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~~TO: FLAIM*LAUREL~~ B 08/23/2002
LOCATION: DOCUMENT CONTROL DESK
FROM: NUCLEAR RECORDS DOCUMENT CONTROL CENTER (NUCSA-2)
THE FOLLOWING CHANGES HAVE OCCURRED TO THE HARDCOPY OR ELECTRONIC MANUAL ASSIGNED TO YOU:

307 - 307 - ENGINEERING SUPPORT MANAGER: EMERGENCY PLAN-POSITION SPECIFIC PROCEDURE

REMOVE MANUAL TABLE OF CONTENTS DATE: 08/09/2002

ADD MANUAL TABLE OF CONTENTS DATE: 08/22/2002

CATEGORY: PROCEDURES TYPE: EP
ID: EP-PS-307
REPLACE: REV:7

REPLACE: REV:7

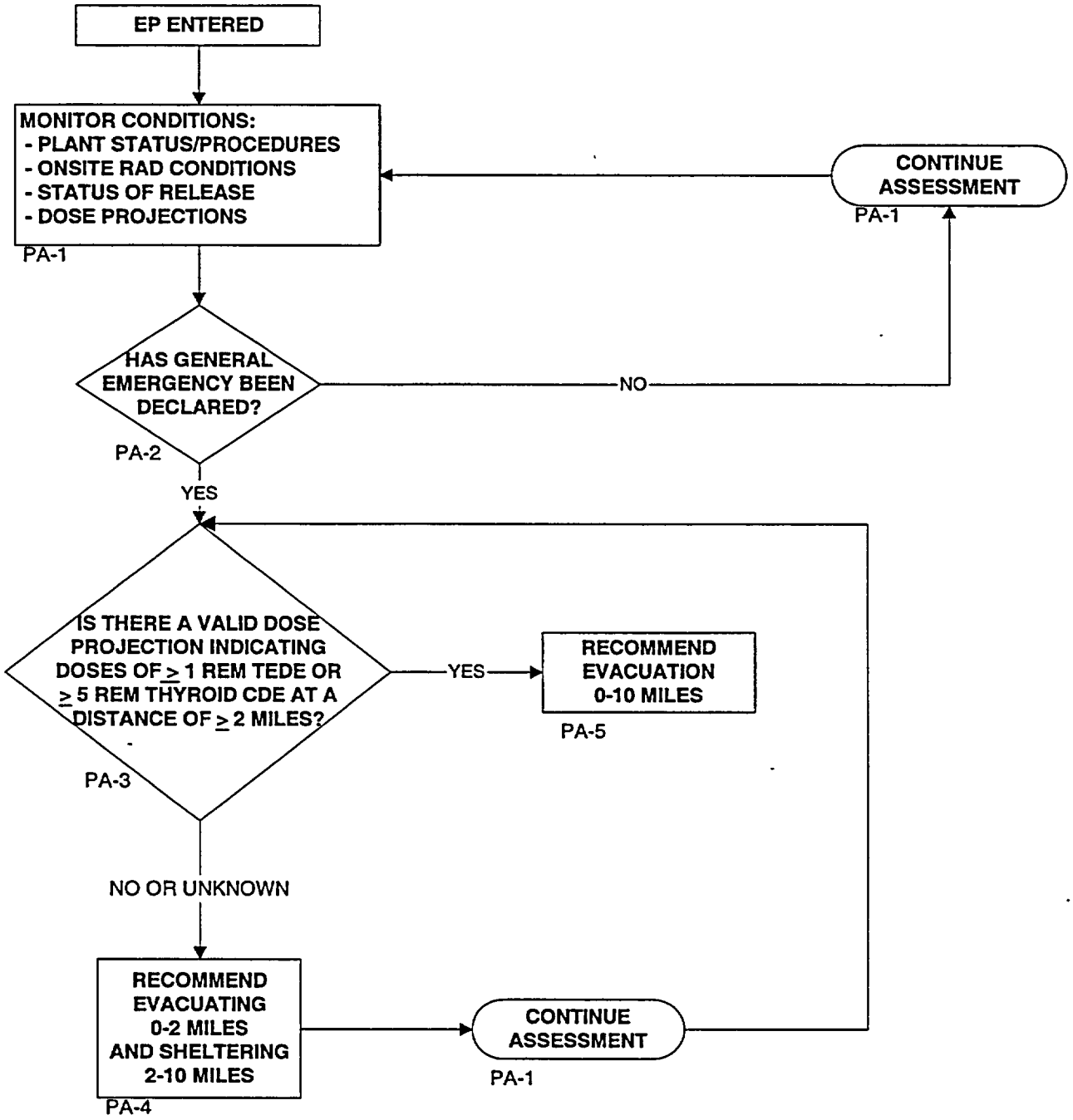
REMOVE: PCAF 2002-1443 REV: N/A

ADD: PCAF 2002-1443 REV: N/A

UPDATES FOR HARD COPY MANUALS WILL BE DISTRIBUTED WITHIN 5 DAYS IN ACCORDANCE WITH DEPARTMENT PROCEDURES. PLEASE MAKE ALL CHANGES AND ACKNOWLEDGE COMPLETE IN YOUR NIMS INBOX UPON RECEIPT OF HARD COPY. FOR ELECTRONIC MANUAL USERS, ELECTRONICALLY REVIEW THE APPROPRIATE DOCUMENTS AND ACKNOWLEDGE COMPLETE IN YOUR NIMS INBOX.

