REVISION LOG SHEET

Revision Date: PORC December 29, 1982 (Issued February 9, 1983)

This log sheet must be retained as the last page of the Sequoyah Implementing Procedure Document.

Inserted by: _____ Date Inserted: _____

Pages to be Removed			New Pages to be Inserted		
Part	Page Number	Revision	Part	Page Number	Revision
IP-1	Cover Page	Rev. 3	IP-1	Cover Page	Rev. 4
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IP-3	Cover Page	Rev. 4	IP-3	Cover Page	Rev. 5
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IP-4	Cover Page	Rev. 4	IP-4	Cover Page	Rev. 5
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Sequoyah Nuclear Plant

SQN REP - IMPLEMENTING PROCEDURES DOCUMENT

SQN, IP-1
EMERGENCY PLAN CLASSIFICATION LOGIC

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Revised By: M. R. Harding

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Supervisor

PORC Review: 12/29/82
Date

Approved By: [signature]
Pwr Plt Superintendent

Date Approved: 12/21/82

DISTRIBUTION

1C	81 Plant Master File
1C	83 Asst. Power Plant Supt. (Oper.)
1C	84 Asst. Power Plant Supt. (Maint.)
1C	86 Maintenance Supervisor (M)
1C	87 Maintenance Supervisor (E)
1C	88 Maintenance Supervisor (I)
1C	89 Results Supervisor
1C	90 Operations Supervisor
1C	92 Health Physics Supervisor
1C	93 Public Safety Services Supv.
1C	95 Outage Director
1C	96 Emergency Cabinet Control Room
1C	97 Emergency Cabinet Communications Room
1C	98 Emergency Van
1C	102 Shift Engineer's Office
1C	103 Unit Control Room
1C	105 Health Physics Laboratory
1C	106 Medical Office
1C	107 Resident NRC Inspector - SNP
1C	108 Technical Support Center
1C	109 Assistant HP Supervisor
1C	110 Plant Duty Supervisor
1C	111 Asst. Power Plant Supt. (H&S)
1C	EP&P Sliger, Eric K., 1470 CST2-C

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
2	6/8/81	All			
3	8/26/81	Revised 2, Added 32A, 32B and 32C			
4	12-19-82	All			

The last page of this instruction is Number 40.

EMERGENCY PLAN CLASSIFICATION LOGIC

1.0 PURPOSE

This procedure guides the shift engineer in determing the class of an accident based on plant conditions.

2.0 GENERAL

The TVA radiological emergency plan will be activated when any one of the conditions listed in this logic is detected. The shift engineer is responsible for declaring the emergency and providing the initial activation of the emergency plan.

To determine the classification of the emergency, enter the logic with the known or suspected conditions and carry out the notification referenced. If there is any reason to doubt whether a given condition has actually occurred, the shift engineer or Site Emergency Director will proceed with the required notification without waiting for formal confirmation. If followup investigations show that a suspected condition has not occurred, is less severe, or more severe than originally suspected, the classification will be cancelled, downgraded, or upgraded as required.

The following actions are given for guidance only: knowledge of actual plant conditions or the extent of the emergency may require that additional steps be taken. In all cases, this logic procedure should be combined with the sound judgement of the shift engineer and/or the Site Emergency Director to arrive at a classification for a particular set of circumstances.

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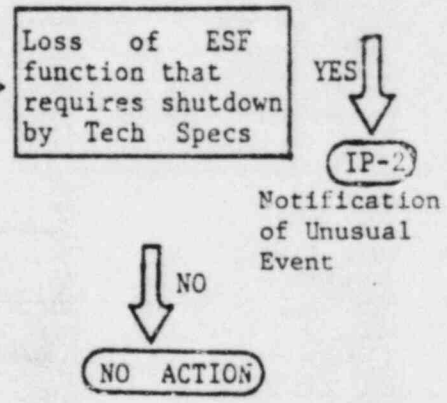
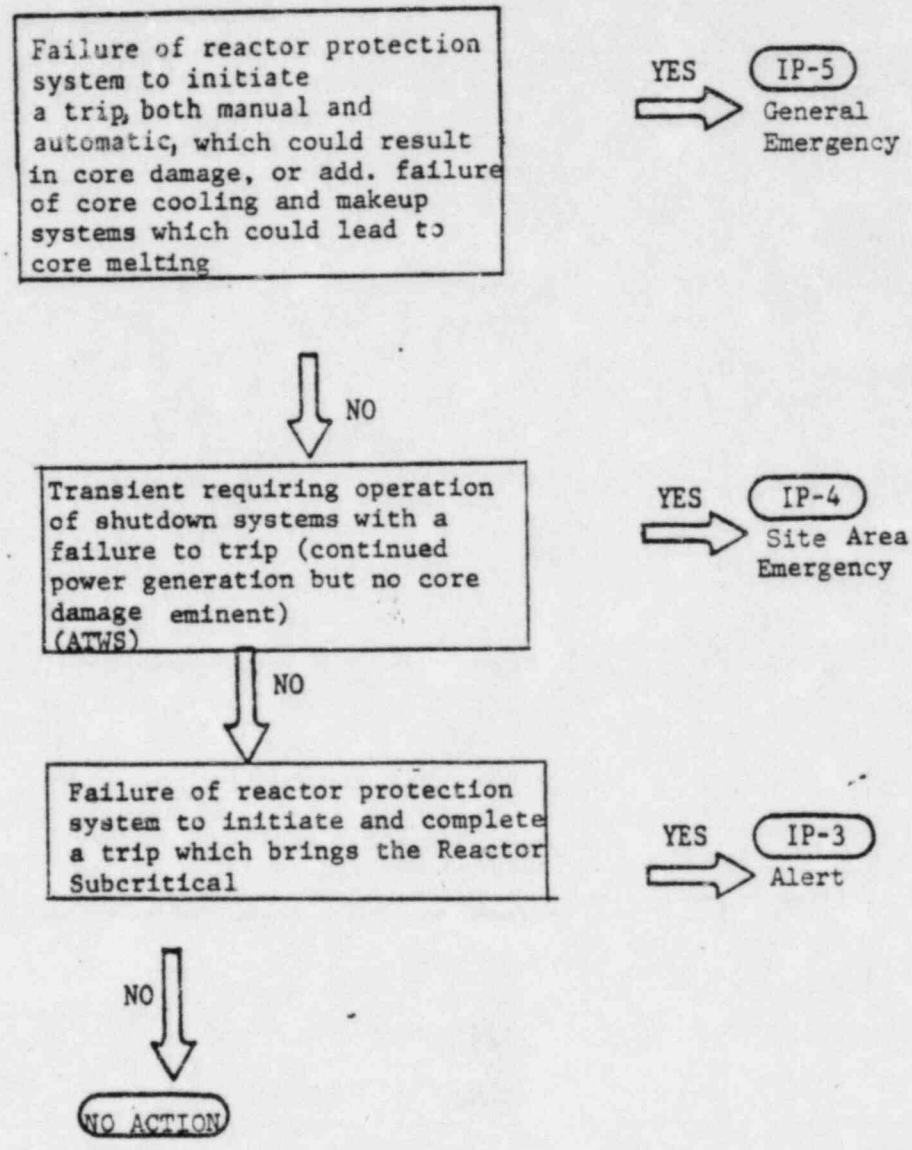
ENGINEERED SAFETY FEATURES

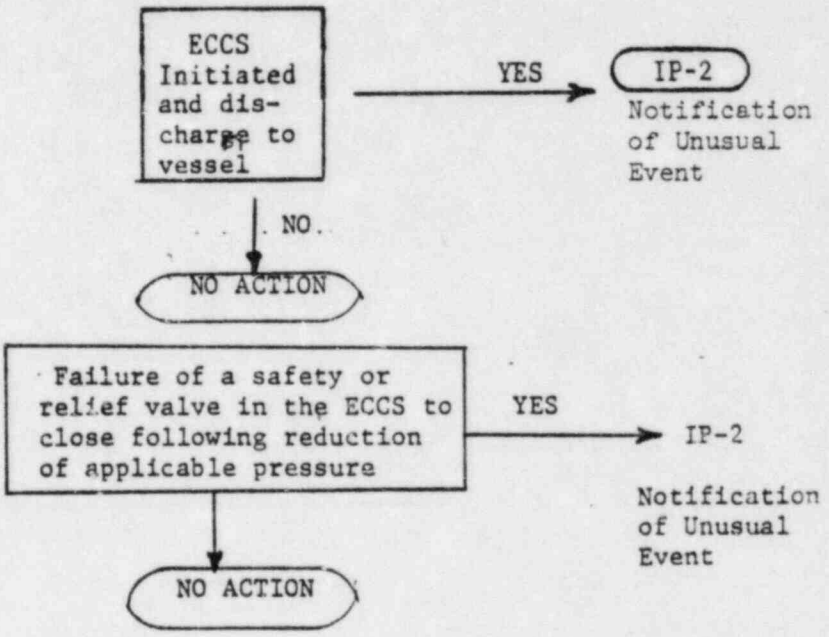
Reactivity Control Systems	Flow Paths - Operating	LCO 3.1.2.2
	Charging Pumps - Operating	LCO 3.1.2.4
	Borated Water Sources - Operating	LCO-3.1.2.6
Instrumentation	ESF Actuation System Instrumentation	LCO 3.3.2.1
Reactor Coolant System	Pressurizer Safety Valves - Operating	LCO 3.4.3
	RCS Leakage Detection System	LCO 3.4.6.1
Emergency Core Cooling System	Cold Leg Accumulators	LCO 3.5.1.1
	UHI Accumulators	LCO 3.5.1.2
	ECCS Subsystems Tavg $\geq$ 350°F	LCO 3.5.2
	Boron Injection Tank	LCO 3.5.4.1
	Heat Tracing	LCO 3.5.4.2
	Refueling Water Storage Tank	LCO 3.5.5
Containment Systems	Primary Containment Integrity	LCO 3.6.1.1
	EGTS Cleanup Subsystem	LCO 3.6.1.8
	Containment Spray System	LCO 3.6.2.1
	Hydrogen Analyzers	LCO 3.6.4.1
	Electric Hydrogen Recombiners	LCO 3.6.4.2
	Ice Condenser	LCO 3.6.5.1
	Ice Bed Temp. Monitoring System	LCO 3.6.5.2
	Ice Condenser Doors	LCO 3.6.5.3
	Inlet Door Position Monitoring System	LCO 3.6.5.4
	Containment Air Return Fans	LCO 3.6.5.6
	Floor Drains	LCO 3.6.5.7
	Vacuum Relief Valves	LCO 3.6.6.1
Plant Systems	Auxiliary Feedwater	LCO 3.7.1.2
	Condensate Storage Tank	LCO 3.7.1.3
	Main Steam Isolation Valves	LCO 3.7.1.5
	Component Cooling Water Sys	LCO 3.7.3.1
	Essential Raw Cooling Water	LCO 3.7.4.1
	Auxiliary ERCW	LCO 3.7.4.2
	Control Room Emergency Vent System	LCO 3.7.7.1
	Auxiliary Building Gas Treatment System	LCO 3.7.8.1
Electrical Power System	Diesel Generators	LCO 3.8.1.1
	Onsite Power Distribution System	LCO 3.8.2.1
	125 VDC Vital	LCO 3.8.2.3



ENGINEERED SAFETY FEATURES
(Continued)



EMERGENCY CORE COOLING SYSTEM



ANNUNCIATORS, INSTRUMENTS AND CONTROLS

All Alarms (annunciators) lost for more than 15 minutes and plant transient initiated or in progress while all alarms lost

YES → IP-4 Site Area Emergency

NO ↓

Most or All Alarms (annunciators) lost for more than 15 minutes and plant is in mode 4 or above.

YES → IP-3 Alert

NO ↓

Loss of Indication or Alarms On
(1) Process or effluent parameters to extent requiring shutdown per Tech Spec ACTION or,
(2) PAMs to extent requiring shutdown per Tech Spec ACTION

OR

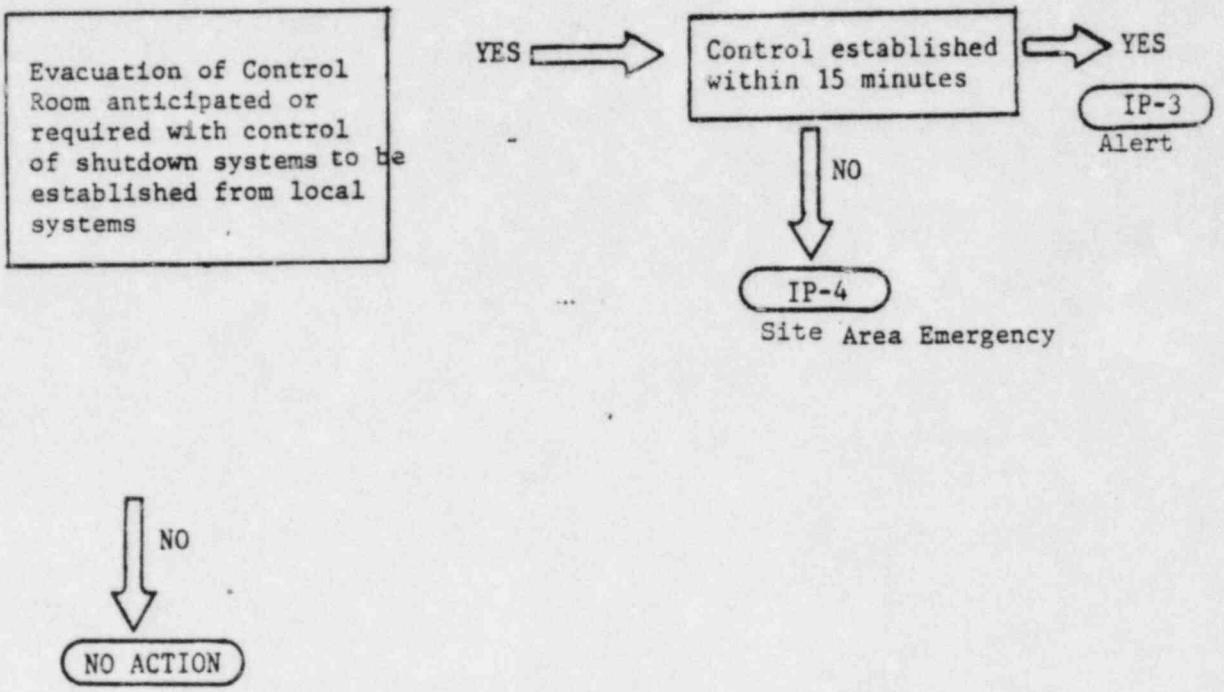
Loss of Assessment On
(1) Process computers to extent requiring shutdown per shift supervisor (SRO) decision or,
(2) A loss of ALL Meteorological Instrumentation, Local and Remote, listed in Instrumentation section of the Tech Spec

