sort	Component
4th Sort	Parameter

The SUMMARY OF REQUIREMENTS BLOCK and VERIFICATION SUMMARY BLOCK will be completed later.

2.2.4.3 Summarize Behavioral Elements - For each AIRS form, the human factors consultant (Originator) should summarize the behavioral element column entries for Value/Range, Units/Rate, Precision, and Trending Required. Enter these summaries in the appropriate places in the AIRS SUMMARY OF REQUIREMENTS BLOCK. Also, complete the Response Time entry with appropriate system or component response times, e.g. time required for a valve to close. When all AIRS forms have this block completed, this step is complete. There should be no entries for the VERIFICATION SUMMARY BLOCK on the AIRS form at this time.

2.2.5 Cross Check for Completeness

Upon completion of the AIRS forms, the inventory of parameters to be observed and/or controlled will be compared to the inventory of instrumentation and controls developed by Westinghouse in its SRTA (System Review and Task Analysis) of the basic version of the ERGs. This identified inventory difference will be cross compared at the task level, utilizing the task interchangeability data supplied in the SRTA, to Revision 1 of the ERGs. As a result of this comparison, a supplemental analyses will be performed for (1) each plant parameter not already analyzed, (2) each type of task not already analyzed, and (3) each parameter value not enveloped by values already included in the analyses. These supplemental analyses will be performed utilizing the AIRD form for the ERGs not previously analyzed. The results will then be transferred to the AIRS forms.

2.2.6 Verify Results

Utilizing plant specific documentation, control room simulator, etc., complete the VERIFICATION SUMMARY BLOCK on each AIRS form by indicating the existing control room instrument or control identification number for that instrument which

fulfills the action-information requirements listed. In some cases, more than one instrument may be used to satisfy a set of requirements (e.g. wide and narrow range pressure indicators). Enter the control board panel number to indicate the location for that instrument. Check the "Pass" column if existing instrumentation fulfills the action-information requirements or the "Fail" column if it does not. In the case of "Fail", a Human Engineering Finding (HEF) should be generated for future review by the DCRDR Review Team.

A representative completing the verification should enter his name as the Reviewer, and todays date.

The human factors consultant will review the results and enter his name and todays date as the Originator. This is done because it was also the human factors consultant to summarize the behavioral elements (paragraph 2.2.4.3).

3.0 INPUT DOCUMENTATION

1) Westinghouse Owners Group Emergency Response Guidelines and Background Documentation, Revision 1.

2) SNUPPS Abbreviation List.

3) System Piping and Instrument Diagrams.

4) Final Safety Analysis Report.

5) Westinghouse Owners Group System Review and Task Analysis Documentation

6) Other plant-specific documentation, as appropriate.

APPENDIX A. FORMS

ACTION-INFORMATION REQUIREMENTS DETAILS (AIRD)

Sheet _____ of _____

PLANT: WOLF CREEK,SNUPPS UNIT: _____

ORIGINATOR: _____ DATE: _____

REVIEWER: _____ DATE: _____

ERG NO: _____

STEP NO: _____

STEP OBJECTIVE: _____

REMARKS:

BEHAVIORAL ELEMENTS											
Action	Verb	System	Component/ Equipment No.	Parameter	Direction	State/Value	Units/Rate	Precision	Trending Required?	Comments	On AIRS Sh. No.