AX45

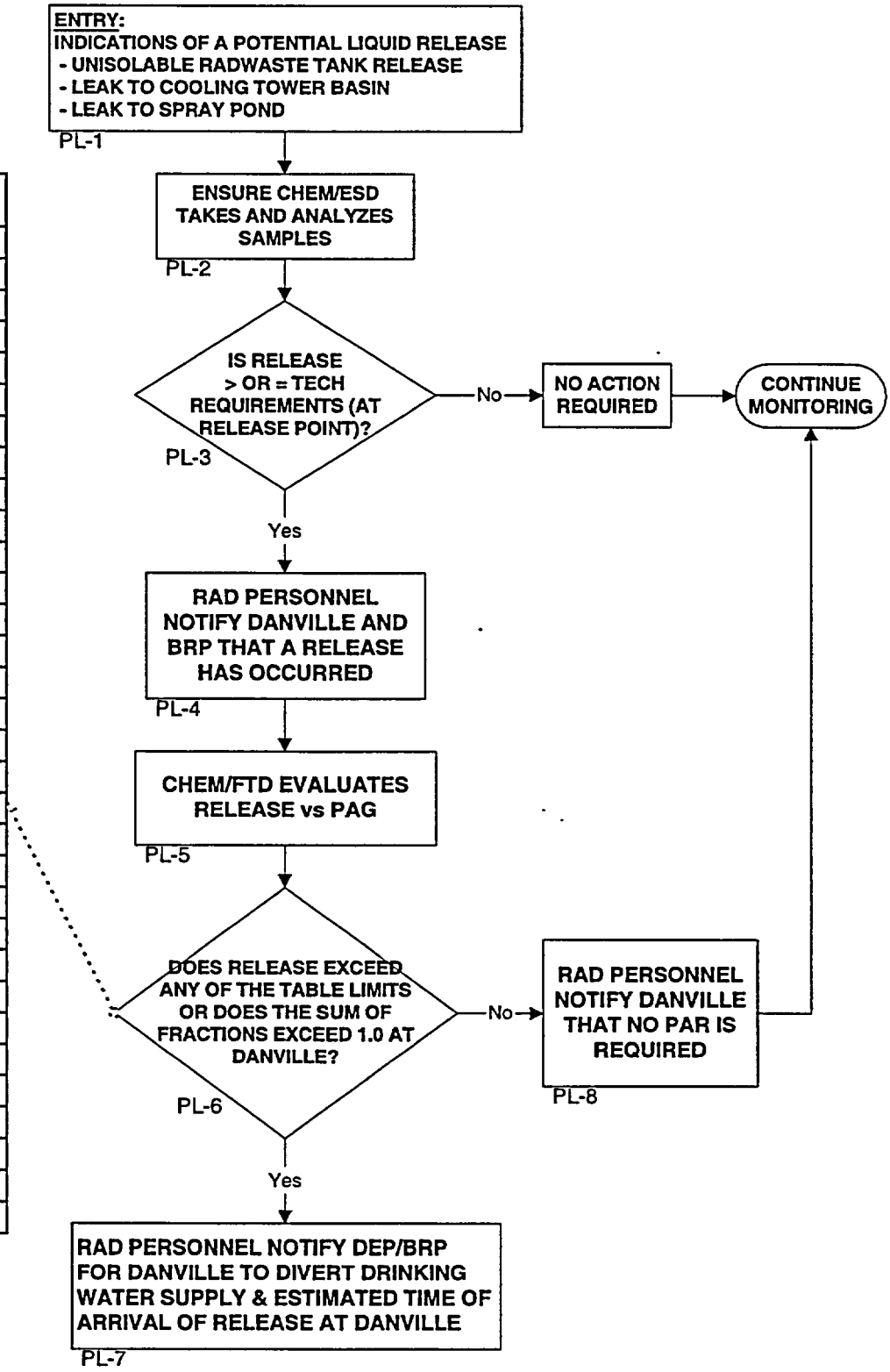
PAR AIRBORNE RELEASES



NOTES.
1. PA-# CAN BE USED TO REFER TO SECTION 4 1 OF THE PROCEDURE FOR MORE DETAILED INFORMATION ON THE ACTION TO BE TAKEN.
2. DOSE PROJECTIONS DO NOT INCLUDE DOSE ALREADY RECEIVED.
3. TEDE - WHOLE BODY (TEDE) IS THE SUM OF EFFECTIVE DOSE EQUIVALENT RESULTING FROM EXPOSURE TO EXTERNAL SOURCES. THE COMMITTED EFFECTIVE DOSE EQUIVALENT (CEDE) FROM ALL SIGNIFICANT INHALATION PATHWAYS AND THE DOSE DUE TO GROUND DEPOSITION.
4. CDE - COMMITTED DOSE EQUIVALENT TO THE CHILD THYROID.

PAR LIQUID RELEASES

RADIONUCLIDE	Isotopic Limit (uCi/ml)
Ag-110m	$1.1E^{-6}$
As-76	$7.2E^{-7}$
Ba-140	$1.1E^{-6}$
Ce-141	$3.6E^{-6}$
Co-58	$1.1E^{-4}$
Co-60	$1.2E^{-6}$
Cr-51	$7.2E^{-5}$
Cs-134	$2.4E^{-4}$
Cs-137	$2.4E^{-6}$
Fe-55	$2.4E^{-5}$
Fe-59	$2.4E^{-6}$
H-3	$2.4E^{-4}$
I-129	$1.2E^{-8}$
I-131	$3.6E^{-8}$
La-140	$7.2E^{-7}$
Mn-54	$3.6E^{-6}$
Mo-99	$7.2E^{-6}$
Na-22	$4.8E^{-6}$
Nb-95	$3.6E^{-6}$
Ni-59	$3.6E^{-6}$
Ni-63	$6.0E^{-7}$