YES → IP-2 Notification of Unusual Event

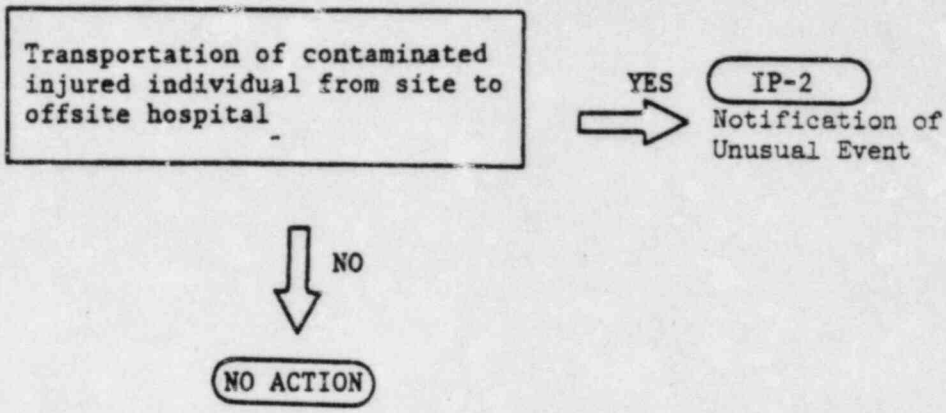
NO ↓

NO ACTION

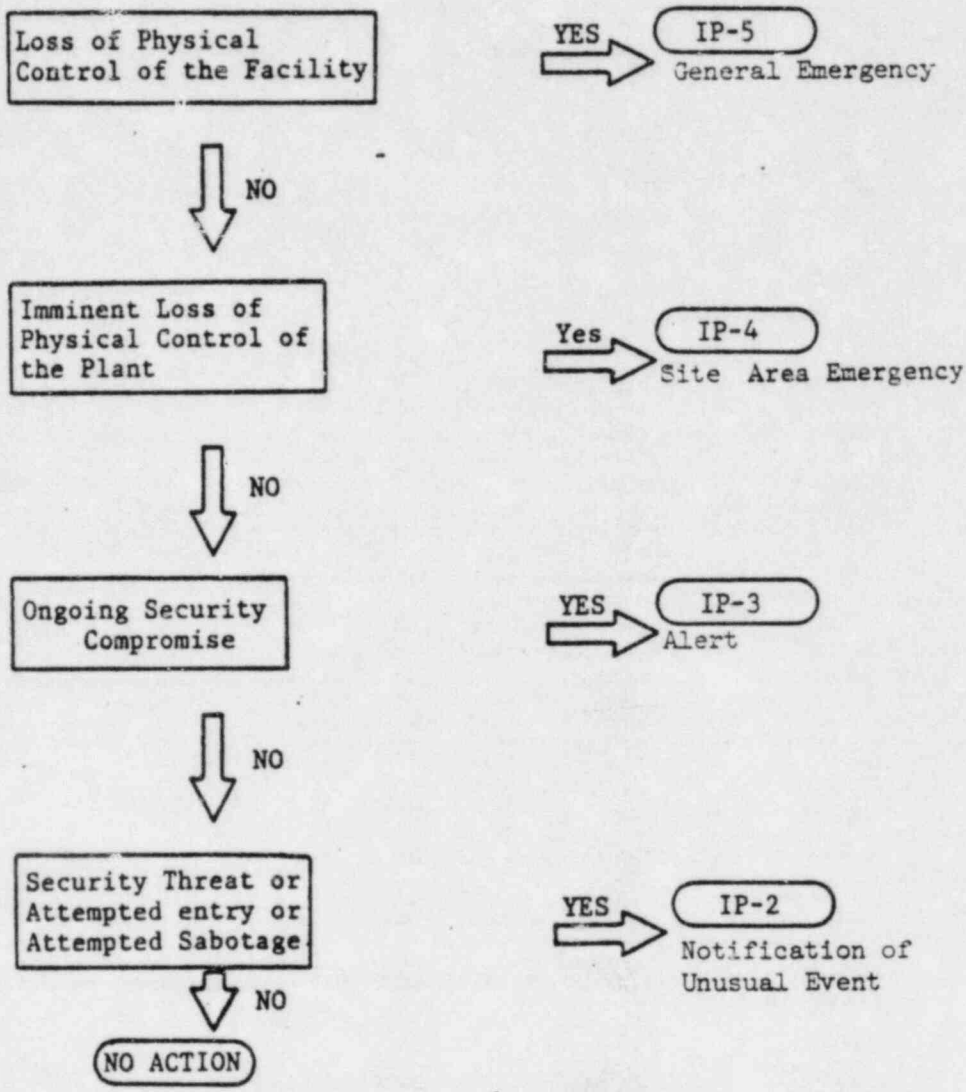
CONTROL ROOM EVACUATION



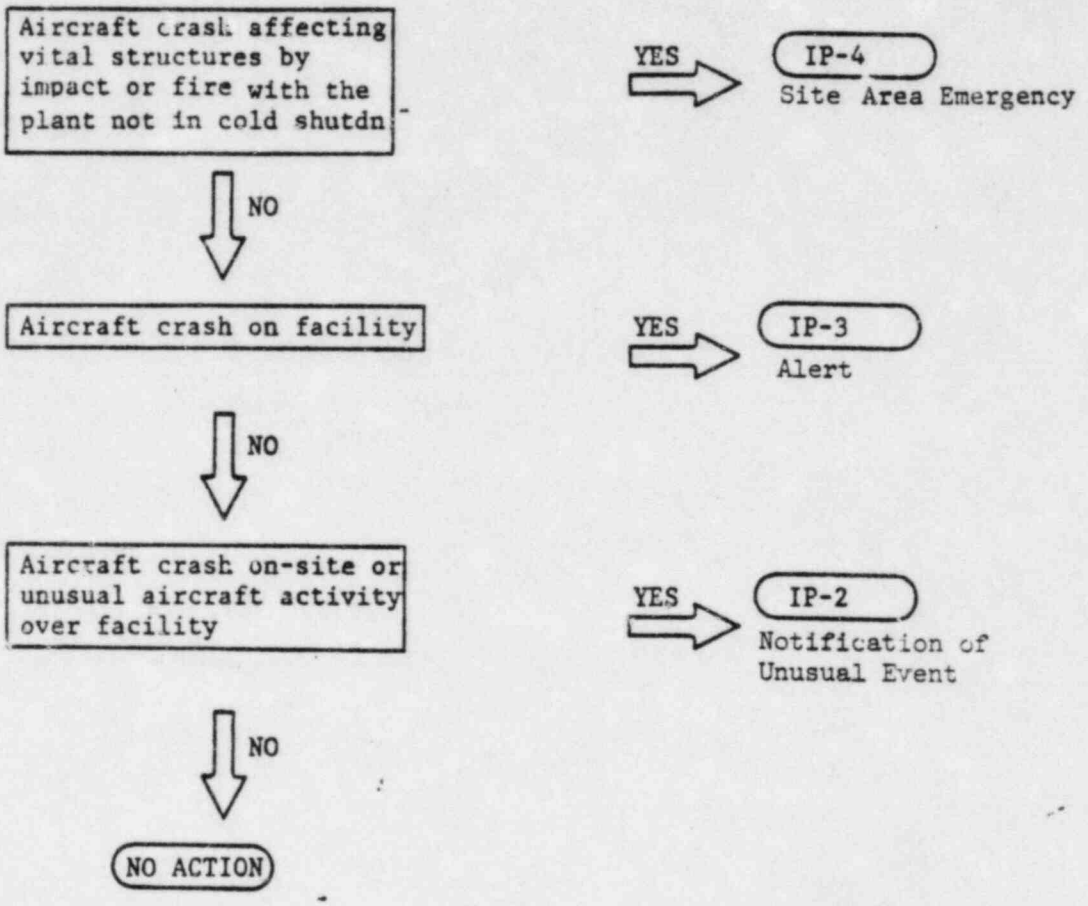
MEDICAL


Transportation of contaminated injured individual from site to offsite hospital
YES
IP-2
Notification of Unusual Event
NO
NO ACTION

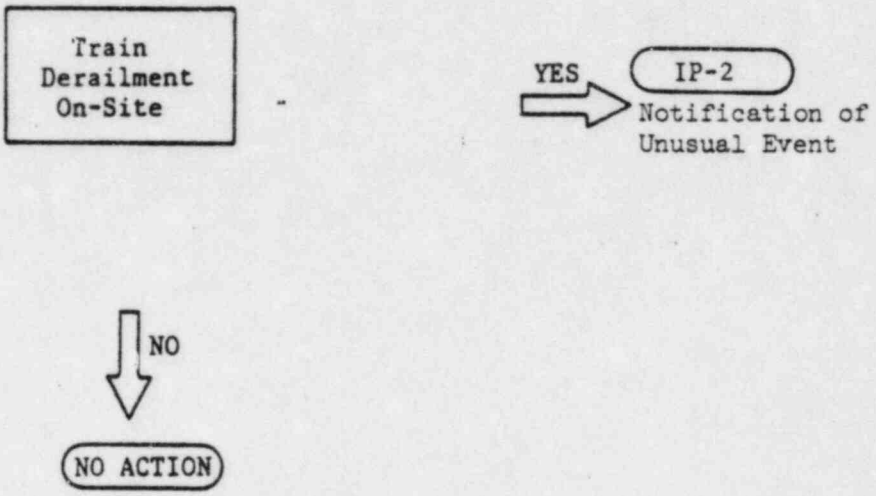
PLANT PHYSICAL SECURITY



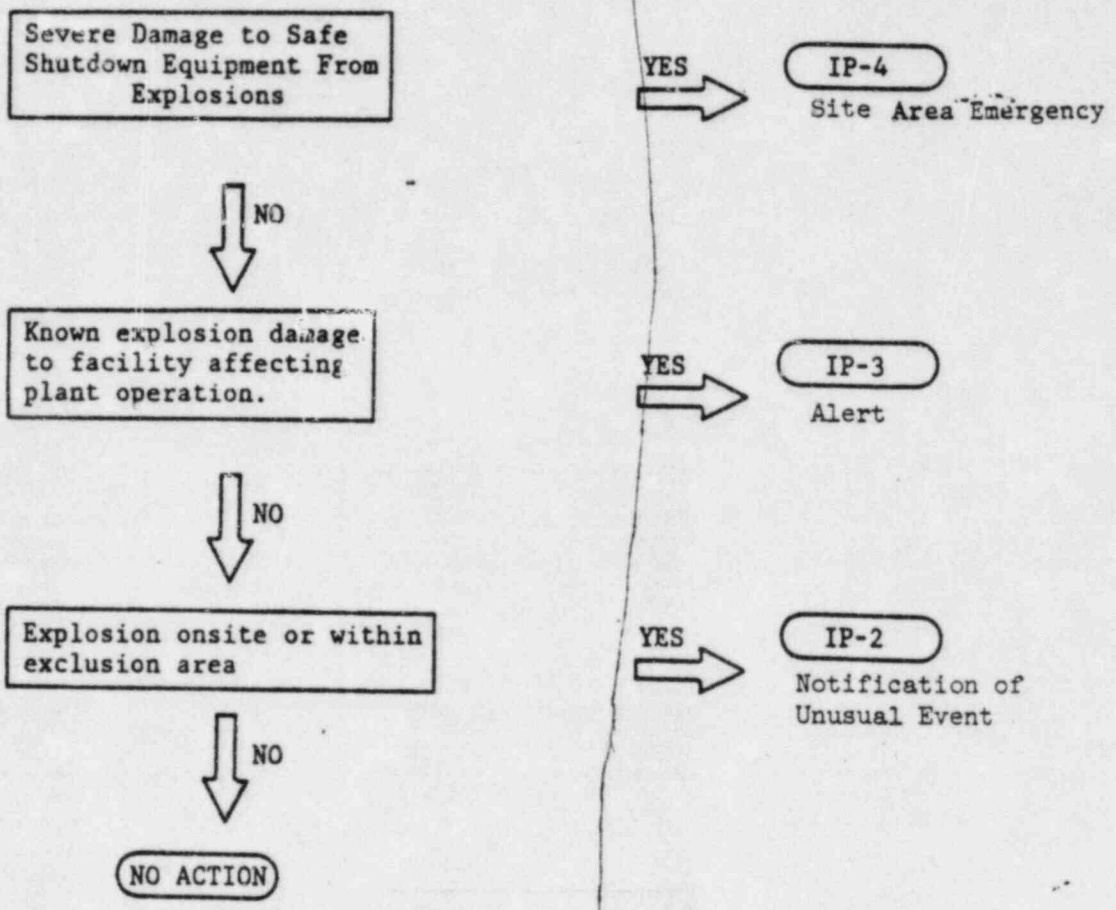
AIRCRAFT


Aircraft crash affecting vital structures by impact or fire with the plant not in cold shutdn
YES
IP-4
Site Area Emergency
NO
Aircraft crash on facility
YES
IP-3
Alert
NO
Aircraft crash on-site or unusual aircraft activity over facility
YES
IP-2
Notification of Unusual Event
NO
NO ACTION

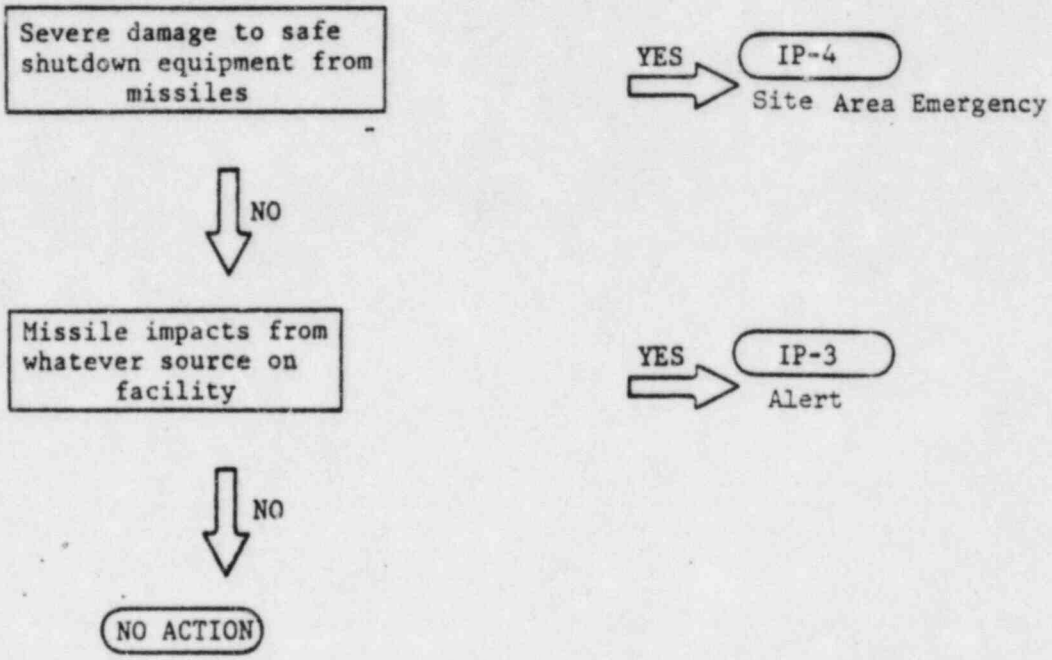
TRAIN


Train
Derailment
On-Site
YES
IP-2
Notification of
Unusual Event
NO
NO ACTION

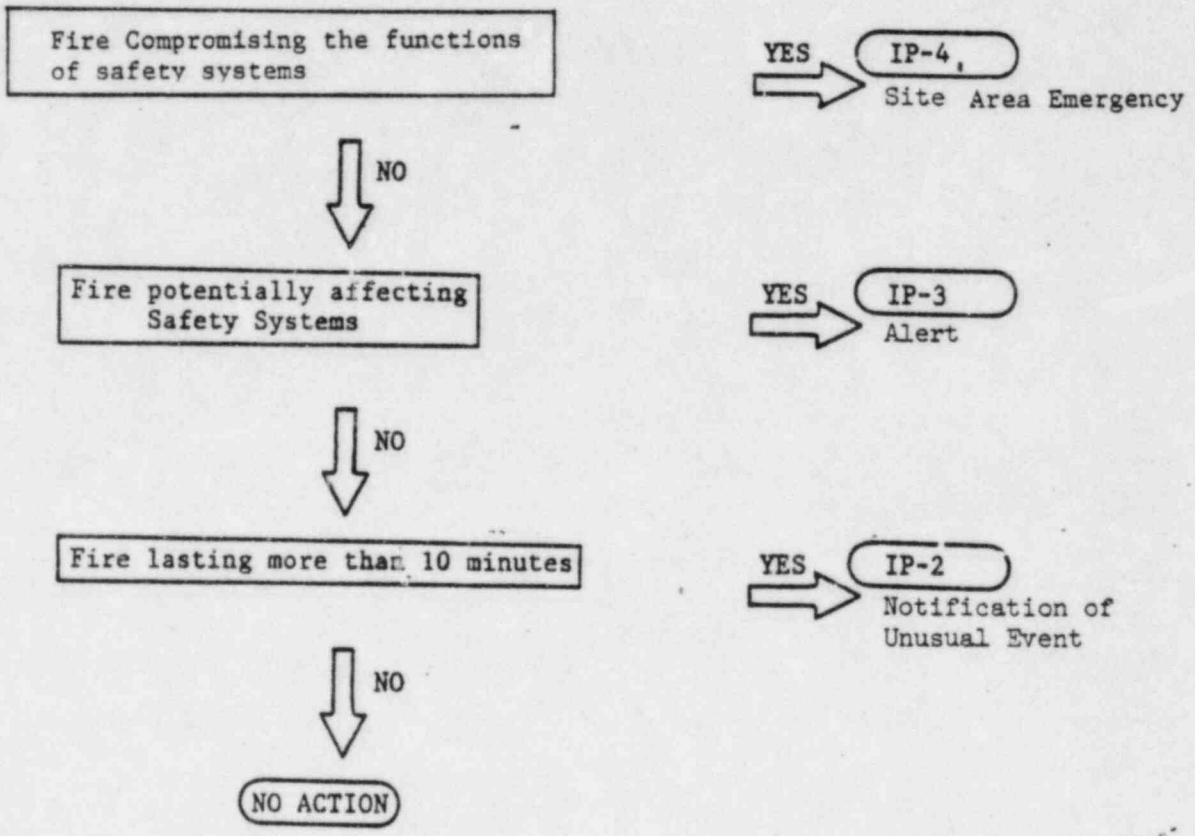
EXPLOSIONS


Severe Damage to Safe Shutdown Equipment From Explosions
YES
IP-4
Site Area Emergency
NO
Known explosion damage to facility affecting plant operation.
YES
IP-3
Alert
NO
Explosion onsite or within exclusion area
YES
IP-2
Notification of Unusual Event
NO
NO ACTION

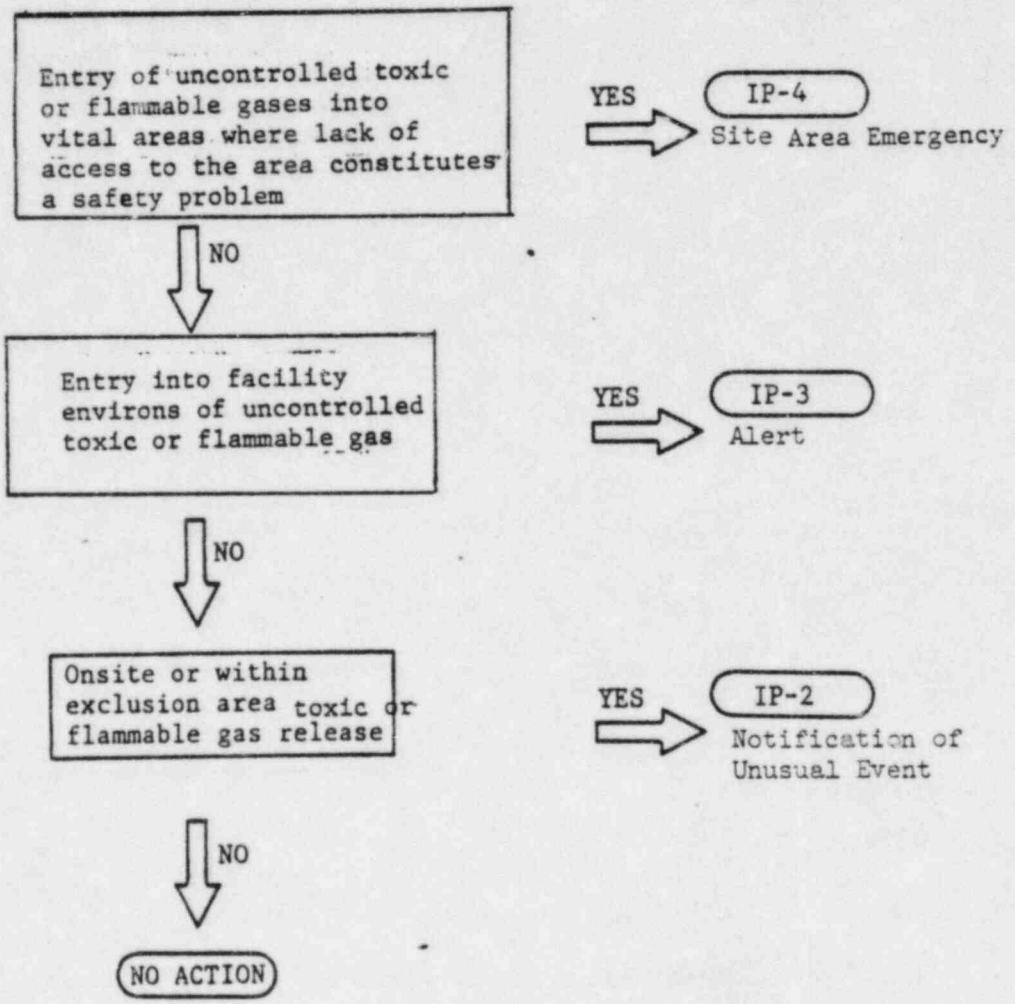
MISSILES


Severe damage to safe shutdown equipment from missiles
YES
IP-4
Site Area Emergency
NO
Missile impacts from whatever source on facility
YES
IP-3
Alert
NO
NO ACTION

