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THE FOLLOWING CHANGES HAVE OCCURRED TO THE HARDCOPY OR ELECTRONIC MANUAL ASSIGNED TO YOU:

104 - 104 - RADIATION PROTECTION COORDINATOR (RPC): EMERGENCY PLSN-POSITION SPECIFIC PROCEDURE

REMOVE MANUAL TABLE OF CONTENTS DATE: 08/26/2002

ADD MANUAL TABLE OF CONTENTS DATE: 01/17/2003

CATEGORY: PROCEDURES TYPE: EP
ID: EP-PS-104
REMOVE: REV:15

ADD: REV: 16

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A045

PROCEDURE COVER SHEET

PPL SUSQUEHANNA, LLC	NUCLEAR DEPARTMENT PROCEDURE	
RADIATION PROTECTION COORDINATOR: Emergency Plan-Position Specific Procedure		EP-PS-104 Revision 16 Page 1 of 4

QUALITY CLASSIFICATION:	APPROVAL CLASSIFICATION:
( ) QA Program (X) Non-QA Program	( ) Plant ( ) Non-Plant (X) Instruction

EFFECTIVE DATE: 1/17/2003

PERIODIC REVIEW FREQUENCY: 2 Years

PERIODIC REVIEW DUE DATE: 1/17/2005

RECOMMENDED REVIEWS:
All

Procedure Owner: Nuclear Emergency Planning

Responsible Supervisor: Radiation Protection Manager

Responsible FUM: Supv.-Nuclear Emergency Planning

Responsible Approver: Vice President-Nuclear Operations

RADIATION PROTECTION COORDINATOR (RPC): Emergency Plan-Position Specific Procedure

WHEN: Technical Support Center (TSC) is activated

HOW NOTIFIED: Paged, phone backup

REPORT TO: TSC Emergency Director

WHERE TO REPORT: TSC

OVERALL DUTY:

Quantify and assess radiological conditions both on- and off-site, then recommend emergency classification and protective actions.

MAJOR TASKS:	TAB:	REVISION:
Obtain briefing on the emergency.	TAB A	3
Activate TSC Health Physics group and, if needed, request EOF activation.	TAB B	4
Make sure initial habitability is assessed.	TAB C	7
Take inventory of information required to analyze the radiological situation.	TAB D	5
Brief Emergency Director in the TSC on what you know about radiological conditions and Health Physics staff.	TAB E	1
Assess emergency classification and confirm or recommend changes to the Emergency Director.	TAB F	5
Assess and recommend protective actions to the Emergency Director.	TAB G	9
Communicate with DEP/BRP.	TAB H	4
Continue assessing radiological situation, updating Emergency Director, TSC staff, and Health Physics staff.	TAB I	8
Evaluate and approve emergency exposure extensions.	TAB J	1

MAJOR TASKS:	TAB:	REVISION:
Manage turn over to the next shift.	TAB K	0
Manage vehicle decontamination.	TAB L	1
Transfer Back Calculations, and responsibility for DEP/BRP communications to the EOF.	TAB M	3

SUPPORTING INFORMATION:	TAB:
Emergency Telephone Instructions	TAB 1
Emergency Organization	TAB 2
Response Levels for Protection Action Guides	TAB 3
SSES Contamination Response Plan	TAB 4
Emergency Facility Form Flow	TAB 5
Emergency Classification	TAB 6
Public Protective Action Recommendation Guide	TAB 7
PPL Emergency Personnel Dose Assessment and Protective Action Recommendation (PAR) Guide	TAB 8
TSC Rad Staff Responsibilities	TAB 9
Personnel Accountability	TAB 10
Emergency Exposure Extensions	TAB 11
Emergency Forms • Protective Action Recommendation Form • Emergency Exposure Extension Request	TAB 12
Intentionally Blank	TAB 13
Liquid Discharge Data Sheets	TAB 14
PPL Radiological Representation/Participation in FRMAC	TAB 15
TSC Dose Assessment Flowchart	TAB 16

REFERENCES:

SSES Emergency Plan

NUREG-0654, Planning Standards and Evaluation Criteria

NUREG-0731, Guidelines for Utility Management Structure and Technical Resources, September 1980

SP-00-308, Emergency Medical Response

MAJOR TASK:

Obtain briefing on the emergency.