P-32	$3.6E^{-7}$
Ru-103	$2.4E^{-6}$
Ru-106	$3.6E^{-7}$
Sb-124	$7.2E^{-7}$
Sb-125	$3.6E^{-6}$
Sr-89	$2.4E^{-7}$
Sr-90	$9.6E^{-8}$
Tc-99m	$1.1E^{-5}$
Y-90	$7.2E^{-7}$
Zn-65	$3.6E^{-6}$
Zr-95	$2.4E^{-6}$



NOTES:

1. PL-# CAN BE USED TO REFER TO SECTION 4.2 OF THE PROCEDURE FOR MORE DETAILED INFORMATION ON THE ACTION TO BE TAKEN.
2. CALLS TO DANVILLE ARE COURTESY INFORMATION CALLS ONLY. PROTECTIVE ACTION RECOMMENDATION CALLS MUST BE MADE BY DEP/BRP.

PUBLIC PROTECTIVE ACTION RECOMMENDATION GUIDE

AIRBORNE RELEASES

☐ PA-1 MONITOR CONDITIONS FOR PAR APPLICATION

The following conditions should be continuously evaluated to determine if a PAR should be implemented or changed:

- Plant status and prognosis for changes in conditions
- Onsite radiological conditions
- Status of actual or potential radioactive releases
- Offsite dose projections or actual offsite radiological conditions
- Escalation in Emergency Classification (i.e., General)

(Go to PA-2)

PA-2 HAS A GENERAL EMERGENCY BEEN DECLARED?