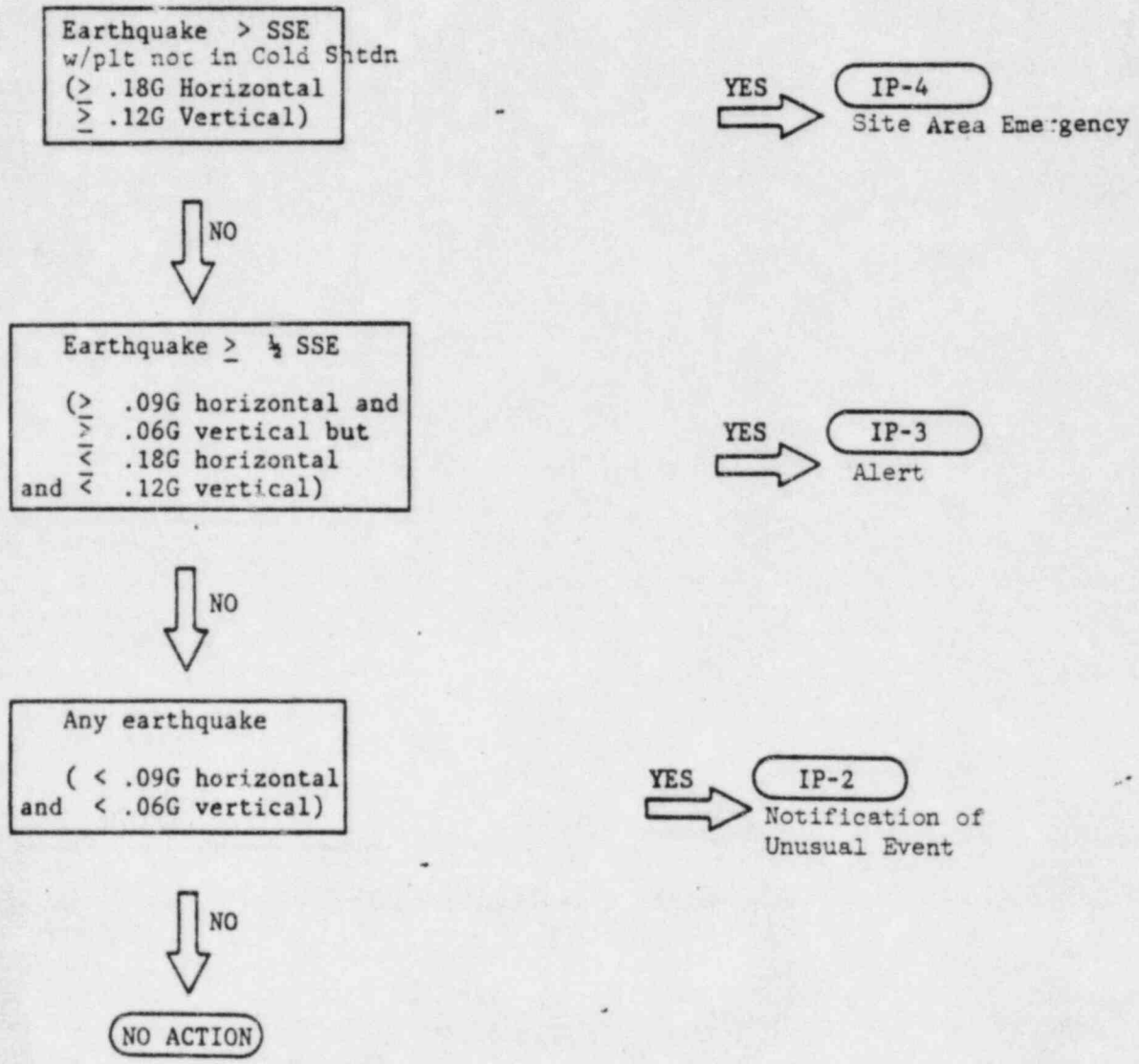
FIRE


Fire Compromising the functions of safety systems
YES
IP-4,
Site Area Emergency
NO
Fire potentially affecting Safety Systems
YES
IP-3
Alert
NO
Fire lasting more than 10 minutes
YES
IP-2
Notification of Unusual Event
NO
NO ACTION

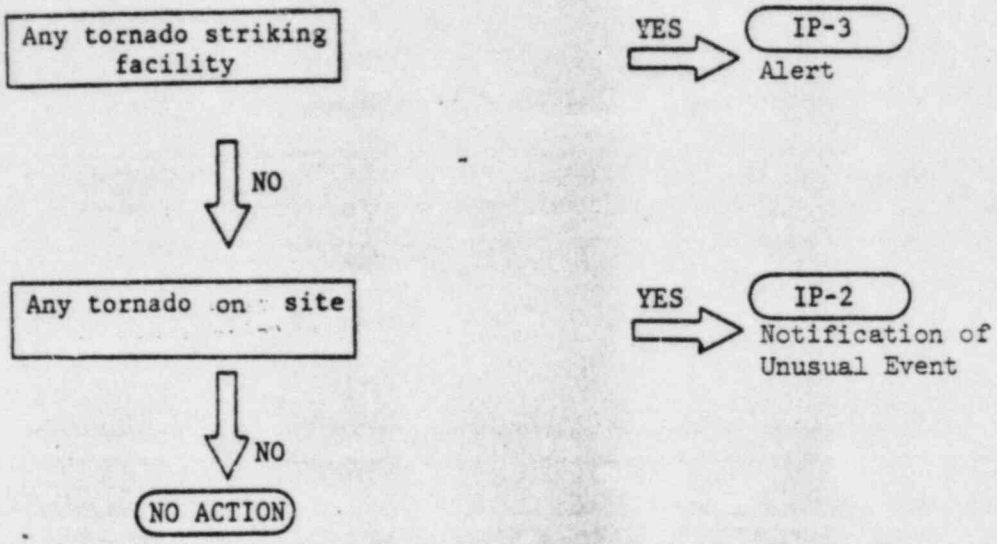
GASES: TOXIC OR FLAMMABLE



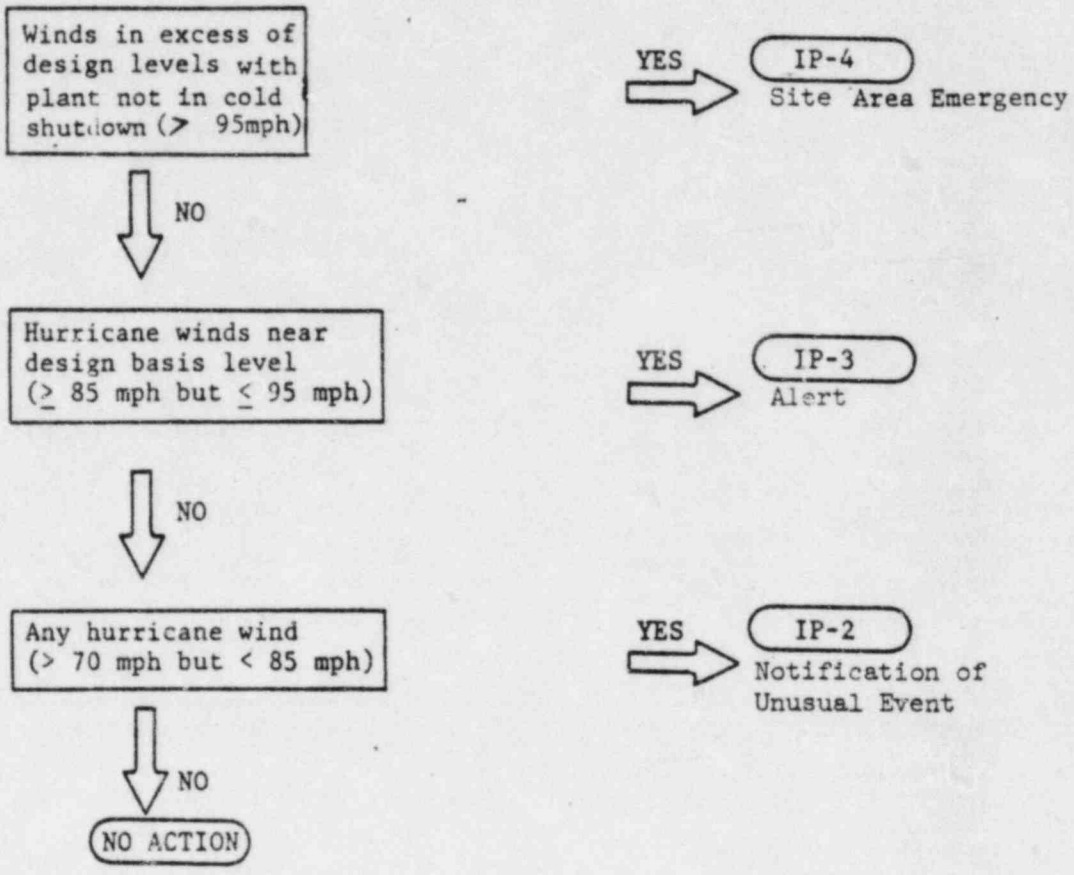
EARTHQUAKE


Earthquake > SSE
w/plt not in Cold Shtdn
(≥ .18G Horizontal
≥ .12G Vertical)
YES
IP-4
Site Area Emergency
NO
Earthquake ≥ ½ SSE
(≥ .09G horizontal and
≥ .06G vertical but
≤ .18G horizontal
and ≤ .12G vertical)
YES
IP-3
Alert
NO
Any earthquake
(< .09G horizontal
and < .06G vertical)
YES
IP-2
Notification of
Unusual Event
NO
NO ACTION

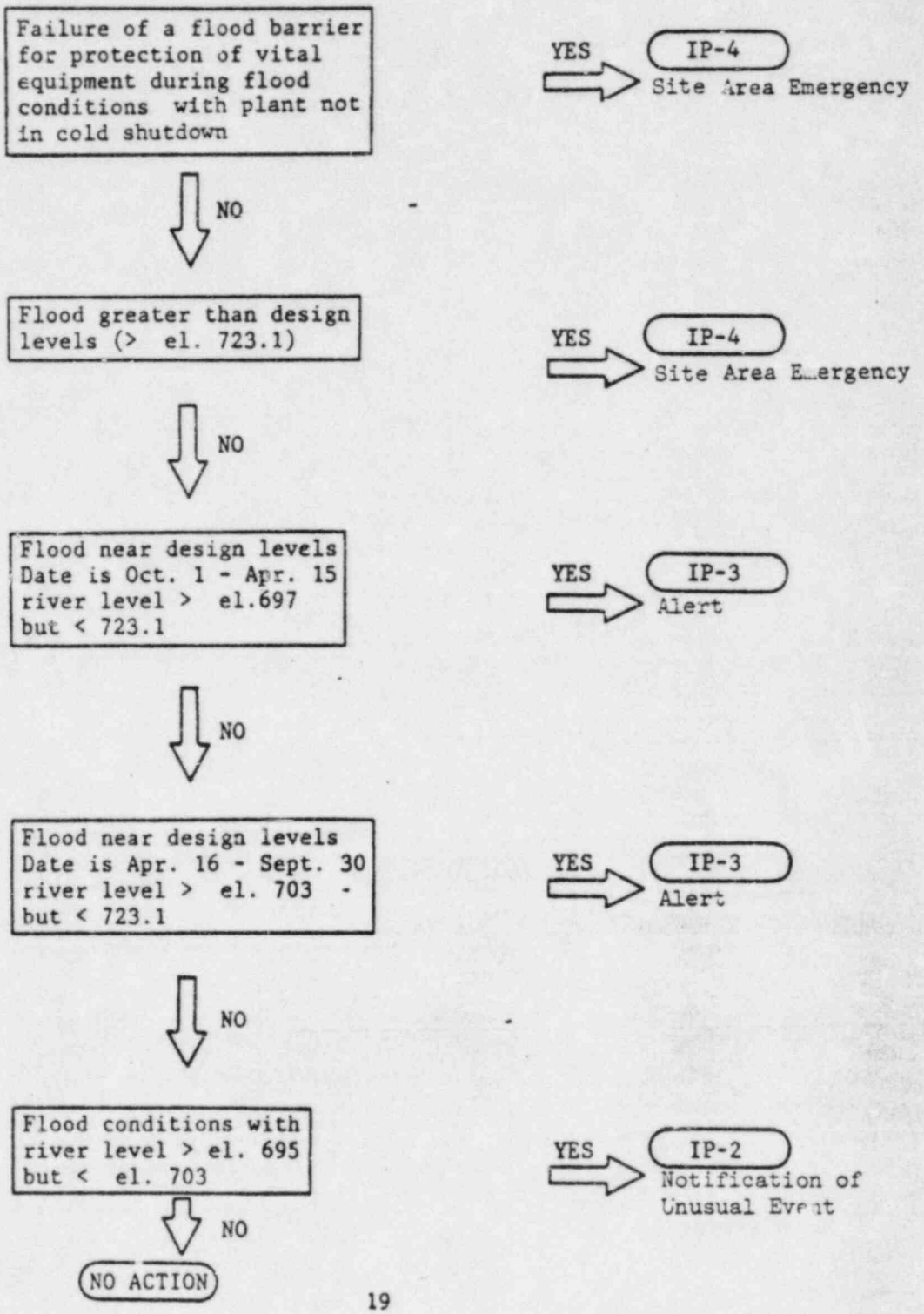
TORNADO


Any tornado striking facility
YES
IP-3
Alert
NO
Any tornado on site
YES
IP-2
Notification of Unusual Event
NO
NO ACTION

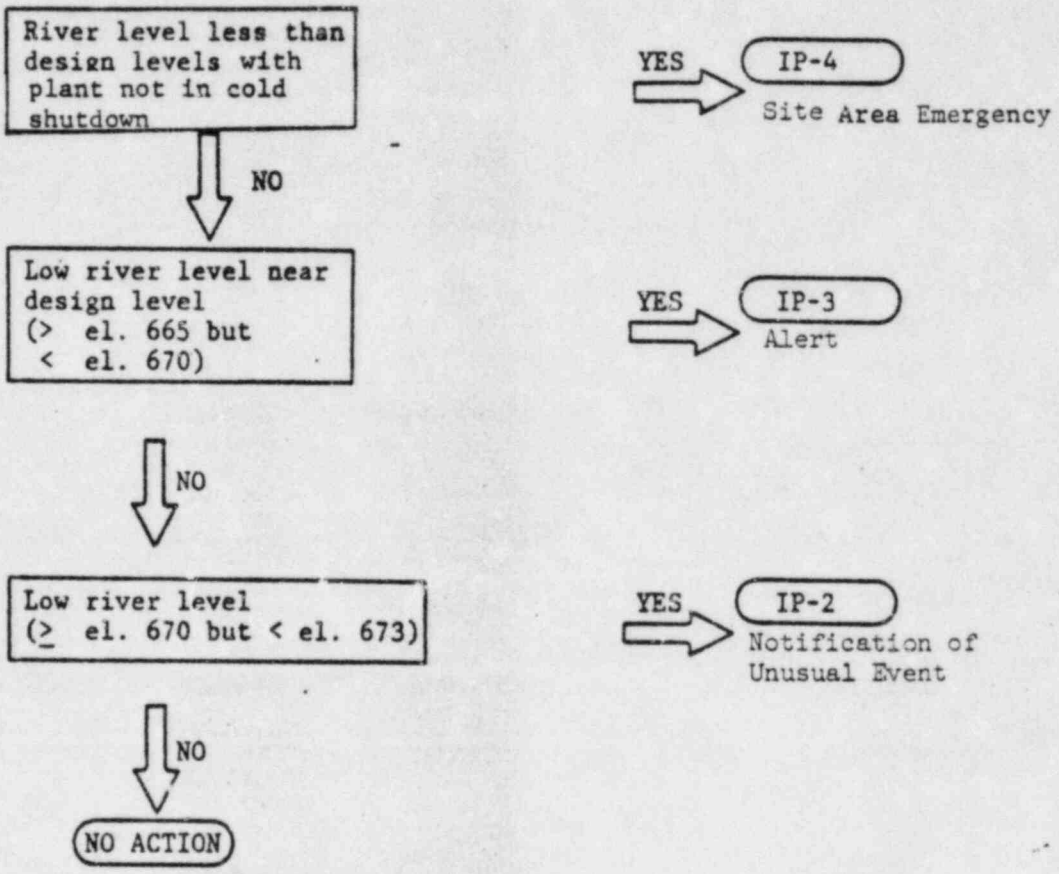
HIGH WINDS


Winds in excess of design levels with plant not in cold shutdown (> 95mph)
YES
IP-4
Site Area Emergency
NO
Hurricane winds near design basis level (≥ 85 mph but ≤ 95 mph)
YES
IP-3
Alert
NO
Any hurricane wind (> 70 mph but < 85 mph)
YES
IP-2
Notification of Unusual Event
NO
NO ACTION

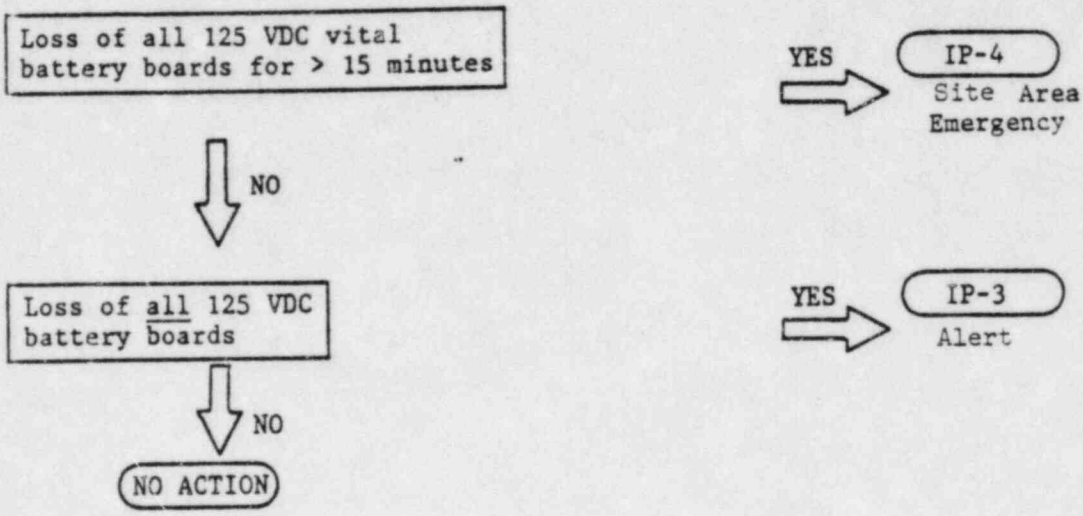
FLOOD


Failure of a flood barrier for protection of vital equipment during flood conditions with plant not in cold shutdown
YES
IP-4
Site Area Emergency
NO
Flood greater than design levels (> el. 723.1)
YES
IP-4
Site Area Emergency
NO
Flood near design levels Date is Oct. 1 - Apr. 15 river level > el.697 but < 723.1
YES
IP-3
Alert
NO
Flood near design levels Date is Apr. 16 - Sept. 30 river level > el. 703 - but < 723.1
YES
IP-3
Alert
NO
Flood conditions with river level > el. 695 but < el. 703
YES
IP-2
Notification of Unusual Event
NO
NO ACTION