SPECIFIC TASKS:	HOW:
1. Go to the TSC and talk with Emergency Director or Operation Coordinator and HP II Dose Calculator.	1a. Key questions might include: (1) Is there a release? (2) Status of OSCAR? (Dispatch, if necessary.) (3) Are on-shift Health Physics Technicians available? in Control Room? (4) Get some indication from Emergency Director about what the plant's radiological status is. Consider: (a) Indication of fuel damage. (b) High rad areas in plant. (c) Accident type. (d) Current met data. (e) Plume pathway. (f) Release data. (g) ARMs.
2. Inform Emergency Director and Administrative Coordinator of your arrival.	
3. Determine need or status of additional personnel such as Health Physics management, technicians, or EOF responders.	3a. Discuss manpower requirements with the Health Physics Specialist, (Health Physics Duty Foreman). **NOTE:** **Minimum staffing requirements are ten Health Physics Technician qualified personnel.** 3b. Request the Health Physics Specialist to call-out additional Health Physics support, as needed.
4. Obtain copies of any Protective Action Recommendation Forms.	
5. Determine the status of any communications to DEP/BRP.	5. Make sure DEP/BRP radiological is notified approximately every 30 minutes.

MAJOR TASK:

Take inventory of information required to analyze the radiological situation.

SPECIFIC TASKS:	HOW:
1. Evaluate offsite radiological conditions.	1a. Review available data such as: (1) Valid release rates (airborne and liquid). (2) Field measurements. (3) Meteorological data. (4) Dose calculations. (5) Affected sectors. **NOTE:** **"White" PICSY data is an indication of unreliable data. It may be normal and acceptable due to low or no flow in the SPING Monitor or may indicate a release exceeding the range of the instrument or an indication of instrumentation or computer interface problems.** **HELP** Response Levels for Protection Action Guides **See TAB 3** **HELP** Liquid Discharge Data Sheets **See TAB 14** **HELP** TSC Dose Assessment Flowchart **See TAB 16** 1b. Determine if Iodine detection channels are over responding due to interference from noble gas or short lived nitrogen isotopes. The data is suspect if the NG/I-131 release rate ratio is less than 1,000 for a given vent.

SPECIFIC TASKS:	HOW:

HELP

TSC Dose Assessment Flowchart
See TAB 16 Page 3

1c. If low confidence (white) PICSY data exists:

(1) If data is suspect, consult with Operations or Engineering to determine if condition is normal.

(2) Use appropriate data such as grab sample (vent, PAVSS, HP air samples) results or previously measured or default noble gas to iodine/particulate ratios in Forward Calculation.

HELP

TSC Dose Assessment Flowcharts
See TAB 16 Page 4

(3) Ensure OSCAR is taking air samples as appropriate and is maintaining their exposure ALARA.

(4) Report conditions as a potential unmonitored or an unmonitored release depending on measured to projected dose rate ratios.

(5) Initiate Back Calculations if field data is available.

SPECIFIC TASKS:	HOW:
2. Evaluate onsite radiological conditions.	2a. Review available data such as: (1) ARMs. (2) Containment integrity. (3) Containment high rad monitor. (4) Liquid release. (5) CAM's. (6) INDIA Team's survey data. (7) HVAC status/conditions. (8) Status of turbine building doors. (9) Status of blow-out panels.

MAJOR TASK:

Assess emergency classification and confirm or recommend changes to the Emergency Director.

SPECIFIC TASKS:	HOW:
1. Quantify available radiological release information.	1a. Quantify both airborne and/or liquid releases.
2. Classify conditions using matrix.	**HELP** Emergency Classification **See TAB 6**
3. Recommend any changes in classification to the Emergency Director.	**HELP** Liquid Discharge Data Sheets **See TAB 14**
	HELP TSC Dose Assessment Flowchart **See TAB 16**