SHEET _____ of _____

ACTION-INFORMATION REQUIREMENTS SUMMARY (AIRS)

PLANT: SNUPPS (WOLF CREEK)

ORIGINATOR: _____ DATE: _____
REVIEWER: _____ DATE: _____

SORT BLOCK	SUMMARY OF REQUIREMENTS BLOCK
REQS TYPE:	VALUE/RANGE:
SYSTEM:	UNITS:
COMPONENT:	PRECISION:
PARAMETER:	RESPONSE TIME:

REMARKS:
1. * See AIRD

VERIFICATION SUMMARY BLOCK

DEVICE				
I.D. No	PANEL	HOME	PASS	FAIL

INDIVIDUAL DETAILS

ERG	STEP	ACT	VERB	DIRECTION	STATE/ VALUE	UNITS/ RATE	FREQ	TREND REQ	COMMENTS

APPENDIX B. VERB LIST

APPENDIX B
BEHAVIORAL ELEMENT VERB LIST

Verb	Application	Definition
Observe	Info. Req.	To attend visually to the presence of or the status of an object, indication, or event.
Read	Info. Req.	To examine visually information which is presented symbolically.
Monitor	Info. Req.	To visually keep track of an object, indication, or event over time.
Scan	Info. Req.	To quickly examine an information source to obtain a general impression.
Detect	Info. Req.	To be aware of the presence or absence of a visual stimulus.
Start	Cont. Req.	To manually or verbally initiate a simple or complex function, event, or activity.
Stop	Cont. Req.	To manually or verbally terminate a simple or complex function, event, or activity.
Open	Cont. Req.	To manually or verbally initiate a simple or complex function, event, or activity which ultimately results in a plant component or plant components (e.g., valve, breaker, damper, etc.) to assume an open state.
Close	Cont. Req.	To manually or verbally initiate a simple or complex function, event, or activity which ultimately results in a plant component or plant components (e.g., valve, breaker, damper, etc.) to assume a closed state.
Adjust	Cont. Req.	To manually or verbally initiate a simple or complex function, event or activity which ultimately results in a plant component or plant components, or a plant condition, status, or dynamic to change state.

APPENDIX C. SYSTEM ABBREVIATIONS

SYSTEM NAME	
AB	MAIN STEAM SUPPLY SYSTEM.
AC	MAIN TURBINE SYSTEM.
AD	CONDENSATE SYSTEM.
AE	FEEDWATER SYSTEM.
AF	FEEDWATER HEATER EXTRACTION,DRAINS AND VENTS SYS.
AK	CONDENSATE DEMINERALIZER SYSTEM.
AL	AUXILIARY FEEDWATER SYSTEM.
AN	DEMINERALIZED WATER STORAGE AND TRANSFER SYSTEM.
AP	CONDENSATE STORAGE AND TRANSFER SYSTEM.
AQ	CONDENSATE AND FEEDWATER CHEMICAL ADDITION SYSTEM.
BB	REACTOR COOLANT SYSTEM.
BG	CHEMICAL AND VOLUME CONTROL SYSTEM.
BL	REACTOR MAKEUP WATER SYSTEM.
BM	STEAM GENERATOR BLOWDOWN SYSTEM.
BN	BORATED REFUELING WATER STORAGE SYSTEM.
CA	STEAM SEAL SYSTEM.
CB	MAIN TURBINE LUBE OIL SYSTEM.
CC	GENERATOR HYDROGEN AND CARBON DIOXIDE SYSTEM.
CD	GENERATOR SEAL OIL SYSTEM.
CE	STATOR COOLING WATER SYSTEM.
CF	LUBE OIL STORAGE,TRANSFER AND PURIFICATION SYSTEM.
CG	CONDENSER AIR REMOVAL SYSTEM.
CH	MAIN TURBINE CONTROL OIL SYSTEM.
CN	
DA	CIRCULATING WATER SYSTEM.
EA	SERVICE WATER SYSTEM.
EB	CLOSED COOLING WATER SYSTEM.
EC	FUEL POOL COOLING AND CLEAN-UP SYSTEM.
EF	ESSENTIAL SERVICE WATER SYSTEM.
EG	COMPONENT COOLING WATER SYSTEM.
EJ	RESIDUAL HEAT REMOVAL SYSTEM.
EM	HIGH PRESSURE COOLANT INJECTION SYSTEM.
EN	CONTAINMENT SPRAY SYSTEM.
EP	ACCUMULATOR SAFETY INJECTION SYSTEM.
FA	AUXILIARY STEAM GENERATOR SYSTEM.
FB	AUXILIARY STEAM SYSTEM.
FC	AUXILIARY TURBINES.
FE	AUXILIARY STEAM CHEMICAL ADDITION SYSTEM.
FS	
GA	PLANT HEATING SYSTEM.
GB	CENTRAL CHILLED WATER SYSTEM.
GD	ESW PUMP HOUSE BLDG HVAC.
GE	TURBINE BUILDING HVAC.
GF	MISCELLANEOUS BLDG HVAC.
GG	FUEL BUILDING HVAC.
GH	RADWASTE BUILDING HVAC SYSTEM.
GK	CONTROL BUILDING HVAC.
GL	AUXILIARY BUILDING HVAC.
GM	DIESEL GENERATOR BUILDING VENTILATION.
GN	CONTAINMENT COOLING.
GP	CONTAINMENT INTEGRATED LEAK RATE TESTING SYSTEM.
GR	CONTAINMENT ATMOSPHERE CONTROL SYSTEM.
GS	CONTAINMENT HYDROGEN CONTROL SYSTEM.
GT	CONTAINMENT PURGE.
HA	GASEOUS RADWASTE SYSTEM.
HB	LIQUID RADWASTE SYSTEM.
HC	SOLID RADWASTE SYSTEM.
HD	DECONTAMINATION SYSTEM.
HE	BORON RECYCLE SYSTEM.