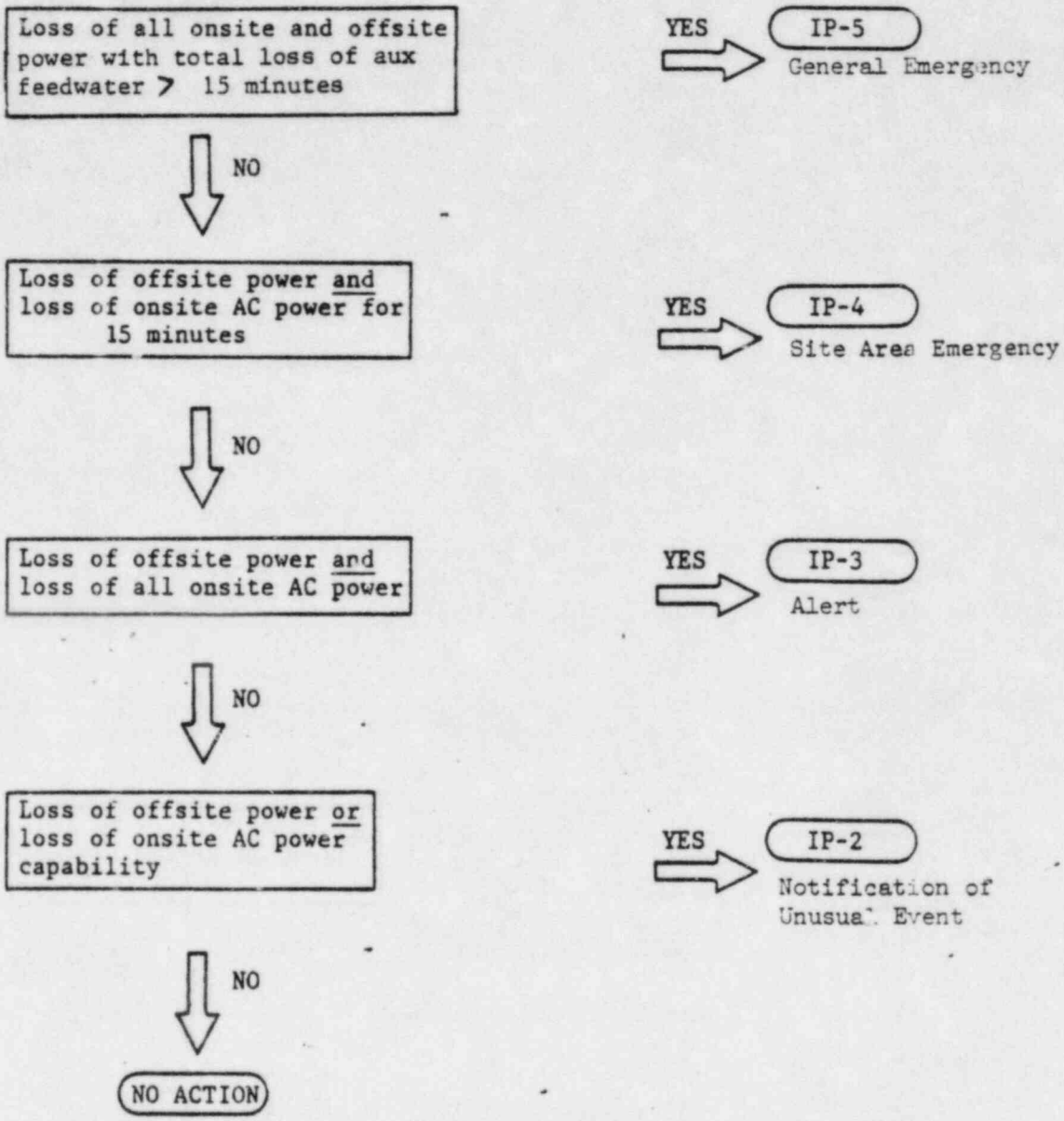
LOW WATER


River level less than design levels with plant not in cold shutdown
YES
IP-4
Site Area Emergency
NO
Low river level near design level (> el. 665 but < el. 670)
YES
IP-3
Alert
NO
Low river level (≥ el. 670 but < el. 673)
YES
IP-2
Notification of Unusual Event
NO
NO ACTION