☐ **YES** - If a GENERAL EMERGENCY has been declared, a PAR must be made within 15 minutes of the emergency declaration. The PAR requirement is found in NUREG-0654. **(Go to PA-3)**

☐ **NO** - If a GENERAL EMERGENCY has not been declared, continue to monitor plant status, parameter trends, and prognosis for termination or escalation of the event. **(Go to PA-1)**

PA-3 IS THERE A VALID DOSE PROJECTION INDICATING DOSES OF ≥ 1 REM TEDE OR ≥ 5 REM CDE CHILD THYROID AT A DISTANCE OF > 2 MILES?

☐ **YES** – If the projected doses at 2 miles are ≥ 1 REM TEDE or ≥ 5 REM CDE child thyroid, then full evacuation (0-10 miles) is recommended.

(Go to PA-5)

☐ **NO/UNKNOWN – (Go to PA-4)**

☐ PA-4 RECOMMEND EVACUATION 0-2 MILES; SHELTER 2-10 MILES

Limited Evacuation (0-2 miles) and sheltering is appropriate for events that are significant enough to cause a General Emergency classification and dose projections are low, unknown, or below full evacuation guidelines.

☐ PA-5 EVACUATE 0-10 MILES

Full evacuation of members of the general public is recommended at this point based on the emergency classification and dose projections.

LIQUID

☐ PL-1 ENTRY

This section is entered when there are indications of a potential radioactive liquid release.

Indications of potential releases include:

- an unisolable radwaste tank release.
- leaks to cooling tower basin
- leak to spray pond

(Go to PL-2)

☐ PL-2 CHEMISTRY/ENVIRONMENTAL SAMPLING DIRECTOR (ESD) TAKES AND ANALYZES SAMPLE

(Go to PL-3)

PL-3 IS RELEASE ≥ TECHNICAL REQUIREMENTS LIMITS (AT THE RELEASE POINT)?

☐ **YES** - Releases are at or greater than Technical Requirements limits when Chemistry determines that the limits are exceeded based on methodologies described in the ODCM and applicable Chemistry procedures.

☐ **NO** - If the release is < Technical Requirements limits, then no notifications are required and monitoring should continue.

(Go to PL-4)

☐ PL-4 RAD PERSONNEL NOTIFY DANVILLE AND BRP THAT A RELEASE HAS OCCURRED

Depending on which facility is activated, the notification to Danville and BRP will be made by the RPC (TSC) or the Radiological Liaison (EOF).

DO NOT MAKE ANY PROTECTIVE ACTIONS RECOMMENDATIONS AT THIS TIME.

☐ PL-5 CHEM/FTD EVALUATES RELEASE VERSUS PAGs

The results of the sample analysis are compared to the PAGs for radionuclides in drinking water. The analysis calculates the expected concentration at Danville, taking into account the dilution afforded by the river.

PL-6 DOES RELEASE EXCEED PAGs (AT DANVILLE)?

☐ **YES** - If a single isotope exceeds the PAG or the sum of the fractions exceeds 1.0, then a protective action recommendation should be made for Danville to **DIVERT** its **DRINKING WATER** supply to a backup supply until the release has passed.

(Go to PL-7)

☐ **NO** - If the PAGs are not exceeded, monitoring should continue and the State should be notified that no PAR for the liquid release is required. **(Go to PL-8)**

☐ PL-7 RAD PERSONNEL NOTIFY DEP/BRP OF PAR

Depending on which facility is activated, the PAR notification to DEP/BRP will be made by the RPC (TSC) or the Radiological Liaison (EOF). **The PAR FORM shall be used to document the PAR.**

DO NOT COMMUNICATE THE PROTECTIVE ACTION RECOMMENDATION TO DANVILLE. THE DEP/BRP IS RESPONSIBLE FOR THIS COMMUNICATION.

☐ PL-8 RAD PERSONNEL NOTIFY DEP/BRP

No PAR is required. Depending on which facility is activated, the RPC (TSC) or the Radiological Liaison (EOF) shall notify DEP/BRP that no PAR is required.