HF	SECONDARY LIQUID WASTE SYSTEM.
JE	EMERGENCY FUEL OIL SYSTEM.
KA	COMPRESSED AIR SYSTEM.
KC	FIRE PROTECTION SYSTEM.
KD	DOMESTIC WATER SYSTEM.
KE	FUEL STORAGE, FUEL HANDLING & REACTOR SERV.SYSTEM.
KF	CRANES, HOISTS, AND ELEVATORS.
KH	SERVICE GAS SYSTEM.
KJ	STANDBY DIESEL ENGINE SYSTEM.
KS	BULK CHEMICAL STORAGE AND HANDLING SYSTEM.
LA	SANITARY DRAINAGE SYSTEM.
LB	ROOF DRAINS SYSTEM.
LD	CHEMICAL AND DETERGENT WASTE SYSTEM.
LE	OILY WASTE SYSTEM.
LF	FLOOR AND EQUIPMENT DRAINS SYSTEM.
MA	MAIN GENERATION SYSTEM.
MB	EXCITATION & VOLTAGE REGULATION SYSTEM.
MR	STARTUP TRANSFORMER SYSTEM.
NB	LOWER MEDIUM VOLTAGE SYSTEM.
NE	STANDBY GENERATOR SYSTEM.
NF	LOAD SHEDDING AND EMERGENCY LOAD SEQUENCING.
NG	LOW VOLTAGE (480V) SYSTEM.
NK	125-VOLT DC SYSTEM.
NN	INSTRUMENT AC POWER SYSTEM 120 V.
PA	HIGHER MEDIUM VOLTAGE SYSTEM-13.8KV.
PB	LOWER MEDIUM VOLTAGE (4.16KV) SYSTEM.
PG	LOW VOLTAGE SYSTEM.
PJ	250V DC SYSTEM.
PK	125 V DC SYSTEM.
PN	INSTRUMENT AC POWER SYSTEM.
PQ	UNINTERRUPTIBLE AC POWER SYSTEM.
QA	NORMAL LIGHTING SYSTEM.
QB	STANDBY LIGHTING SYSTEM.
QD	EMERGENCY LIGHTING SYSTEM.
QE	TELEPHONE SYSTEM.
QF	PUBLIC ADDRESS SYSTEM.
QG	GROUNDING SYSTEM.
QJ	FREEZE PROTECTION SYSTEM.
QN	MISCELLANEOUS EQUIPMENT SYSTEM.
RD	METEOROLOGICAL INSTRUMENTATION SYSTEM.
RJ	BALANCE OF PLANT COMPUTER SYSTEM.
RK	PLANT ANNUNCIATOR SYSTEM.
RL	MAIN CONTROL BOARD SYSTEM.
RM	PROCESS LIQUID SAMPLING SYSTEM.
RP	MISCELLANEOUS CONTROL PANELS.
RR	SAFETY ASSESSMENT SYSTEM AND RADIOACTIVITY RELEASE INFORMATION SYSTEM.
RT	EMERGENCY RESPONSE FACILITY INFORMATION SYSTEM.
SA	BOP ENGINEERED SAFETY FEATURES ACTUATION SYSTEM.
SB	NSSS ESF ACTUATION AND REACTOR PROTECTION SYSTEM.
SC	REACTOR INSTRUMENTATION SYSTEM.
SD	AREA RADIATION MONITORING SYSTEM.
SE	EX-CORE NEUTRON MONITORING SYSTEM.
SF	REACTOR CONTROL SYSTEM.
SG	SEISMIC INSTRUMENTATION SYSTEM.
SJ	NUCLEAR SAMPLING & POST ACCIDENT SAMPLING SYSTEM.
SK	POWER BLOCK SECURITY SYSTEM.
SP	PROCESS AND EFFLUENT RADIATION MONITORING SYSTEM.
SQ	LOOSE-PARTS MONITORING SYSTEM.
SR	IN-CORE NEUTRON MONITORING SYSTEM.