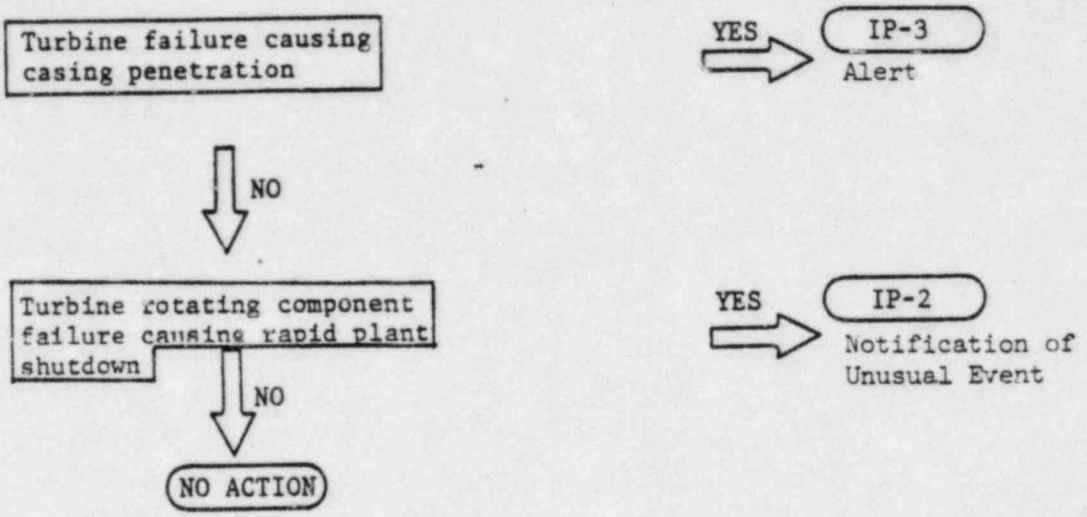
ELECTRICAL: DC PROBLEM



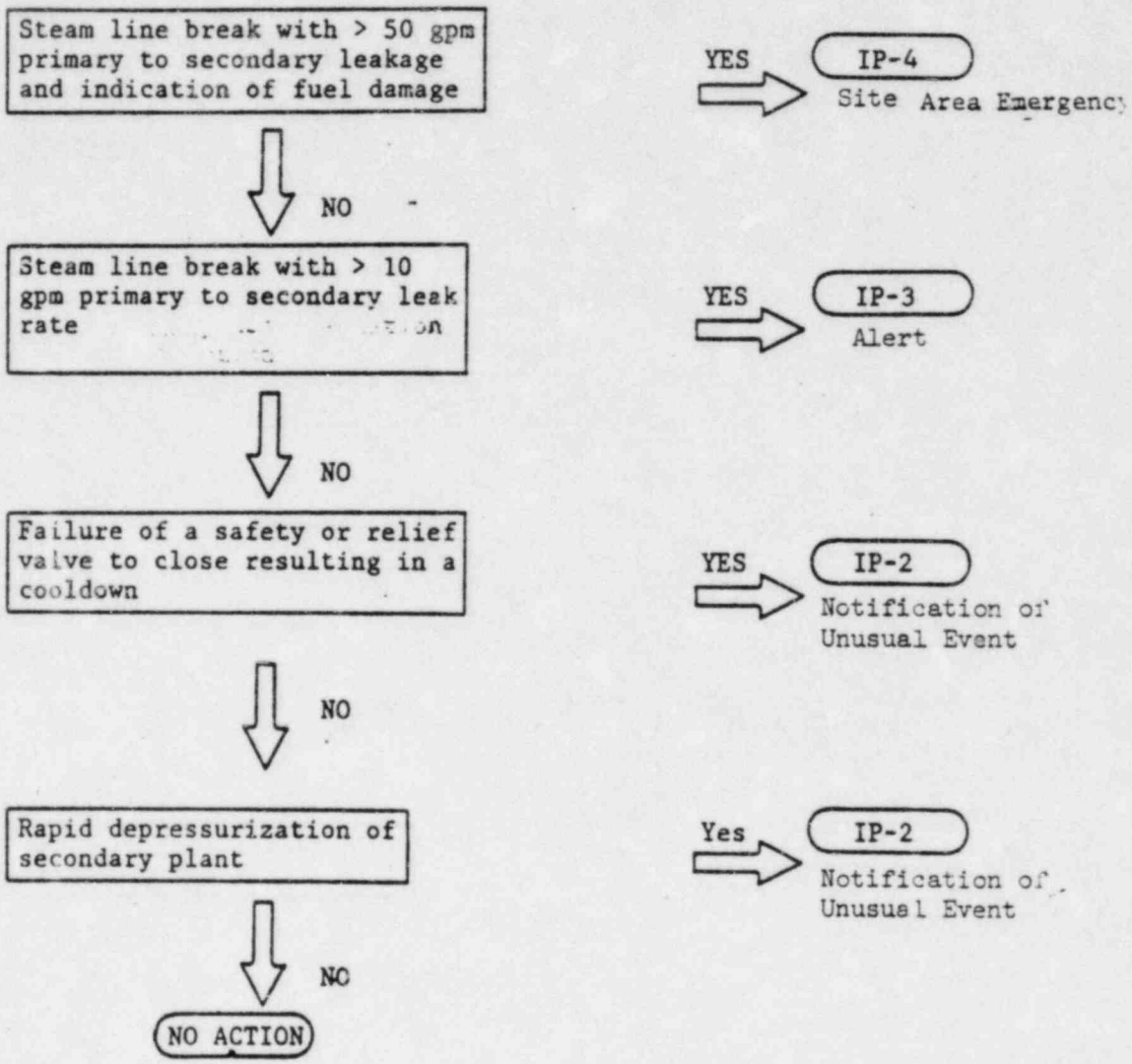
ELECTRICAL: AC PROBLEM



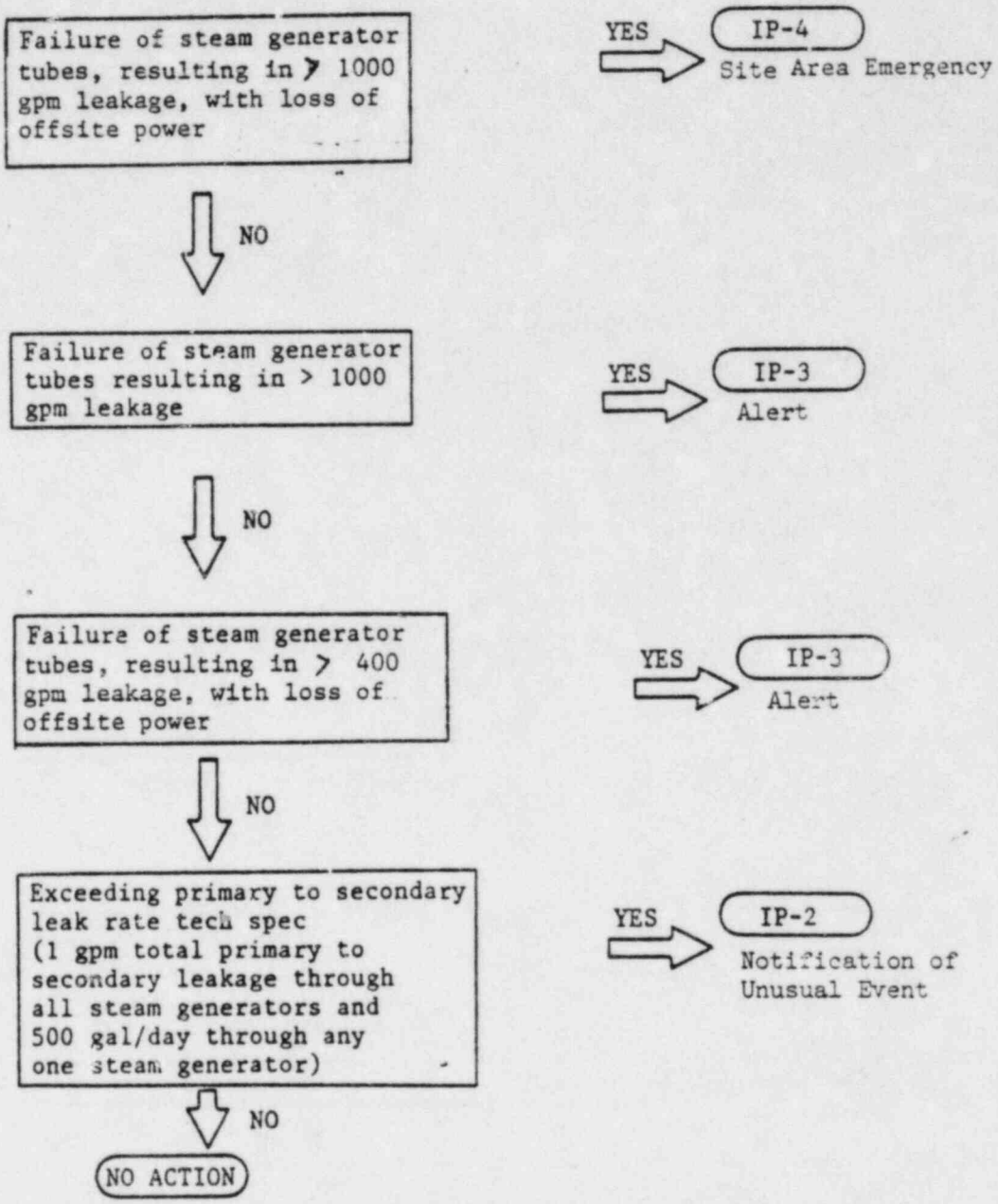
TURBINE FAILURE



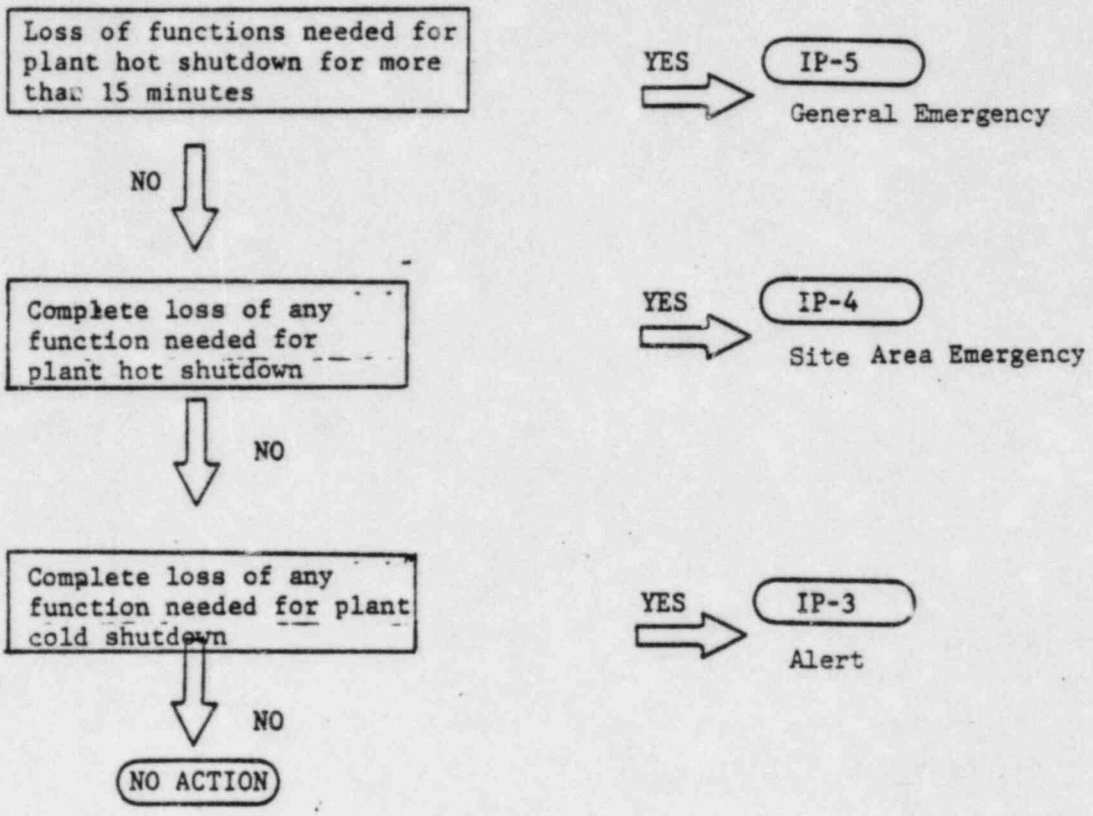
STEAMLINE BREAK



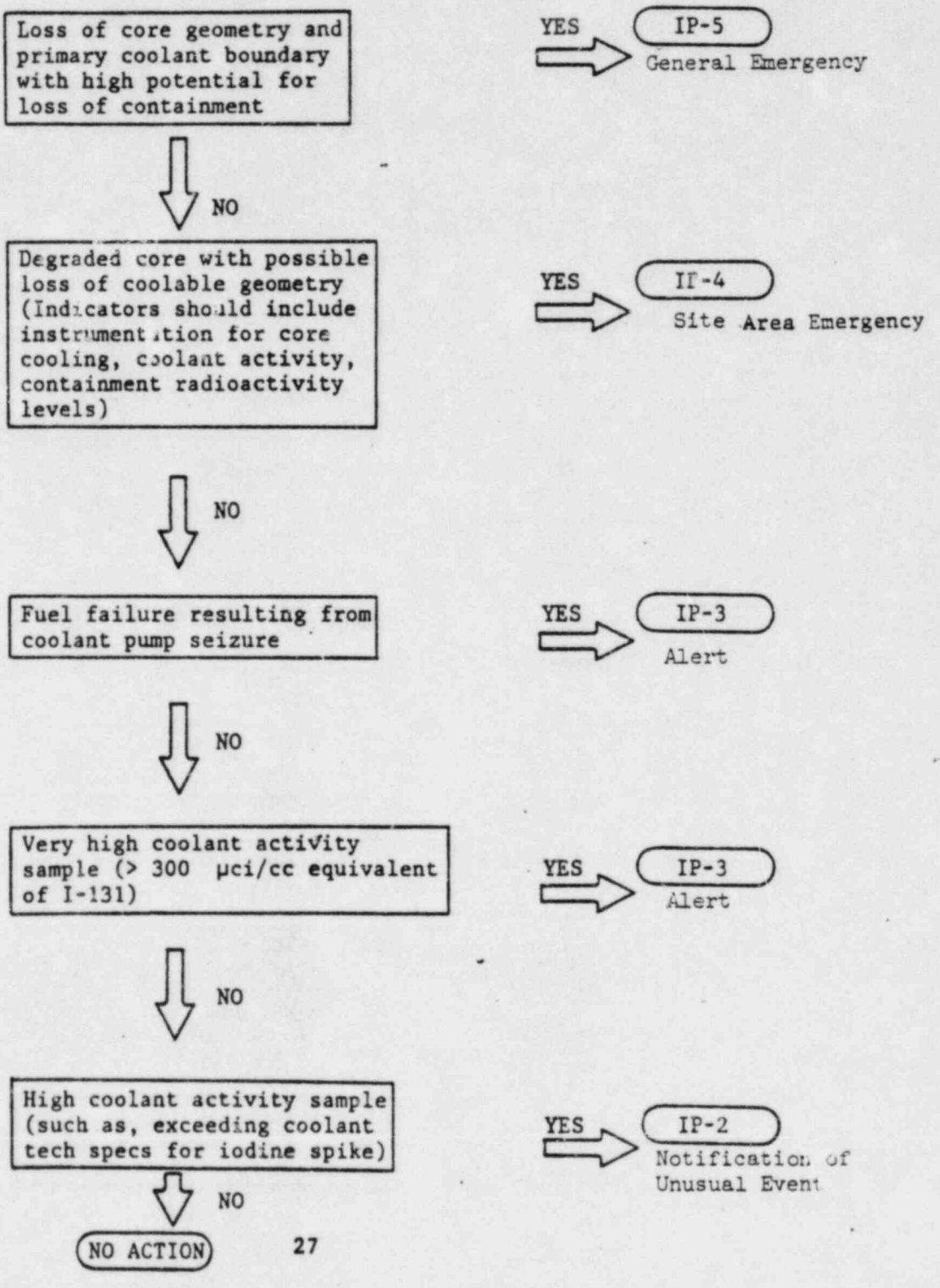
STEAM GENERATOR TUBE LEAKAGE



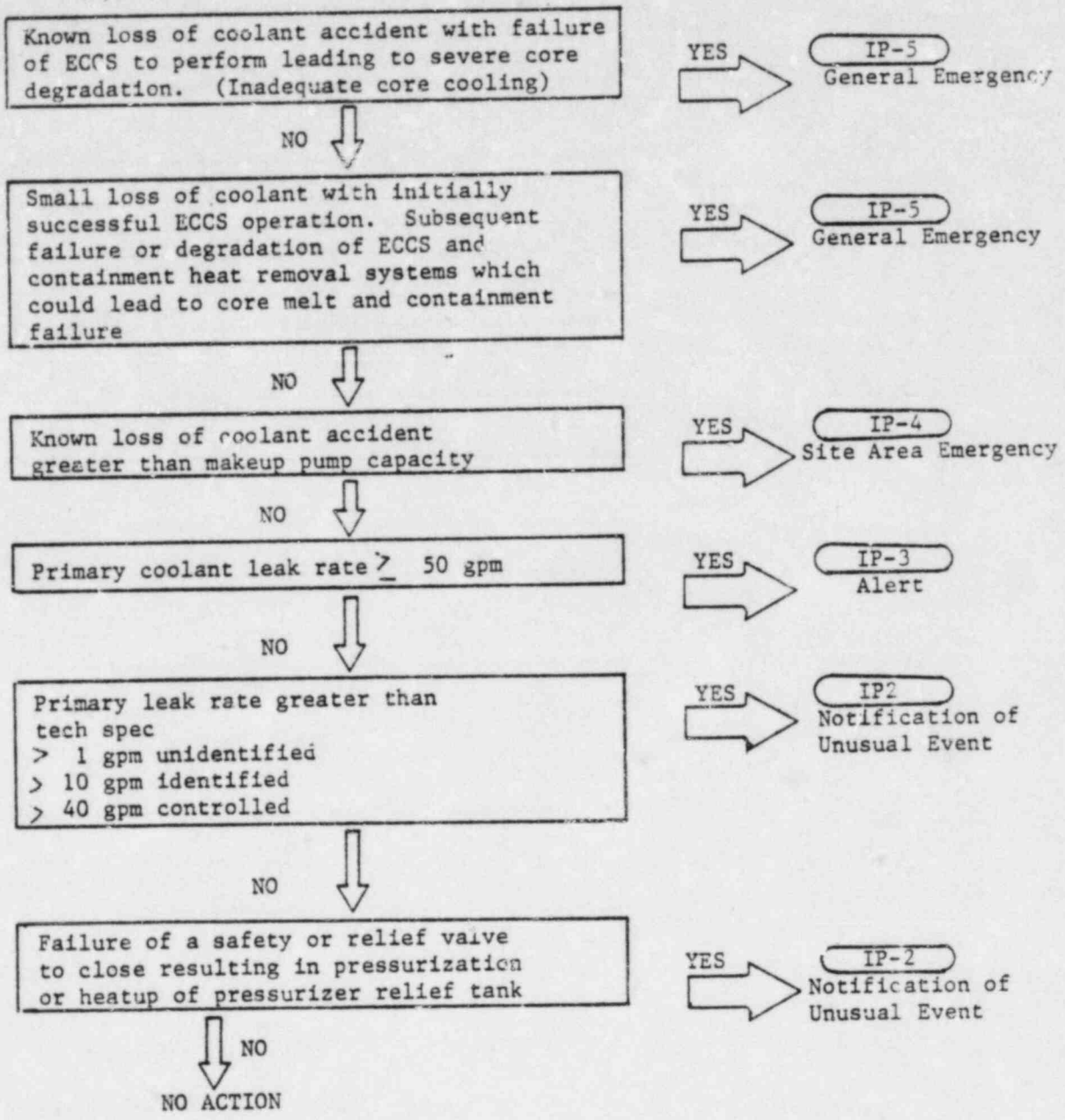
LOSS OF COOLDOWN CAPABILITIES



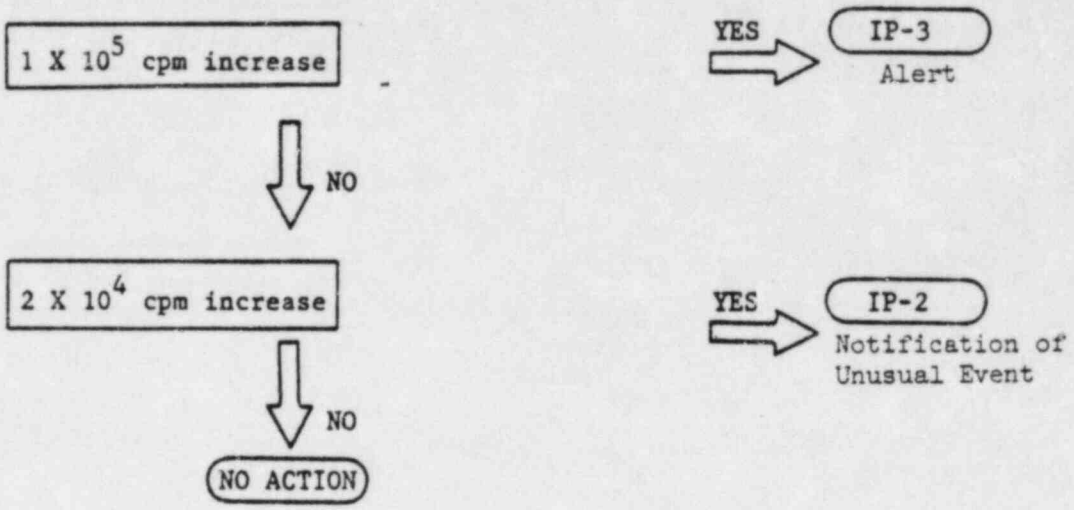
FUEL (CORE) DAMAGE



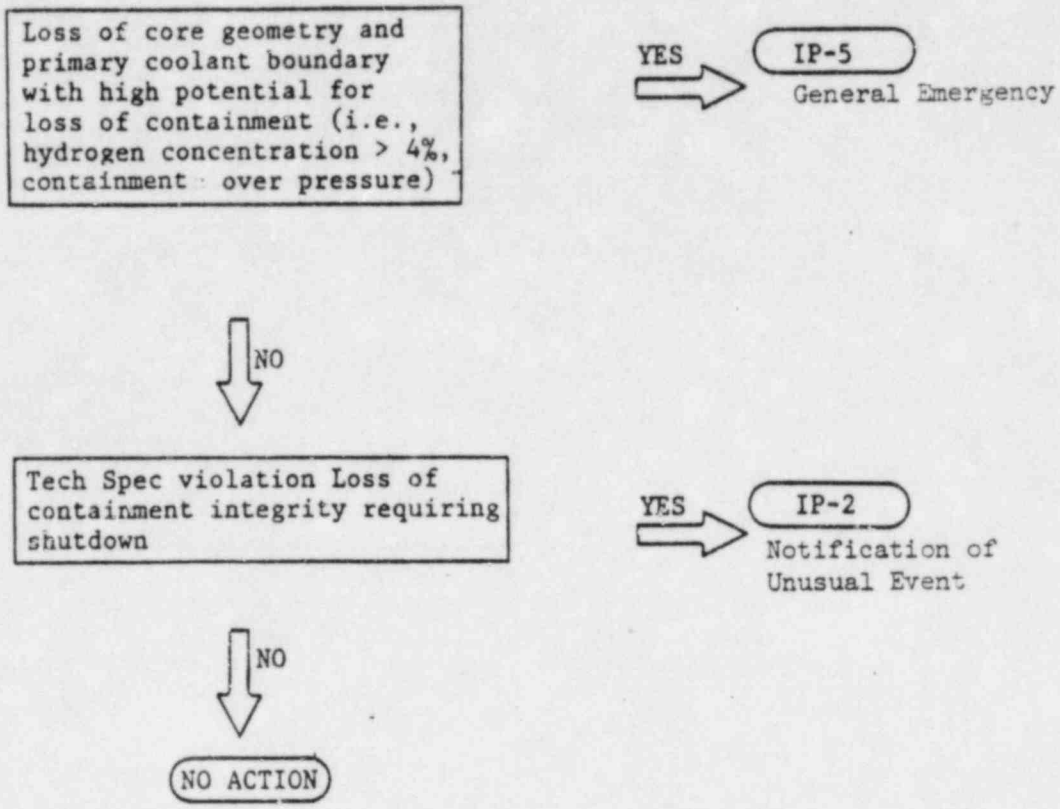
PRIMARY COOLANT LEAKAGE



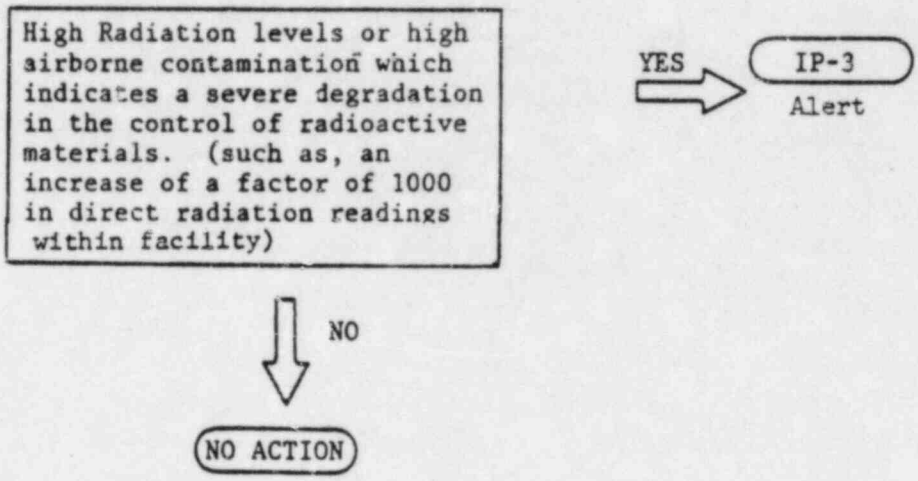
FAILED FUEL MONITOR



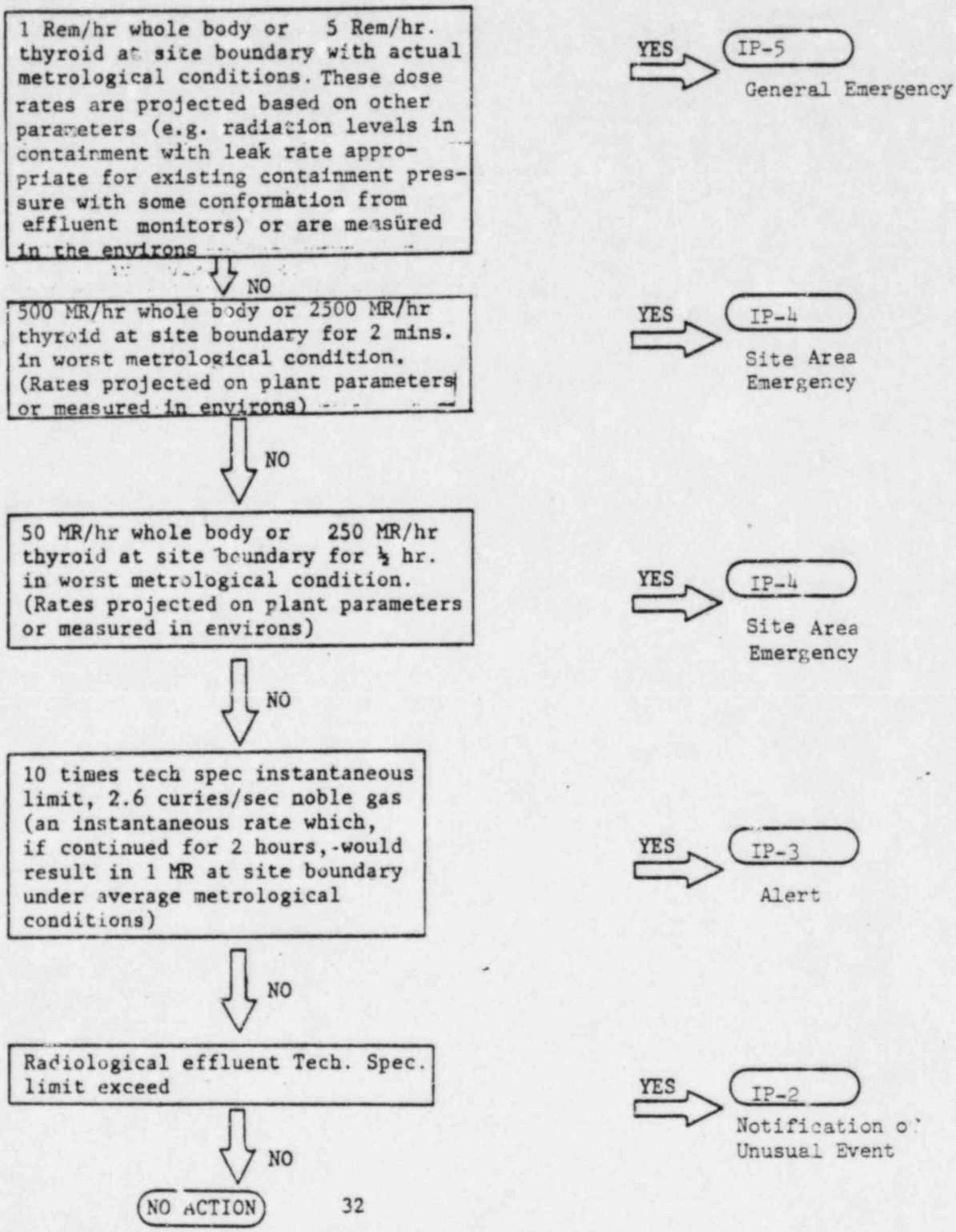
CONTAINMENT INTEGRITY



AREA RADIATION LEVELS



RADIOLOGICAL EFFLUENTS



OFFSITE DOSE ASSESSMENT

Known loss of coolant accident and shield building vent monitor, RM90-260, indicates a radiation level of 154 mR/hr (corresponds to 1 R/hr dose at site boundary under worst case conditions)-Sum of U1 and U2 monitors.

YES → IP-5 General Emergency

OR

Airborne release rate from all sources ≥:
- Noble Gas 2.6×10^7 µCi/s, or
- Total Iodine 1.9×10^3 µCi/s, or
- Iodine-131 1.3×10^3 µCi/s

(To be determined by grab sample)

YES → IP-5 General Emergency

NO

Known loss of coolant accident and shield building vent monitor, RM90-100, indicates a radiation level of 1×10^7 cpm for 1/2 hr. (Corresponds to 50 mR/hr dose at site boundary under worst case conditions)-Sum of U1 and U2 monitors.