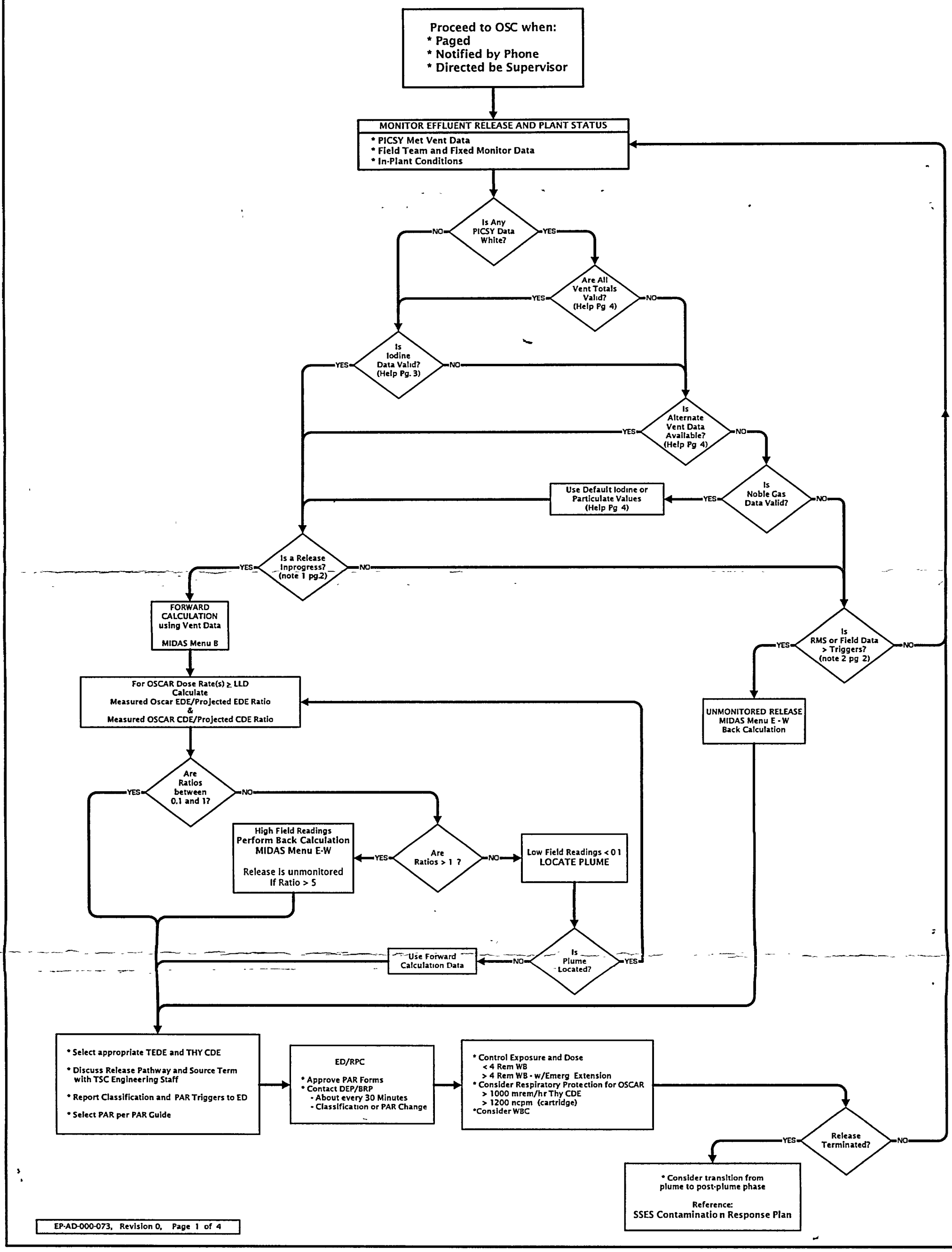
MAJOR TASK:

Continue assessing radiological situation, updating Emergency Director, TSC staff, and Health Physics staff.

SPECIFIC TASKS:	HOW:
1. Attend TSC briefing and provide radiological status.	1a. Give the status of the following items at the briefing: (1) Current radiological release status and Dose Projections. (2) Current and forecast weather conditions. (3) Oscar locations, current radiological information, and Real Time Monitoring System data. (4) In-plant radiological conditions. (5) Protective action(s) implemented or under consideration.
2. Periodically brief Health Physics staff and receive updates from them.	**HELP** TSC Rad Staff Responsibilities **See TAB 9**
3. Perform frequent on-going assessment of radiological situation both offsite and onsite.	
4. Periodically perform general HP operation assessment.	4a. Verify form flows, board is being maintained, contamination controls in place, and that staffing is adequate.
5. Provide information to Ops Coordinator on rad releases and projected doses to the public for use by Control Room personnel.	5a. Notify Operations Coordinator if doses at the EPB are projected to exceed **1 rem TEDE or 5 rem Thyroid CDE.** Control Room needs radiological data to evaluate entry conditions and action levels for EOP procedures. These procedures require operator actions such as rapid depressurization based on projected doses.