APPENDIX D. EXAMPLE

ACTION-INFORMATION hcQUIREMENTS DETAILS (AIRD)

Sheet 3 of 32

PLANT: WOLF CREEK,SNUPPS UNIT: _____ ORIGINATOR: _____ DATE: _____

REVIEWER: _____ DATE: _____

ERG NO: E-1

STEP NO: 1

STEP OBJECTIVE: Check if RCP's should be Stopped

FINAL GENERIC AND PLANT SPECIFIC

REMARKS:

	BEHAVIORAL ELEMENTS										
Action	Verb	System	Component/ Equipment No.	Parameter	Direction	State/Value	Units/Rate	Precision	Trending Required?	Comments	On AIRS Sh. No.
a.	Observe or observe	BG EM	CHG Pmps PBG04, 05A, 05B SI Pmps PEM01A, B	—	—	Running Running	—	—	N N		
b.	observe	BB	RCS	Press	<	1350 [1350]	psig	25 [25]	N		
c.	Stop	BB	RCPs PBB01A, B, C, D	—	—	stopped	—	—	N		
	Observe	BB	RCPs PBB01A, B, C, D	—	—	Stopped	—	—	N	Implicit Verify	

ACTION-INFORMATION REQUIREMENTS DETAILS (AIRD)

PLANT: WOLF CREEK,SNUPPS UNIT: _____ ORIGINATOR: _____ DATE: _____

REVIEWER: _____ DATE: _____

ERG NO: E-1

STEP NO: 2

STEP OBJECTIVE: Check if SGs are not faulted

FINAL GENERIC AND PLANT SPECIFIC

REMARKS:

BEHAVIORAL ELEMENTS

Action	Verb	System	Component/ Equipment No.	Parameter	Direction	State/Value	Units/Rate	Precision	Trending Required?	Comments	On AIRS Sh. No.
a.	observe	AB	SGs EBB01A, B, C, D	Press	Decreasing Uncontrollably	0-1000	psig	10	Y		
	observe	AB	SGs EBB01A, B, C, D	Press	Depress-urized	~0	psig	10	N		
a	observe	AB	MSIVs ABHV11, 14, 17, 20	Pos	—	closed	—	—	N		
	observe	AE	FW Iso Vlvs AEFV 39, 40, 41, 42	Pos	—	Closed	—	—	N		