YES → IP-4 Site Area Emergency

OR

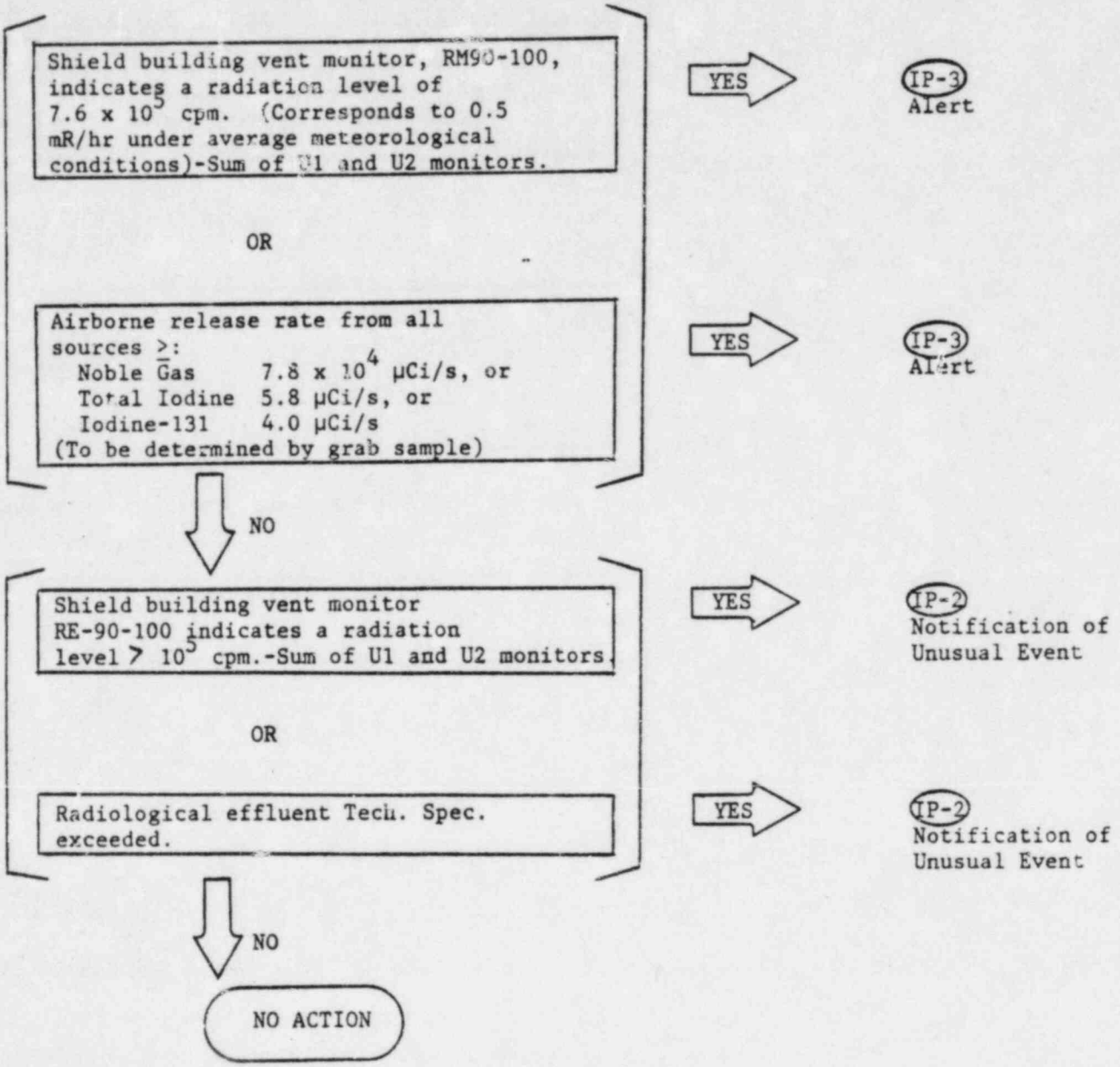
Airborne release rate from all sources ≥:
- Noble Gas (2 min. release) 1.3×10^7 µCi/s, or
- (1/2 hr. release) 1.3×10^6 µCi/s, or
- Iodine-131 (2 min. release) 6.5×10^2 µCi/s, or
- (1/2 hr. release) 65 µCi/s

(To be determined by grab sample)

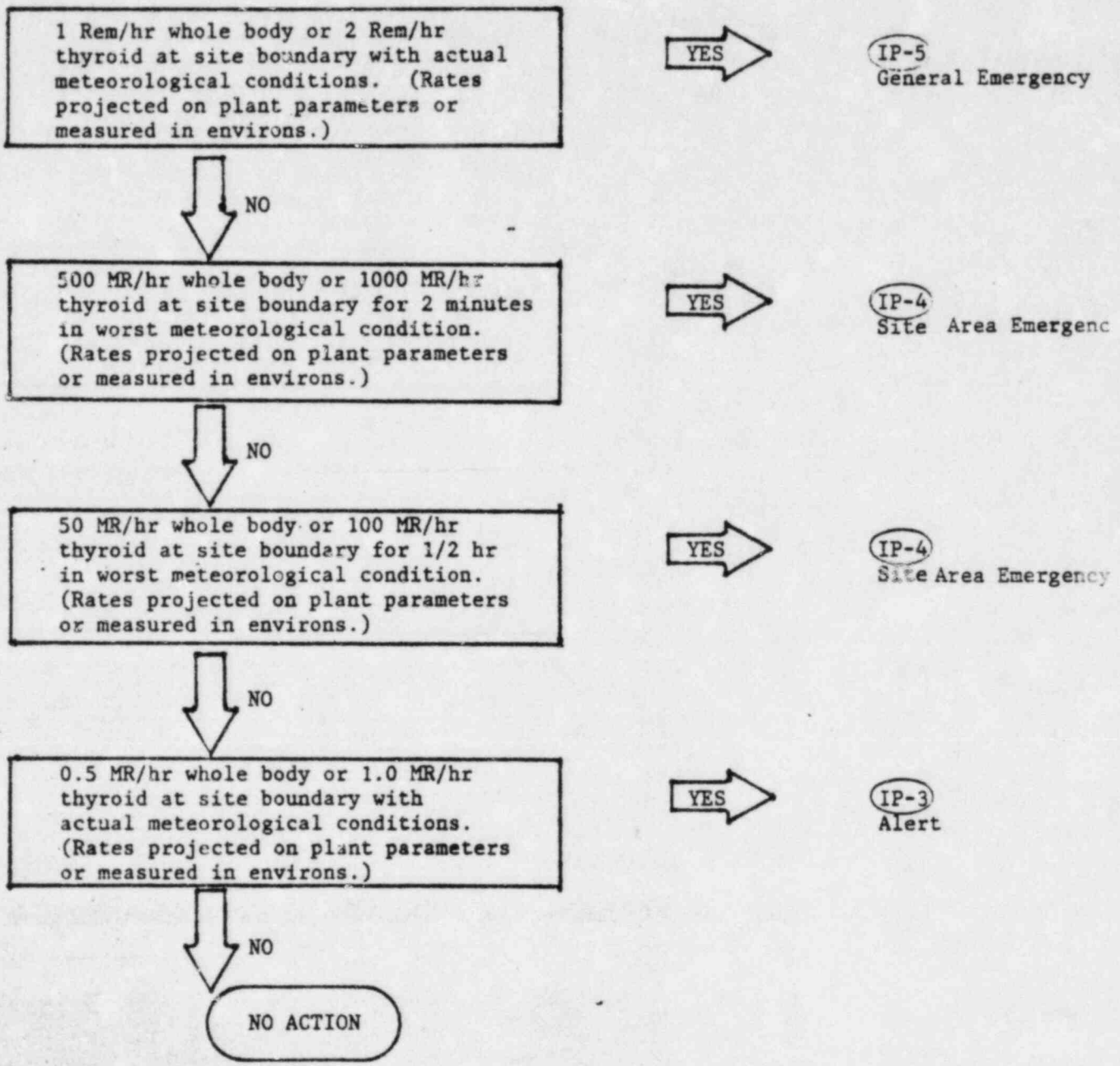
YES → IP-4 Site Area Emergency

NO

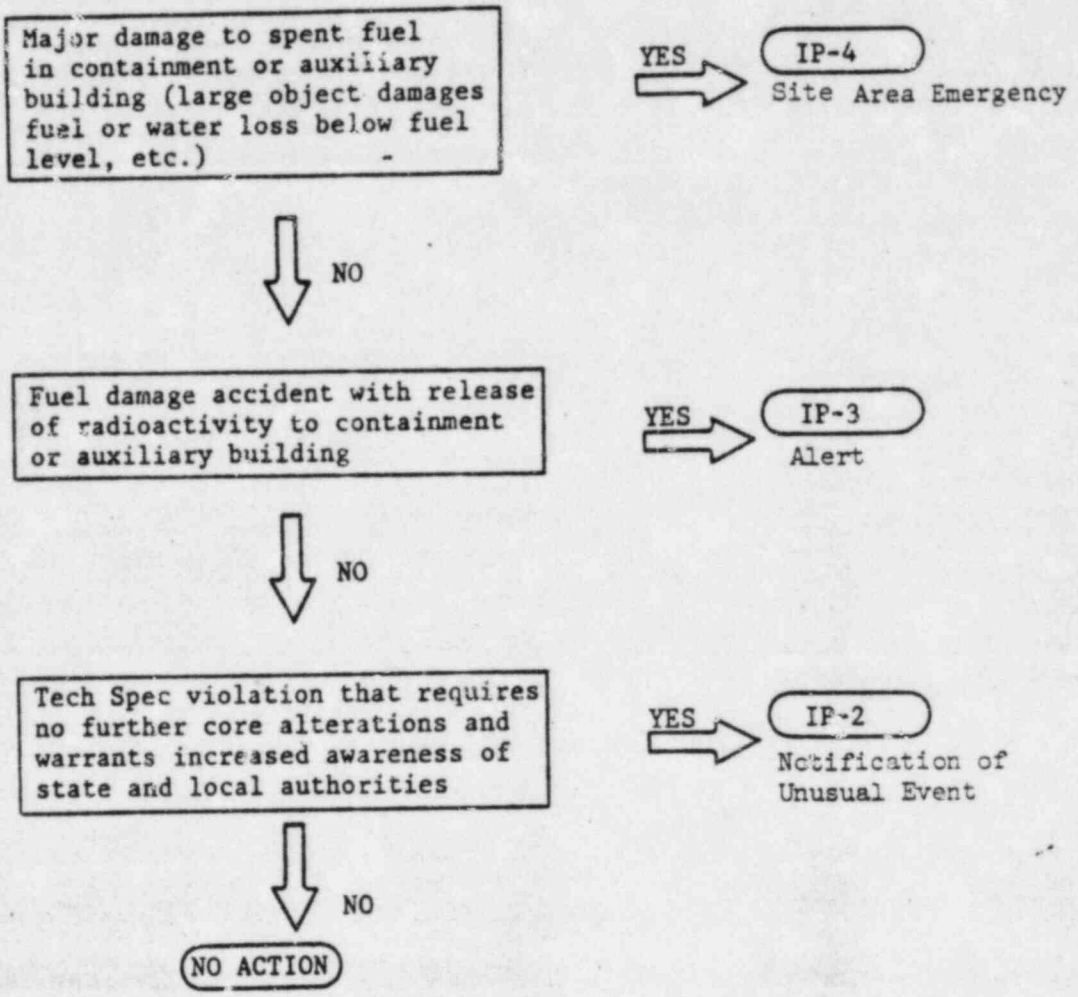
OFFSITE DOSE ASSESSMENT (Continued)



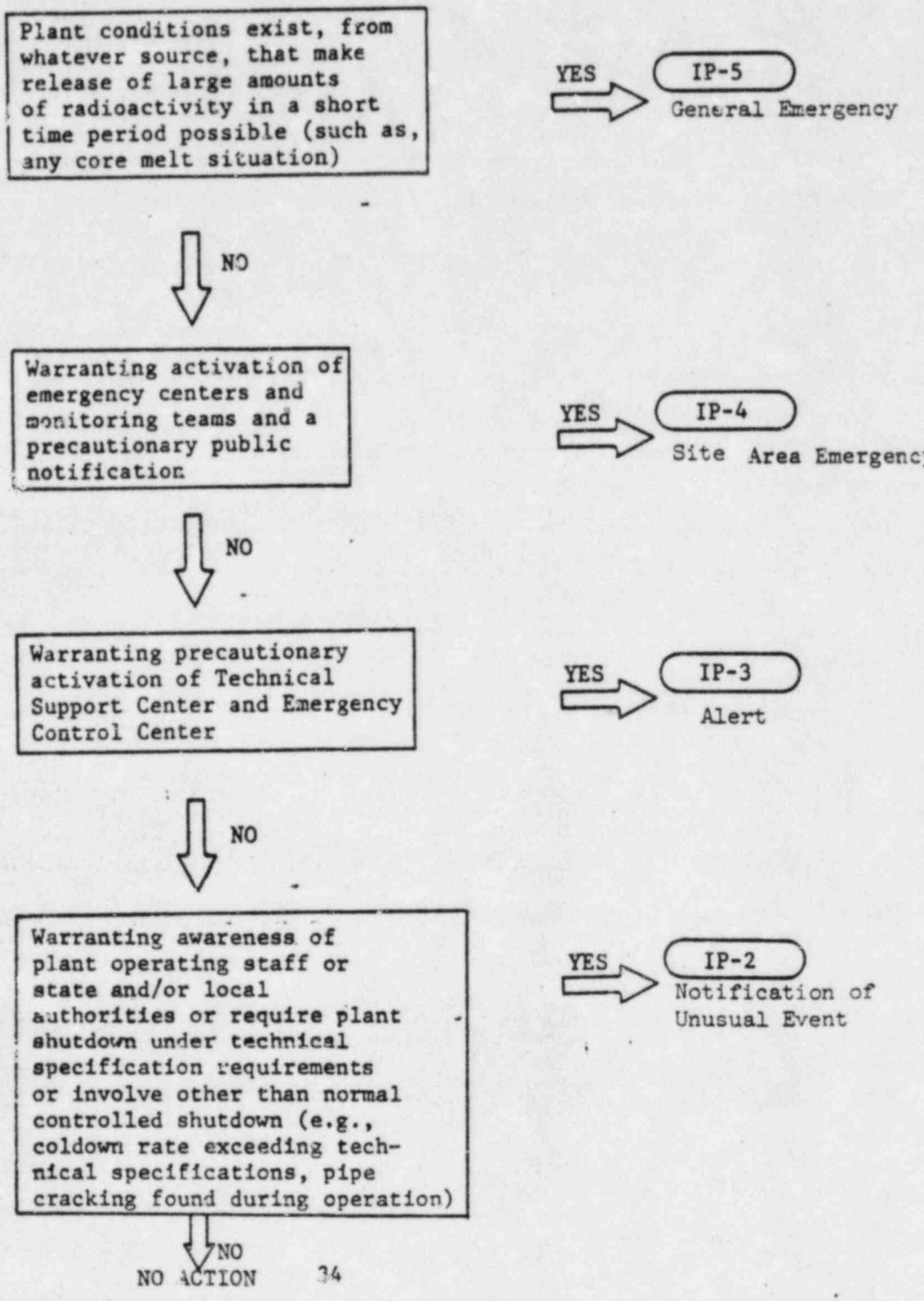
OFFSITE DOSE ASSESSMENT (Continued)