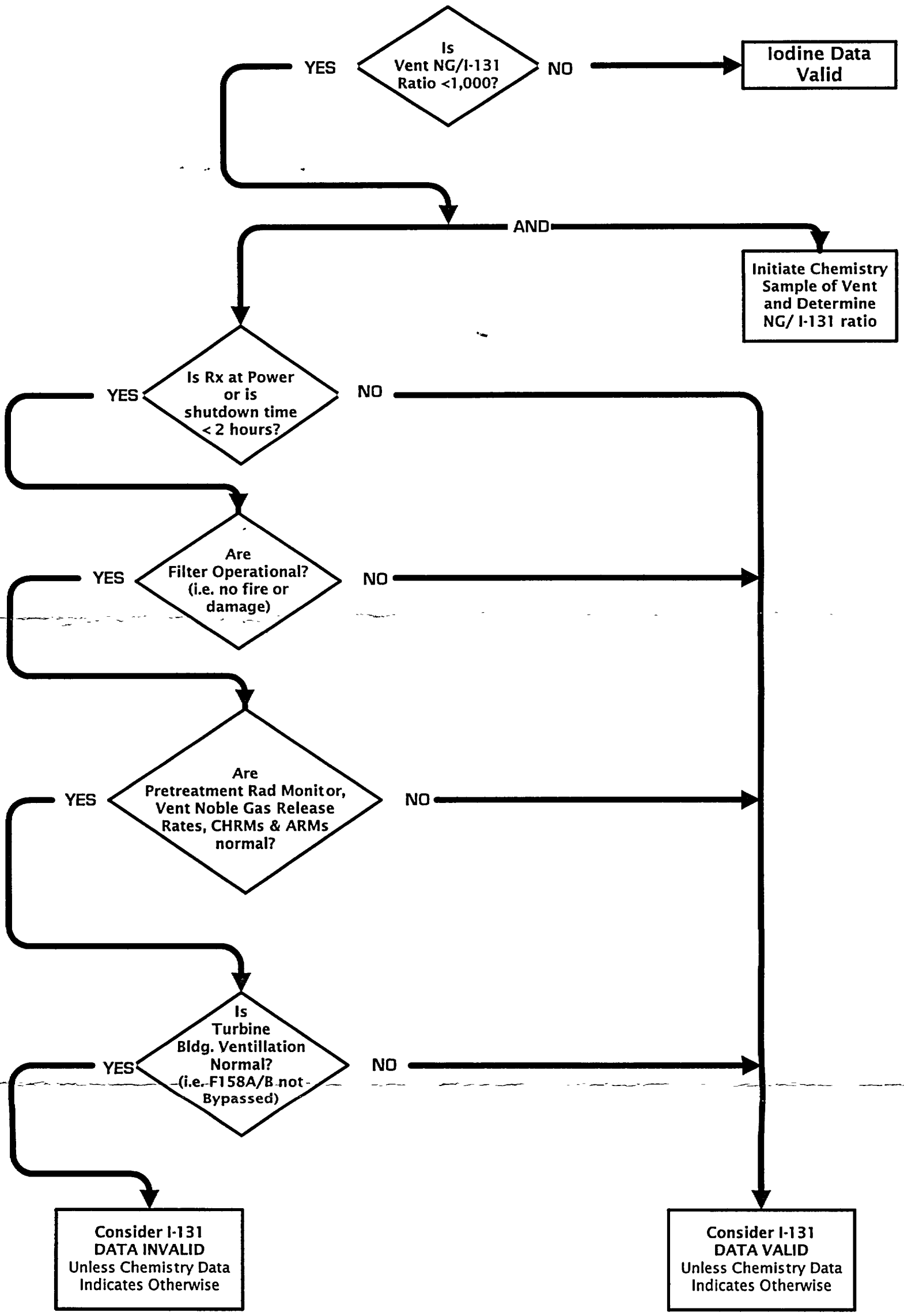
SPECIFIC TASKS:	HOW:
	NOTE: **These procedures also require that projected doses be determined when containment venting is needed.**
	5b. Discuss projection time with Ops Coordinator. (This may differ from the default projection time being used in the dose projection model.) Consider the following: (1) Prognosis of event. (2) Time to cooldown to <200 deg. (3) Duration & type of release. (4) Weather forecasts. (5) Protective measures already implemented. (6) Release pathway - possible filtration and/or monitoring.
6. Continue to evaluate the current PAR and recommend revising the PAR to the Emergency Director based on increasing dose levels.	