ACTION-INFORMATION ..EQUIREMENTS DETAILS (AIRD)

Sheet ____ of 32

PLANT: WOLF CREEK,SNUPPS UNIT: ____ ORIGINATOR: ____ DATE: ____

REVIEWER: ____ DATE: ____

ERG NO: E-1

STEP NO: C-3

STEP OBJECTIVE: Ensure alternate Water Sources available for AFW Pmp's

REMARKS:

FINAL GENERIC AND PLANT SPECIFIC
(REVISION 2; 01/21/85)

BEHAVIORAL ELEMENTS											
Action	Verb	System	Component/ Equipment No.	Parameter	Direction	State/Value	Units/Rate	Precision	Trending Required?	Comments	On AIRS Sh N
•	observe	AP	CST TAP01	Lev	<	14	%	1	N		

D-4

(Continued)

SHEET 101 of _____

ACTION-INFORMATION REQUIREMENTS SUMMARY (AIRS)

PLANT: SNUPPS (WOLF CREEK)

ORIGINATOR: _____ DATE: _____
REVIEWER: _____ DATE: _____

SORT BLOCK	
REQS TYPE:	Info
SYSTEM:	BB
COMPONENT:	RCS
PARAMETER:	PRS

SUMMARY OF REQUIREMENTS BLOCK	
VALUE/RANGE:	0:2500
UNITS:	PSIG
PRECISION:	25
RESPONSE TIME:	N/A

REMARKS:
1. * See AIRD

VERIFICATION SUMMARY BLOCK

DEVICE I.D. No	PANEL	BOM#	PASS	FAIL
PT-[illegible]5	22		X	

INDIVIDUAL DETAILS

ERG	STEP	ACT	VERB	DIRECTION	STATE/ VALUE	UNITS/ RATE	PREC	TREND REQ	COMMENTS
FR-I.3	6	B	OBS		1800	PSIG	25	N	
FR-H.1	18	G	OBS		1920	PSIG	25	N	
FR-H.1	7	A	OBS		1920	PSIG	25	N	
E-0	35	.	MON		250	PSIG	25	N	
FR-C.2	2	C	OBS		250	PSIG	25	N	
E-1	C9	.	MON		250	PSIG	25	N	
FR-C.3	2	C	OBS		250	PSIG	25	N	
E-0	15	D	OBS		250	PSIG	25	N	
E-3	12	.	MON		250	PSIGWR	25	N	
E-3	17	B	OBS		RUP SG	PSIGWR	-	N	*
FR-P.1	C3	.	OBS		SETPNT	PSIG	-	N	
E-1	1	B	OBS		[1250]	PSIG	25	N	
E-3	1	B	OBS		[1250]	PSIG	25	N	
E-0	21	B	OBS		[1250]	PSIG	25	N	*
E-0	15	B	OBS		[1700]	PSIG	25	N	
FR-I.3	6	B	OBS		[1800]	PSIG	25	N	
E-1	C9	.	MON		[250]	PSIG	25	N	
E-3	12	.	MON		[250]	PSIGWR	25	N	
FR-C.2	2	C	OBS		[250]	PSIG	25	N	
FR-C.3	2	C	OBS		[250]	PSIG	25	N	
E-0	15	D	OBS		[250]	PSIG	25	N	
FR-H.1	1	A	OBS		-	PSIG	25	N	*
FR-I.1	4	A	OBS		100	PSIG	25	N	
E-0	35	A	OBS		250	PSIG	25	N	
E-1	9	A	OBS		250	PSIG	25	N	
E-1	17	A	OBS		250	PSIG	25	N	
E-3	12	A	OBS		250	PSIG	25	N	
E-1	9	A	OBS		[250]	PSIG	25	N	
E-3	12	A	MON		[250]	PSIG	25	N	
E-1	17	A	OBS		[250]	PSIG	25	N	
FR-P.1	3	A	OBS	AND	2400	PSIG	25	N	*
E-3	25	A	OBS	BETWEEN	0-3000	PSIG	25	N	*
FR-I.3	6	A	OBS	BETWEEN	0-3000	PSI	25	N	*
FR-I.3	9	A	OBS	BETWEEN	0-3000	PSIG	25	N	
FR-I.3	18		OBS	BETWEEN	0-3000	PSIG	25	N	*