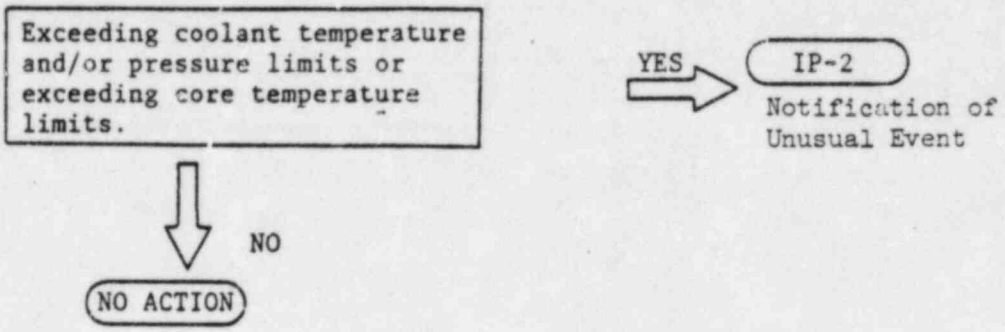
FUEL HANDLING INCIDENT



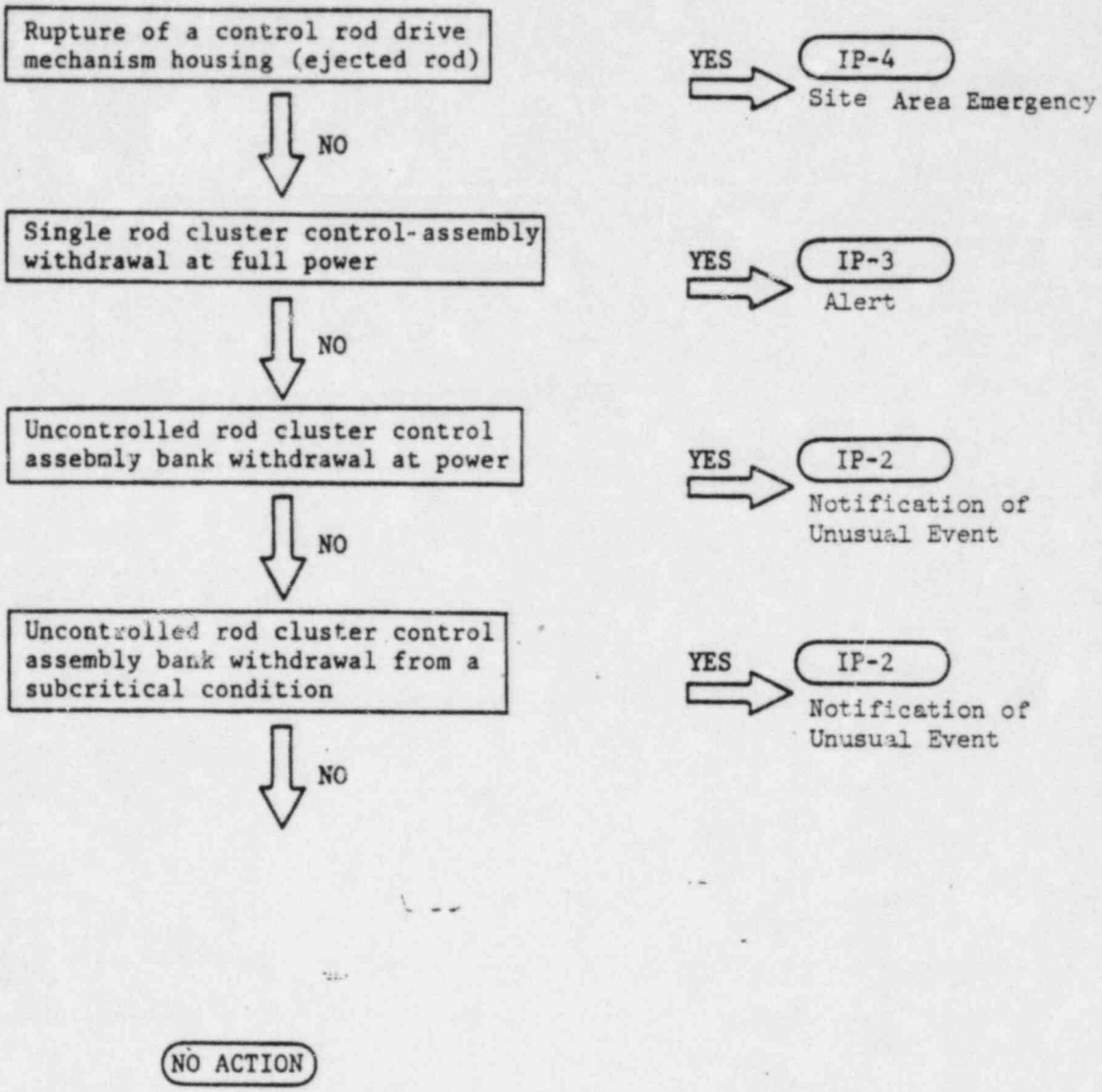
ABNORMAL PLANT CONDITIONS



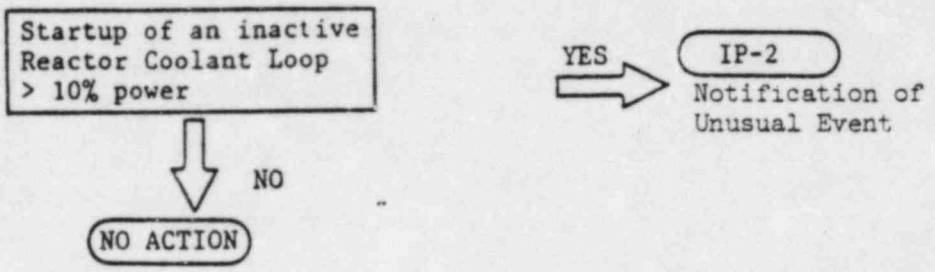
SAFETY LIMITS



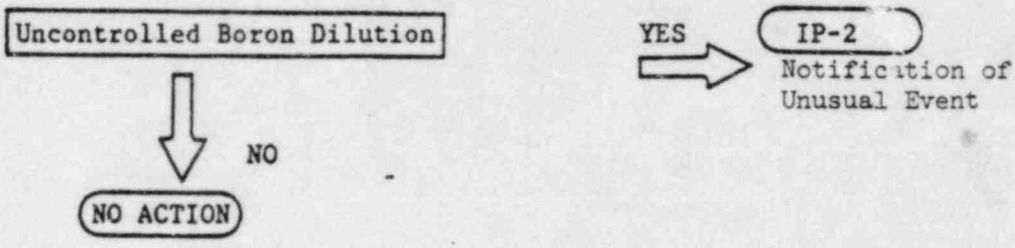
REACTOR CONTROL ROD PROBLEMS



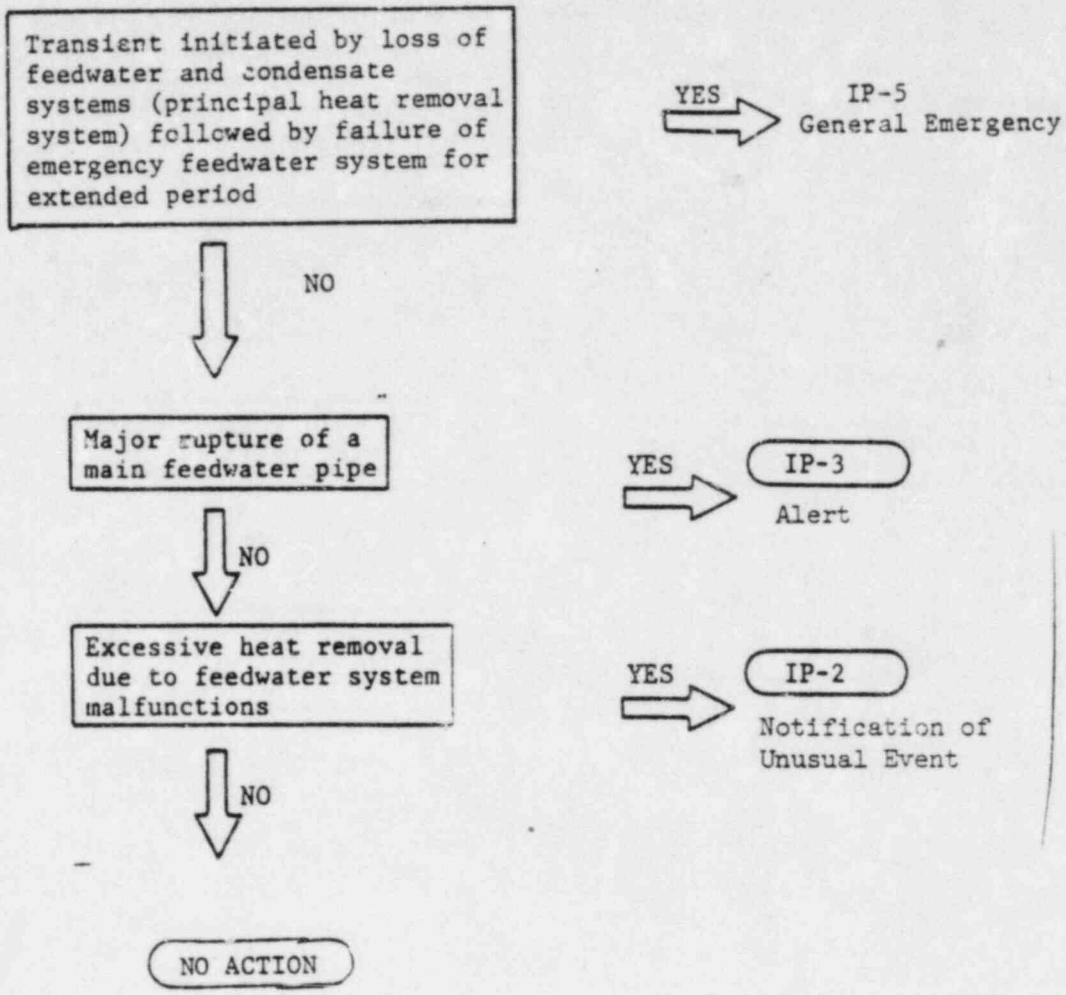
INACTIVE REACTOR COOLANT LOOP



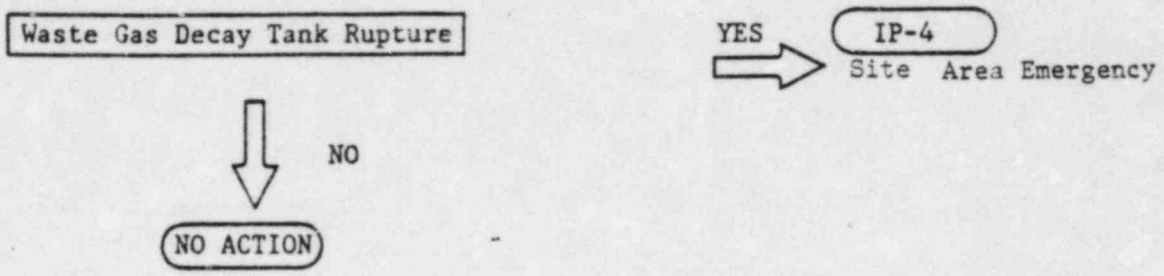
BORON DILUTION



FEEDWATER
(NORMAL AND AUXILIARY)



WASTE GAS DECAY TANKS



Sequoyah Nuclear Plant

SQN REP - IMPLEMENTING PROCEDURES DOCUMENT

SQN, IP-3

ALERT

Prepared By: J.R. Walker

Revised By: R.J. Kitts

Submitted By: R. J. Kitts
Supervisor

PORC Review: 12/29/82
Date

Approved By: J E Cross
Pwr Plt Superintendent

Date Approved: 12/29/82

DISTRIBUTION

1C	81 Plant Master File
1C	83 Asst. Power Plant Supt. (Oper.)
1C	84 Asst. Power Plant Supt. (Maint.)
1C	86 Maintenance Supervisor (M)
1C	87 Maintenance Supervisor (E)
1C	88 Maintenance Supervisor (I)
1C	89 Results Supervisor
1C	90 Operations Supervisor
1C	92 Health Physics Supervisor
1C	93 Public Safety Services Supv.
1C	95 Outage Director
1C	96 Emergency Cabinet Control Room
1C	97 Emergency Cabinet Communications Room
1C	98 Emergency Van
1C	102 Shift Engineer's Office
1C	103 Unit Control Room
1C	105 Health Physics Laboratory
1C	106 Medical Office
1C	107 Resident NRC Inspector - SNP
1C	108 Technical Support Center
1C	109 Assistant HP Supervisor
1C	110 Plant Duty Supervisor
1C	111 Asst. Power Plant Supt. (H&S)
1C	EP&P - Eric Sliger - 1470 CST2-C

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	8/5/80	All	4	10/26/82	2
1	10/10/80	2	5	12-29-82	All
2	12/2/81	1			
3	3/11/82	1			

The last page of this instruction is Number 2.

ALERT

1.0 PURPOSE

1.1 To provide a method for timely notification of appropriate individuals when the Shift Engineer has determined by IP-1 that an incident has occurred which is classified as an ALERT.

1.2 To provide a method for periodic reanalysis of the current situation by the Site Emergency Director to determine whether the Alert action should be canceled, continued, upgraded, or downgraded to another classification.

2.0 INSTRUCTION

2.1 Upon determining that existing conditions are classified as an Alert according to IP-1, the Shift Engineer will:

(Initials)

_____ 1. Evaluate plant conditions and, if conditions warrant, activate emergency sirens for personnel assembly and initiate IP-8, 9, 14 and 20 if needed.

_____ 2. Notify the Operations Duty Specialist direct by Dimension telephone number 7-200 or alternate Chattanooga number 8-0200 and state the following:

a. Your name

b. Sequoyah Nuclear Plant

c. Alert

d. Time of incident

e. Brief description of incident

f. Plant condition (whether stable or deteriorating)

g. Unusual release of radioactivity (Yes or NO)

h. Direction wind is coming from _____ and speed _____

i. Recommend initial protective actions for the public:

(None)

____ 3. Notify the Plant Duty Supervisor and provide the same information given to Operations Duty Specialist (see duty list for telephone numbers).

____ 4. Notify the Health Physics Laboratory.

____ 5. Initiate IP-6 - The Shift Engineer's clerk will contact one individual in each section of the call list (in IP-6) during off hours or any hour when an ALERT condition is declared without initiation of the emergency evacuation alarm.

2.2 The Site Emergency Director will:

____ 1. If there is an indication that any personnel are injured, initiate IP-10, Medical.

____ 2. If there is an indication of a security threat, initiate IP-11.

____ 3. Initiate IP-7 (Activiation of the Operations Support Center).

____ 4. Notify the NRC by ring-down phone of plan activiation in accordance with AI-18, File package 18.

____ 5. At least every two hours or more frequently if conditions warrant, reevaluate the event using IP-1.

a. If the situation no longer exists or should be downgraded, cancel or downgrade the Alert by informing the Operations Duty Specialist and the Plant Duty Supervisor.

b. If the condition warrants upgrading to a higher classification, intiate the appropriate steps in the procedure (IP-4 or IP-5) for the more serious conditions.

____ 6. If a significant radiation release has occured in containment as indicated by containment monitor(s) evaluate the need to implement TI-30 to determine the amount of Radioactivity being released through normal plant release points.

Sequoyah Nuclear Plant

SQN REP - IMPLEMENTING PROCEDURES DOCUMENT

SQN, IP-4

SITE AREA EMERGENCY

DISTRIBUTION

1C	81 Plant Master File
1C	83 Asst. Power Plant Supt. (Oper.)
1C	84 Asst. Power Plant Supt. (Maint.)
1C	86 Maintenance Supervisor (M)
1C	87 Maintenance Supervisor (E)
1C	88 Maintenance Supervisor (I)
1C	89 Results Supervisor
1C	90 Operations Supervisor
1C	92 Health Physics Supervisor
1C	93 Public Safety Services Supv.
1C	95 Outage Director
1C	96 Emergency Cabinet Control Room
1C	97 Emergency Cabinet Communications Room
1C	98 Emergency Van
1C	102 Shift Engineer's Office
1C	103 Unit Control Room
1C	105 Health Physics Laboratory
1C	106 Medical Office
1C	107 Resident NRC Inspector - SNP
1C	108 Technical Support Center
1C	109 Assistant HP Supervisor
1C	110 Plant Duty Supervisor
1C	111 Asst. Power Plant Supt. (H&S)
1C	EP&P - Eric Sliger, 1470 CST2-C

Prepared By: J.R. Walker

Revised By: R.J. Kitts

Submitted By: R.J. Kitts
Supervisor

PORC Review: 12/29/82
Date

Approved By: J.E. Cross
Pwr Plt Superintendent

Date Approved: 12/29/82

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	8/5/80	All	4	10/26/82	2
1	10/28/80	2	5	12-29-82	All, Title Change
2	12/2/81	1			
3	03/11/82	1			

The last page of this instruction is Number 2.

SITE AREA EMERGENCY

1.0 PURPOSE

1.1 To provide a method for timely notification of appropriate individuals when the Shift Engineer has determined by IP-1 that an incident has occurred which is classified as a Site Area Emergency.

1.2 To provide a method for periodic reanalysis of the current situation by the Site Emergency Director to determine whether the Site Area Emergency action should be canceled, continued, upgraded, or downgraded to another classification

2.0 INSTRUCTIONS

2.1 Upon determining that existing conditions are classified as a Site Area Emergency according to IP-1, the shift engineer will:

(Initials)

_____ 1. Activate emergency sirens for personnel assembly and initiate IP-8 and IP-9.

_____ 2. If conditions warrant, initiate IP-14 (Health Physics Procedures), IP-20 (Environmental Monitoring during a radiological emergency).

_____ 3. Notify the Operations Duty Specialist direct by Dimension telephone number 7-200 or alternate Chattanooga number 8-0200 and state the following:

a. Your name

b. Sequoyah Nuclear Plant

c. Site Area Emergency

d. Time of incident

e. Brief description of incident

f. Plant condition (whether stable or deteriorating)

g. Unusual release of radioactivity (Yes or No)

h. Direction wind is coming from _____ and speed _____

i. Recommend initial protective actions for the public:

(None)

(Initials)

_____ 4. Notify the health physics laboratory.

_____ 5. Notify the Plant Duty Supervisor and provide the same information given to Operations Duty Specialist (see duty list for telephone number).

_____ 6. During off shifts the Shift Engineer Clerk will contact one individual in each section of the call list in IP-6.

2.2 The Site Emergency Director shall:

_____ 1. If there is an indication that any personnel are injured, initiate IP-10, Medical.

_____ 2. If there is an indication of a security threat, initiate IP-11.

_____ 3. Initiate IP-7 (activation of the operation support center).

_____ 4. Notify the NRC by ring-down phone of plan activation in accordance with AI-18, File Package 18.

_____ 5. At least every two hours or more frequently if conditions warrant, reevaluate the event using IP-1.

a. If the situation no longer exists or should be down-graded downgrade the Site Area Emergency by informing the Operations Duty Specialist and the Plant Duty Supervisor.

b. If the condition warrants upgrading to a higher classification, initiate IP-5 for the more serious condition.

_____ 6. If a significant radiation release has occured in containment as indicated by containment monitor(s) evaluate the need to implement TI-30 to determine the amount of Radioactivity being released through normal plant release points.

Sequoyah Nuclear Plant

SQN REP - IMPLEMENTING PROCEDURES DOCUMENT

SQN, IP-5

GENERAL EMERGENCY

Prepared By: J.R. Walker

Revised By: R.J. Kitts

Submitted By: R.J. Kitts
Supervisor

PORC Review: 12/29/82
Date

Approved By: J.E. Gross
Pwr Plt Superintendent

Date Approved: 12/29/82

DISTRIBUTION

1C	81 Plant Master File
1C	83 Asst. Power Plant Supt. (Oper.)
1C	84 Asst. Power Plant Supt. (Maint.)
1C	86 Maintenance Supervisor (M)
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1C	88 Maintenance Supervisor (I)
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1C	106 Medical Office
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1C	110 Plant Duty Supervisor
1C	111 Asst. Power Plant Supt. (H&S)
1C	EP&P - Eric Sliger, 1470 CST2-C

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	8/5/80	All	4	10/26/82	2
1	10/21/80	2	5	12-29-82	All
2	12/2/81	1			
3	3/11/82	1			

The last page of this instruction is Number 2.

GENERAL EMERGENCY

1.0 PURPOSE

1.1 To provide a method for timely notification of appropriate individuals when the shift engineer has determined by IP-1 that an incident has occurred which is classified as a General Emergency.

1.2 To provide a method for periodic reanalysis of the current situation by the Site Emergency Director to determine whether the General Emergency action should be canceled, continued, upgraded, or downgraded to another classification.

2.0 INSTRUCTIONS

2.1 Upon determining that existing conditions are classified as a General Emergency according to IP-1, the shift engineer will:

(Initials)

_____ 1. Activate emergency sirens for personnel assembly and initiate IP-8 and IP-9.

_____ 2. If conditions warrant, initiate IP-14 (Heath Physics Procedures), IP-20, (environmental monitoring during radiological emergency).

_____ 3. Notify the Operations Duty Specialist direct by dimension telephone number 7-200 or alternate Chattanooga number 8-0200 and state the following:

a. Your name

b. Sequoyah Nuclear Plant

c. General Emergency

d. Time of incident

e. Brief description of incident

f. Plant condition (whether stable or deteriorating)

g. Unusual release of radioactivity (Yes or No)

h. Direction wind is coming from _____ and speed _____

i. Recommended initial protective actions for the public:

(Activate the warning system and advise the public to take shelter, tune radio or TV to a local station, and await further instructions).

(Initials)

_____ 3. Notify the health physics laboratory.

_____ 4. Notify Plant Duty Supervisor and provide the same information given to Operations Duty Specialist (see duty list for telephone number).

_____ 5. During off shifts the Shift Engineer Clerk will contact one individual in each section of the call list in IP-6.

2.2 The Site Emergency Director shall:

1. If there is an indication that any personnel are injured, initiate IP-10 (Medical).

_____ 2. Initiate IP-11.

_____ 3. Initiate IP-7 (Activation of the Operations Support Center).

_____ 4. Notify the NRC by ring-down phone of plan activiation in accordance with AI-18, File Package 18.

_____ 5. At least every two hours or more frequently if conditions warrant, reevaluate the event using IP-1.

If the situation no longer exists or should be downgraded, cancel or downgrade the General Emergency by infroming the Operations Duty Specialist and the Plant Duty Supervisor.

_____ 6. If a significant radiation release has occured in containment, as indicated by containment monitor(s), evaluate the need to implement TI-30 to determine the amount of Radioactivity being released through normal plant release points.

REVISION LOG SHEET

Revision Date: POR: January 11, 1983 (issued 2/3/83)

This log sheet must be retained as the last page of the Sequoyah Implementing Procedures Document.

Inserted by: _____ Date Inserted: _____

Pages to be Removed			New Pages to be Inserted		
Part	Page Number	Revision	Part	Page Number	Revision
Table of Contents	1 of 1	01/06/83	Table of Contents	1 of 1	01/11/83
IP-18	Cover Page	Rev. 3	IP-18	Cover Page	Rev. 4
(Remove pages 1 through 53)					

IMPLEMENTING PROCEDURES INDEX

Revised 01/11/83

Sequoyah Nuclear Plant
Cover Page 1

SQN REP - IMPLEMENTING PROCEDURES DOCUMENT

SQN, IP-18

PLANT RELEASE RATE CALCULATIONS

Prepared By: Walter Zabel

Revised By: R. J. Kitts

Submitted By: R J Kitts
Supervisor SECP

PORC Review: 1-11-83
Date

Approved By: [signature]
Pwr Plt Superintendent

Date Approved: 1-11-83

DISTRIBUTION

1C 81 Plant Master File
1C 83 Asst Pwr Plant Supt., (Oper.)
1C 84 Asst Pwr Plant Supt., (Maint.)