TSC DOSE ASSESSMENT FLOWCHART



NOTE 1 VENT RELEASE TRIGGERS	NOTE 2 RMS/FIELD TRIGGERS	NOTE 3 DEFAULT ACCIDENT TRIGGERS	NOTE 4 NUREG 1228 TRIGGERS	NOTE 5 LIQUID RELEASE TRIGGERS
♦ AIRBORNE RELEASE >8.51E5 µci/min Noble Gas or >1.04E2 µci/min Iodine or >7.72E2 µci/min Particulate	♦ AIRBORNE RELEASE ≥ 0.1 mrem/hr WB or ≥ 68.4 mrem/hr Thy CDE or ≥ 100 ncpm on 1 Cartridge	♦ CONT. HI RAD MONITOR (CHRM) Normal Reading ≅ 3 R/Hr	♦ UNFILTERED VENT RELEASE ♦ RELEASE RATE > DESIGN BASIS 1%/DAY ♦ CORE UNCOVERED > 15 MINUTES ♦ SPENT FUEL POOL RELEASE	♦ LIQUID RELEASE Liquid Effl. ≥ TRM
♦ EAL 15.1 UNUSUAL EVENT FOR 60 min. >1.70E6 µci/min Noble Gas or >2.08E2 µci/min Iodine or >1.54E3 µci/min Particulate.				♦ EAL 15.1 Liquid Effl. ≥ TRM
♦ EAL 15.2 ALERT for 15 min. >1.70E8 µci/min Noble Gas or >2.08E4 µci/min Iodine or >1.54E5 µci/min Particulate		♦ EAL 3.2 SEVERE CLAD DEGRADATION >200 R/hr CHRM >300 µci/cc DE I-131		♦ EAL 15.2 Liquid Effl. ≥ 10 x TRM
♦ EAL 15.3 SITE AREA EMERGENCY Projected dose rates @ EPB >100 mrem/hr TEDE for 30min or >500 mrem/hr THY CDE for 30min or >15 rem/hr TEDE for 2min or >75 rem/hr THY CDE for 2min Projected dose @ EPB >500 mrem TEDE within 1 hour		♦ EAL 3.3 SEVERLY DEGRADED CORE > 400 R/hr CHRM > 1000 µci/cc DE I-131		
♦ EAL 15.4 GENERAL EMERGENCY Projected Dose @ EPB ≥ 1 Rem TEDE or ≥ 5 Rem THY CDE		♦ EAL 3.4 CORE MELT >400R/hr CHRM >1000µci/cc DE Iodine-131 > 2000 R/hr CHRM		

TEST FOR IODINE VALIDITY



QUESTIONABLE NOBLE GAS DATA

SPING Noble Gas Value(s) White

Determine Status of SBGT

* If SBGT has actuated, the affected Unit Rx Bldg data will turn white. This condition is normal and acceptable due to no flow through the vent?

NG Totals Valid?

YES

Continue Using SPING DATA

NO

Take Appropriate Action:

* Restore Channel
* Obtain/Analyze Vent Sample(s)
* Initiate PAVSS
* Obtain Air Sample(s)
* Obtain Field Reading

QUESTIONABLE IODINE DATA

SPING IODINE Value(s) White

Determine Status of SBGT

* If SBGT has actuated, the affected Unit Rx Bldg data will turn white. This condition is normal and acceptable due to no flow through the vent?
* Is the release through an unaffected vent?

Note:
If vent NG release rate is less than 10% of the peak vent NG release rate, it is an unaffected vent.

Note:
Data will turn white due to High Resolution Time (~1hr @ 2E4 uCi/min)

Iodine Totals Valid?

YES

Continue Using SPING DATA

NO

Take Appropriate Action:

* Use default Ratio NG/I=1,000
* Use last valid NG/I Ratio if appropriate
* Restore Channel
* Obtain/Analyze SPING or PAVSS Vent Sample(s)
* Initiate PAVSS
* Obtain Air Sample(s)
* Obtain Field Reading

QUESTIONABLE PARTICULATE DATA

SPING PARTICULATE Value(s) White

Determine Status of SBGT

* If SBGT has actuated, the affected Unit Rx Bldg data will turn white. This condition is normal and acceptable due to no flow through the vent?
* Is the release through an unaffected vent?

Note:
If vent NG release rate is less than 10% of the peak vent NG release rate, it is an unaffected vent.

Particulate Totals Valid?

YES

Continue Using SPING DATA

NO

Take Appropriate Action:

* Use default Ratio NG/Part.=10,000
* Use last valid NG/Part. Ratio if appropriate
* Restore Channel
* Obtain/Analyze SPING or PAVSS Vent Sample(s)
* Initiate PAVSS
* Obtain Air Sample(s)
* Obtain Field Reading