(Continued)

SHEET 102 of _____

ACTION-INFORMATION REQUIREMENTS SUMMARY (AIRS)

PLANT: SNUPPS (WOLF CREEK)

ORIGINATOR: _____ DATE: _____
REVIEWER: _____ DATE: _____

HOST BLOCK	
REQS TYPE:	Info
SYSTEM:	BB
COMPONENT:	RCS
PARAMETER:	PRS

SUMMARY OF REQUIREMENTS BLOCK	
VALUE/RANGE:	0 - 2
UNITS:	PSI, PSIGWR
PRECISION:	
RESPONSE TIME:	N/A

REMARKS:
1. * See AIPD

VERIFICATION SUMMARY BLOCK

	DEVICE		
	I.L. NO	PANEL	BOOM (FREE EMAIL)
LT PT [illegible]	02		X
CL PR 45	22		/

INDIVIDUAL DETAILS

EVG	STEP	ACT	VERF	DIRECTION	STATE/ VALUE	UNITS/ RATE	PREC	TREND REQ	COMMENTS
E-3	25	A	OBS	BETWEEN	0-3000	PSIG	25	N	*
FR-I.3	19	B	OBS	BETWEEN	0-3000	PSIG	25	N	*
E-3	16	A	OBS	BETWEEN	0-3000	PSIG	25	N	*
FR-P.1	5	.	OBS	BETWEEN	0-3000	PSIG	25	N	*
E-3	17	B	OBS	BETWEEN	0-3000	PSIG	25	N	*
E-3	18	B	OBS	BETWEEN	0-3000	PSIG	25	N	*
FR-P.1	10	A	OBS	BETWEEN	0-3000	PSIG	25	N	*
E-3	20	A	OBS	BETWEEN	0-3000	PSIG	25	N	*
FR-P.1	3	A	OBS	BETWEEN	530-	PSIG	25	N	*
FR-H.1	18	F	OBS	DECREAS	-	-	-	N	
E-3	29	B	OBS	DECREAS	-	PSIGWR	-	Y	
E-3	29	B	OBS	DECREAS	-	PSIGWR	-	Y	
E-3	29	B	OBS	DECREAS	-	PSIGWR	-	Y	
FR-H.1	7	A	OBS	DECREAS	-	PSIG	-	N	
FR-I.3	18		OBS	DECREAS	200	PSIG	25	Y	
FR-I.3	19	B	OBS	DECREAS	200	PSIG	25	Y	
FR-P.1	21	A	OBS	INCREAS	-	PSIG	-	N	
E-3	29	B	OBS	INCREAS	-	PSIG	-	N	
FR-I.3	20		OBS	INCREAS	-	PSIG	25	Y	*
E-3	19	H	OBS	INCREAS	-	PSIGWR	-	N	
FR-I.3	6	C	OBS	INCREAS	50	PSI	20	N	
E-1	6	C	MON	STA/INC	-	PSIG	-	Y	
E-0	25	C	MON	STA/INC	-	PSIG	-	Y	
E-3	23	C	OBS	STA/INC	-	PSIGWR	-	N	
E-1	6	D	OBS	STABLE	-	PSIG	-	N	I
FR-P.1	23	B	OBS	STABLE	-	PSIG	-	N	
E-0	25	D	OBS	STABLE	-	PSIG	-	N	I
FR-P.1	23	B	OBS	W/IN LM	-	PSIG	25	N	*
FR-P.2	3		OBS	W/IN LM	-	PSIG	25	N	*