1C 86 Maintenance Supervisor (M)
1C 87 Maintenance Supervisor (E)
1C 88 Maintenance Supervisor (I)
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1C 90 Operations Supervisor
1C 92 Health Physics Supervisor
1C 93 Public Safety Services Supv.
1C 95 Outage Director
1C 96 Emergency Cabinet Control Room
1C 97 Emergency Cabinet Communications Room
1C 98 Emergency Cabinet Gatehouse

1C 102 Shift Engineer's Office
1C 103 Unit Control Room

1C 105 Health Physics Laboratory
1C 106 Medical Office
1C 107 Resident NRC Inspector - SNP
1C 108 Technical Support Center
1C 109 Assistant HP Supervisor
1C 110 Plant Duty Supervisor
1C 111 Asst. Plant Supt. (H&S)
1C ~~OC~~ EP&P - Eric Sliger, 1470 CST2-C

The current revision level of this instruction is: 4.

Reason for current revision (include all temporary change numbers) Canceled entire instruction because Knoxville Emergency Center (KEC) has the responsibility to perform calculations required in SQN-IP-18.

The last page of this instruction is number _____.

Sequoyah Nuclear Plant
Cover Sheet Page 2
History of Revisions

SQN REP - IMPLEMENTING PROCEDURES DOCUMENT
SQN, IP-18

Rev. Level	Date	Revised Pages	Rev. Level	Date	Revised Pages
0	08/21/80	ALL			
1	10/22/80	1,Added 1A,49-51			
2	06/29/81	1-3,7,9,10,12-14, Added 1A			
3	12/21/81	Revised 1 & 6, Added 6A,14A,52,53			
4	1-11-83	Cancel Entire Inst.			

REVISION LOG SHEET

Revision Date: PORC January 6, 1983 (issued 2/2/83)

This log sheet must be retained as the last page of the Sequoyah Implementing Procedures Document.

Inserted by: _____ Date Inserted: _____

Pages to be Removed			New Pages to be Inserted		
Part	Page Number	Revision	Part	Page Number	Revision
Table of Contents	1 of 1	12/21/82	Table of Contents	1 of 1	01/06/83
IP-17	Cover Page	Rev. 5	IP-17	Cover Page	Rev. 6
	1 of 3	Rev. 1		1 of 3	Rev. 6
	2 of 3	Rev. 1		2 of 3	Rev. 6
	3 of 3	Rev. 1		3 of 3	Rev. 6
Att. 3	1 of 2	Rev. 5	Att. 3	1 of 2	Rev. 5
	2 of 2	Rev. 5		2 of 2	Rev. 6
Att. 4	1 of 1	Rev. 4	Att. 4	1 of 1	Rev. 6
Att. 5	1 of 2	Rev. 5	Att. 5	1 of 2	Rev. 6
	2 of 2	Rev. 2		2 of 2	Rev. 2
Att. 6	1 of 1	Rev. 5	Att. 6	1 of 1	Rev. 6
Att. 9	1 of 2	Rev. 5	Att. 9	1 of 2	Rev. 6
	2 of 2	Rev. 2		2 of 2	Rev. 6

IMPLEMENTING PROCEDURES INDEX

Revised 01/06/83

Sequoyah Nuclear Plant

SQN REP - IMPLEMENTING PROCEDURES DOCUMENT

SQN, IP-17

EMERGENCY EQUIPMENT AND SUPPLIES

Prepared By: R. J. Prince

Revised By: Jerry D. Osborne

Submitted By: R. J. Kitts
Supervisor

PORC Review: 1-6-83
Date

Approved By: J. R. Cross
Plt Superintendent

Date Approved: 1-6-83

DISTRIBUTION

1C	81	Plant Master File
1C	83	Asst. Power Plant Supt. (Oper.)
1C	84	Asst. Power Plant Supt. (Maint.)
1C	86	Maintenance Supervisor (M)
1C	87	Maintenance Supervisor (E)
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1C	93	Public Safety Services Supv.
1C	95	Outage Director
1C	96	Emergency Cabinet Control Room
1C	97	Emergency Cabinet Communications Room
1C	98	Emergency Van
~~1C~~	~~100~~	~~Emergency Cabinet Meteorological Bld.~~
1C	102	Shift Engineer's Office
1C	103	Unit Control Room
1C	105	Health Physics Laboratory
1C	106	Medical Office
1C	107	Resident NRC Inspector - SNP
1C	108	Technical Support Center
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1C	110	Plant Duty Supervisor
1C	111	Asst. Power Plant Supt. (H&S)
1C	~~OC H&S~~ EP+I	- Eric Sliger, 1470 CST2-C

Rev. No.	Date	Revised Pages	Rev. No.	Date	Revised Pages
0	8/5/80	ALL	4	10/28/81	10
1	9/17/80	1-9,11,17,20, Add 11A,17A,21	5	3/22/82	Revise 4,5,6,8,9, 11,13,16,17,19,20
2	2/11/81	Delete 11A,17A, Revise 12,18	6	1-6-83	Revise 1,2,3,4,10,11, 13,17,&18, Delete 21
3	7/30/81	Revise 21			

The last page of this instruction is Number 20

EMERGENCY EQUIPMENT AND SUPPLIES

1.0 SCOPE

This instruction is used to comply with the requirements of the Radiological Emergency Plan for periodic inspection and maintenance of equipment and supplies.

The emergency equipment, listed in attachments 1, 2, 3, and 5, is stored in cabinets provided with a plastic seal. These seals provide a means of determining that the cabinet has not been opened. An inventory list of the equipment is posted on the outside and inside of the cabinet. The four cabinets are located in: (1) Main Control Room Corridor, (2) Communications Room, (3) Gatehouse, and (4) Meteorological Tower Building.

Equipment and supplies listed in attachment 11 are stored in the technical support center and are available for use during an emergency.

The Stokes splint stretchers are located adjacent to the cabinets.

The emergency equipment, listed in attachment 9, is located in the health physics emergency van. In the event of a radiological emergency that requires the emergency van to be used, a health physics technician will obtain the additional equipment listed in Attachment 1 of IP-20. This equipment will be placed in the emergency kit provided and transported to the van.

The emergency room supplies furnished by TVA for use at the Erlanger Medical Center in case of injury to personnel involving radioactive materials are listed in attachment 10.

The radiation monitoring instruments, which are in normal plant use, are located in the health physics laboratory as listed in attachment 4. The self-contained respiratory devices are located as follows: Gatehouse, Health Physics Laboratory, and Turbine Building, Elevation 685, near freight lift, (Attachment 6).

Eight (8) additional self contained breathing units (with an additional one-hour's reserve air capacity for each unit) are permanently stored in the control room area for employees who must continuously man the control room. These self-contained breathing units shall be labeled "For Control Room Use Only".

2.0 RESPONSIBILITIES

2.1 The plant nurse shall be responsible for inventory and inspection of emergency medical supplies located in the medical treatment area, as listed in attachment 7. The completed inventory sheet will be returned to the health physics supervisor.

2.2 The individuals performing the inspection shall complete the data sheets and the health physics supervisor shall review the results and make arrangements to correct deficiencies, and file the data sheets in the health physics files.

3.0 FREQUENCY

3.1 Each cabinet and storage location, including the medical treatment area, shall be inventoried and required equipment inspected and checked for operation and/or condition. The equipment listed in attachments 1, 2, 3, 5, 9 and 11 have been separated into two categories. Table A is a listing of all non-perisable items stored in a small metal box within the cabinet itself. This metal box is equipped with a security seal. These items will be inventoried annually. Additionally these items will be inventoried whenever a security seal has been found to be violated. Those items listed in Table B of these attachments are inventoried on a quarterly basis. This inventory is performed within the last two weeks of each calendar quarter.

3.2 The portable radiation monitoring instruments shall be inventoried and calibrated on a routine basis per RCI-5, "Calibration of Health Physics Instruments".

* 3.3 All self-contained breathing units in service shall be inventoried and inspected monthly by the health physics section. This inspection is performed per RCI-4, "Respiratory Protection Program".

4.0 PROCEDURES

4.1 Each cabinet shall be inventoried against the list of required items.

4.1.1 List any items missing and the disposition on the data sheet.
4.1.2 Deficient items shall be replaced.

4.2 Special checks of certain material in the cabinets shall be performed. The following checks shall be made where applicable:

4.2.1 The copies of the TVA-REP and EP Implementing Procedures Document shall be checked to determine that all revisions have been inserted properly.

4.2.2 The self-contained breathing units shall be checked per RCI-4, "Respiratory Protection Program".

4.2.3 The protective clothing shall be checked for deterioration.

4.2.4 The smoke tubes and aspirator bulbs shall be checked for deterioration and that the tubes have not been broken or used.

4.2.5 Replace all batteries with fresh batteries drawn from Power Stores. (Do not discard batteries. Return them to the tool room).

4.2.6 Check to determine that flashlights are operable.

4.2.7 Check first-aid kits to confirm they are stocked to current TVA specifications.

4.2.8 Rezero all emergency dosimeters to assure proper operation.

4.3 Completion of Inventory Forms

4.3.1 If the particular items are present and in sufficient quantities and, when applicable, in good working condition, then check the yes column.

4.3.2 If a deficiency is noted, then check the no column.

4.3.3 Under the remarks column explain the corrective actions taken.

NOTE: All comments in the remarks column should be detailed enough to leave no doubt as to the actions taken. Comments to the effect - "batteries missing" will not suffice. A simple check in the no column will represent that a deficiency exists. Such comments do not allow a person to determine what, if any, action has been taken and will only lead to confusion. Comments should read for example: Batteries replaced on March 25, 1980.

All deficiencies must be corrected as soon as possible. If circumstances do not allow deficiencies to be corrected then the shift supervisor shall be notified.

ATTACHMENT 3
EMERGENCY EQUIPMENT

Location: Gatehouse Cabinet

The following equipment is stored in the Gatehouse.

TABLE A

	Quantity	Description	Yes	No.	Remarks
	12	Pencils			
	10	Gloves (rubber)	—	—	
	10	Gloves (canvas)	—	—	
	10	Rubber overshoes	—	—	
	1	Box air filters	—	—	
	2	Extension cords - 100 volts, 3-prong	—	—	
	1	Roll radiation zone tape	—	—	
	3	Urine kits	—	—	
	20	Radiation and contamination zone tags	—	—	
	2	Rolls masking tape	—	—	
*	2	Doz. plastic bags	—	—	
	1 Pkg	Paper towels	—	—	
	1 Pkg ea.	Emergency forms, TVA 17095, 17096, 17093, 17126, 17106, 17130	—	—	
	3	Grease pencils	—	—	
	2	Pair scissors	—	—	
	2	Pocket knives	—	—	
	2	Boxes smoke tubes	—	—	
	2	Aspirator bulbs	—	—	
	1	Log book	—	—	
*	3	Boxes of smears	—	—	
*		with holders	—	—	
	1 ea.	Screwdriver, slotted and Phillips			
	1 ea.	Pliers, regular and long nose	—	—	
	10 ea.	Fifteen minute-red highway flares	—	—	
	1 ea.	10" adjustable wrench	—	—	
	1 ea.	18" adjustable wrench	—	—	
	1 ea.	Wire cutters (side cutter pliers)	—	—	
	1 ea.	Hammer (carpenters)	—	—	
	1 ea.	Hatchet	—	—	
			—	—	

ATTACHMENT 3

EMERGENCY EQUIPMENT

TABLE A

Quantity	Description	Yes	No	Remarks
1 ea.	12" pipe wrench	___	___	_____
1	Assorted nails	___	___	_____
1	Black iron wire - roll	___	___	_____
2	Electrical tape - roll	___	___	_____
1	Hacksaw	___	___	_____
1	Map of area surrounding the plant	___	___	_____

Security seal intact (Yes or No): _____

TABLE B

Quantity	Description	Yes	No	Remarks
1	Copies of TVA-REP and REP Implenting Procedures Document	___	___	_____
1	First-aid kit	___	___	_____
3	MSA 401 self-contained breathing apparatus	___	___	_____
3	air bottles	___	___	_____
20	Coveralls	___	___	_____
10	Hoods	___	___	_____
5	Emergency dosimeters and charger, with spare batteries	___	___	_____
1	High volume air sampler	___	___	_____
2	Flashlights w/batteries	___	___	_____
3	Fullface respirators with cartridges	___	___	_____
1	Roll radiation rope	___	___	_____
1 ea.	Shovel	___	___	_____
1 ea.	8# sledge hammer	___	___	_____
1	Rope - 100' long	___	___	_____
2	One-gallon polyethylene bottles for drinking water	___	___	_____
1	Stretcher, stokes splint	___	___	_____
1	Plant personnel roster	___	___	_____

All equipment has been inventoried with deficiencies noted.

Inspection Performed By:

Health Physics Represenative _____ Date _____

Review and Approval:

Health Physics Supervisor _____ Date _____

ATTACHMENT 4

EMERGENCY EQUIPMENT

Date _____

Location: Health Physics Laboratory - Service Building

Quantity	Description	Yes	No	Remarks
1	Alpha Survey Meter (500,000 cpm)	___	___	_____
1	Neutron dose rate survey meter (.025 eV - 10 MeV) (5,000 mR/hr)	___	___	_____
* 1	Teletector (1,000 R/hr with 13-foot extendible probe)	___	___	_____
4	Cutie Pie (10 R/hr)	___	___	_____
1	Cutie Pie, high range (100 R/hr)	___	___	_____
1	Cutie Pie (2.5 R/hr)	___	___	_____
1	High Volume Air Sampler	___	___	_____
4	RM-14 Survey Meters (0-50,000 cpm)	___	___	_____
1	Low-volume air sampler	___	___	_____

Inspection Performed By:

Health Physics Representative _____ Date _____

Review and Approval:

Health Physics Supervisor _____ Date _____

ATTACHMENT 5
EMERGENCY EQUIPMENT

Location: Meteorological Building

The following equipment is stored in the meteorological building adjacent to the tower.

TABLE A

Quantity	Description	Yes	No	Remarks
3	Clipboards with paper	___	___	_____
12	Pencils	___	___	_____
2	Boxes of Smears with holders	___	___	_____
1	Scissors	___	___	_____
25	Soil sample bags	___	___	_____
50	Paper bags	___	___	_____
50	Plastic bags	___	___	_____
1	Roll masking tape	___	___	_____
1	Roll of radiation and contamiation tape	___	___	_____
20	Radiation and contamination tags	___	___	_____
3	Pairs gauntlet gloves	___	___	_____
5	Pairs short rubber gloves	___	___	_____
5	Canvas gloves	___	___	_____
5	Rubber overshoes	___	___	_____
1	Map of area surrounding the plant	___	___	_____

TABLE B

Quantity	Description	Yes	No	Remarks
*** 2	Flashlights with batteries	___	___	_____
3	Pairs hip boots	___	___	_____
20	Sample bottles	___	___	_____
* 1	First aid kit	___	___	_____
3	Full face masks	___	___	_____
6	Canisters	___	___	_____
5	Coveralls	___	___	_____
5	Hoods	___	___	_____
1	Roll radiation rope	___	___	_____
1	Plant personnel roster	___	___	_____
1	Dosimeter charger with batteries	___	___	_____
10	High range dosimeters (0-500 mrem)	___	___	_____

ATTACHMENT 5
EMERGENCY EQUIPMENT

NOTE: 1. Functionally test generator
2. Replace dosimeter chgr batteries
3. Recharge dosimeters

All equipment has been inventoried and deficiencies noted.

Inspection Performed By:

Health Physics Representative _____ Date _____

Review and Approval:

Health Physics Supervisor _____ Date _____

* Comp Pg.

Attachment 6

ADDITIONAL EQUIPMENT AVAILABLE FOR EMERGENCY USE

Equipment in addition to that included in Attachments 1 through 5 and 8 is not specifically designated as emergency equipment, but is available for use in case of an emergency.

The following tabulation lists the equipment, the location, and quantity:

Quantity	Description	Location
1	MSA-401 Self conntained breathing apparatus	Health Physics Lab, Service Building
* 20	MSA-401 Self contained breathing apparatus	Turbine Building, El. 685, near Freight Lift.

Inspection Performed By:

Health Physics Representative _____ Date _____

Review and Approval:

Health Physics Supervisor _____ Date _____

ATTACHMENT 9

EMERGENCY EQUIPMENT

Location: Health Physics Emergency Vehicle - Van

The following equipment is stored in the health physics emergency van:

TABLE A

Quantity	Description	Yes	No	Remarks
20	Radiation tags	___	___	_____
20	Contamination tags	___	___	_____
1 box	4" dia. air filters	___	___	_____
1 box	2" dia. air filters	___	___	_____
* 15	Charcoal cartridges (A,Z)	___	___	_____
40	Radiological survey forms	___	___	_____
14	Airborne radiation survey forms	___	___	_____
7	Pencils	___	___	_____
3	Grease pencils	___	___	_____
2	Log Books	___	___	_____
2	Masking tape - roll	___	___	_____
1	Sample cutter	___	___	_____
20	Plastic bags	___	___	_____
1	Mini-Scaler cable	___	___	_____
2 pr.	Rubber overshoes	___	___	_____
2 pr.	Coveralls	___	___	_____
* 6 pr.	Canvas gloves	___	___	_____
1 box	Rubber gloves	___	___	_____
1 pr.	Scissors	___	___	_____
6 ft	Syphon hose	___	___	_____
50	4" x 4" air filters for monitors	___	___	_____
30	Charcoal filters for environmentalmonitors	___	___	_____
1	Map of area surrounding plant	___	___	_____
1	Plant boundary map	___	___	_____
1 box	Saran wrap	___	___	_____
* 1	HP 260 probe and cable	___	___	_____

Security seal intact (Yes or No): _____

TABLE B

Quantity	Description	Yes	No	Remarks
* 2	Radiation tape - rolls	___	___	_____
* 500 each	Smears and holders	___	___	_____
2	Flashlights w/batteries	___	___	_____
30	Paper bags	___	___	_____
* 15 each	Sample bottles & boxes	___	___	_____
100 ft.	Extension cord	___	___	_____
1	Trouble light	___	___	_____
* 2	Self-contained breathing apparatus	___	___	_____

ATTACHMENT 9
EMERGENCY EQUIPMENT

TABLE B

Quantity	Description	Yes	No	Remarks
* 20	Plastic Planchets	___	___	_____
2	Full face masks with canisters	___	___	_____
1	Portable gasoline powered generato.	___	___	_____
	Functional test generator	___	___	_____
* 4	Respirator canisters (part. charcoal)	___	___	_____
*				

Inspection Performed By:

Health Physics Representative _____ Date _____

Review and Approval:

Health Physics Supervisor _____ Date _____