100 - STATION GROUP DIRECTOR'S DUTIES

100-1	Supervision of Emergencies, Drills and Exercises (Primary Responsibility - Station Director)	Rev. 2	4/82
100-2	Shift Turnover With Technical Support Center (TSC) and/or Environs Teams Activated (Primary Responsibility - Administrative Director)	Rev. 0	11/82
100-C1	Station Director - Checklist of Initial GSEP Responsibilities	Rev. 2	3/82
100-C2	Operations Director - Checklist of Initial GSEP Responsibilities	Rev. 1	1/81
100-C3	Technical Director - Checklist of Initial GSEP Responsibilities	Rev. 2	2/82
100-C4	Maintenance Director - Checklist of Initial GSEP Responsibilities	Rev. 1	3/81
100-C5	Stores Director - Checklist of Initial GSEP Responsibilities	Rev. 1	7/81
100-C6	Administrative Director - Checklist of Initial GSEP Responsibilities	Rev. 2	10/81
100-C7	Security Director - Checklist of Initial GSEP Responsibilities	Rev. 2	7/82
100-C8	Rad/Chem Director - Checklist of Initial GSEP Responsibilities	Rev. 2	6/82
100-C9	Emergency Reports Checklist (Primary Responsibility - Operations Director)	Rev. 1	3/81
100-C10	Record of GSEP Activities	Rev. 0	1/81
100-C11	Environs Director - Checklist of Initial GSEP Responsibilities	Rev. 0	7/81
100-C12	Operational Support Center Supervisor/ Operating Foreman (Checklist of Initial GSEP Responsibilities)	Rev. 0	6/82
100-C13	Operational Support Center Supervisor/Rad./ Chem. Foreman (Checklist of Initial GSEP Responsibilities)	Rev. 0	6/82

SHIFT TURNOVER WITH TECHNICAL SUPPORT CENTER (TSC) AND/OR ENVIRONS TEAMS ACTIVATED (PRIMARY RESPONSIBILITY - ADMINISTRATIVE DIRECTOR)

A. SCOPE

This procedure describes a method of shift relief that can be instituted to ensure proper continuity of information and direction through shift change. This procedure may be altered as necessary by the Station Director to ensure a workable shift relief and to ensure its intent is met. The times indicated are suggested times. The sequence of relief and the span of relief is significant to the intent of this procedure. The sequence will provide the greatest continuity of information. The span will minimize confusion and limit the number of persons in the TSC. The intent to provide overlap with the Operating Shift and with personnel in the Technical Support Center should be preserved by whatever method is implemented. This procedure should be implemented following the first twelve hours of activation or as directed by the Station Director.

NOTE

This procedure assumes that the Station Environs Director has activated the Emergency Operations Facility (EOF) at the alert classification and the Recovery Group is not activated. If the EOF has been activated by the Recovery Manager, then relief of the Environs Director and Environs Teams would be the responsibility of the Recovery Group. Relief for the Environs Director and Environs Teams should be by personnel from other stations if the Recovery Group is activated. Dresden personnel should then be available for in plant use on their next shift.

B. POLICY AND METHODS

The Station Director will direct the Administrative Director to initiate shift relief.

The Administrative Director will establish relief times for the personnel or groups indicated on Table 1. The Administrative Director will assist in calling relief personnel as requested.

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Technical Support Center Directors are responsible for designating relief personnel for positions indicated on Table 1 and for any personnel under their cognizance or area of responsibility not mentioned by title in this procedure.

Personnel called as reliefs should be requested to arrive 30 minutes before their assigned relief time, should be instructed where to report and should be advised of any change from the normal route of access to the plant.

Control Room personnel, bargaining unit personnel and personnel or groups not assigned by title in this procedure will relieve at normal shift relief times. Coordination for relief of in-plant teams, such as maintenance, sampling or health physics teams, at a job site will be the responsibility of the cognizant director.

Groups or personnel indicated on Table 1 will be directed to turnover at the time indicated on Table 1 or at a time consistent with the intent of this procedure. The time of relief should be changed only as directed by the Station Director.

Relief personnel should arrive 30 minutes before their designated relief time to allow sufficient time for a detail turnover of information. Preparation for relief should include the following:

1. A review of any GSEP logs under the individuals cognizance from the last date on shift or for the proceeding four days, whichever is less.

2. A compilation of any work assignments currently in progress or planned for the upcoming shift.

3. A review of plant radiation levels and/or release information to the degree that it affects the individuals area of responsibility.

All turnovers should be formally conducted. The time of relief should be definitive and acknowledged by the Station Director or cognizant supervisor. As directors in the TSC and foreman in the Operational Support Center (OSC) are relieved, the Control Room should be informed.

C. REFERENCES

None.

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TABLE 1

Suggested Shift Turnover Lines (Note 1)

Position or Group	Operating Shift 1	Operating Shift 2	Operating Shift 3
Environs Director (Note 3) Operations Director OSC Rad. Chem. Foreman	0600	1400	2200
Stores Director Control Room to TSC Communicator (Note 2) OCS to Control Room Communicator	0630	1430	2230
Operating Shift OSC Bargaining Unit Personnel	0700	1500	2300
Technical Director Environs Team #1 (Note 3) NARS Communicator (Green Phone) ENS Communicator (Red Phone)	0730	1530	2330
Maintenance Director Security Director Environs Team #2 (Note 3) GSEP Communicator (Yellow Phone)	0800	1600	2400
Rad. Chem. Director Administrative Director OSC Operating Foreman (Note 2) TSC to Control Room Communicator Control Room to OSC Communicator (Note 2)	0830	1630	0030
Station Director	0900	1700	0100

NOTES:

(1) The times may be altered. The sequence of change is significant.

(2) These personnel are in addition to the normal Shift compliment for a long term event.

(3) If the Recovery Group has activated the responsibility for relief of the Environs Director and the Environs Teams will rest with the Recovery Group. Their reliefs should then be drawn from personnel at other stations.

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300 EMERGENCY MEASURES

300-1	Initial Notifications and GSEP Responses (Primary Responsibility - Station Director)	Rev. 3	1/82
300-C1	Nuclear Accident Reporting System Form (Primary Responsibility - Station Director)	Rev. 2	5/81
300-T1	Table of Conditions Requiring Post-Accident Lineup of the High Radiation Sampling System and Use of Post-Accident Sampling Procedures*	Rev. 0	5/82
300-2	On-Going Emergency Communications (Primary Responsibility - Station Director)	Rev. 1	3/81
300-3	Assembly and Evacuation of Personnel (Primary Responsibility - Operations Director)	Rev. 2	4/82
300-4	Emergency Dose Limits and Radiological Controls for Rescue and Recovery Operations (Primary Responsibility - Rad/Chem Director)	Rev. 0	7/80
300-5	Emergency Treatment of Injured Personnel (Primary Responsibility - Operations Direc)	Rev. 2	5/82
300-6	Survey of Injured Personnel (Primary Responsibility - kad/Chem Director)	Rev. 0	7/80
*300-7	Personnel Decontamination (Medical - Decontamination Area) (Primary Responsibility - Rad/Chem Director)	Rev. 0	7/80
300-8	Post-Accident Sampling of Primary Containment Atmosphere (Primary Responsibility - Rad/Chem Director)	Rev. 2	5/82
300-9	Post-Accident Sampling of Reactor Coolant (Primary Responsibility - Rad/Chem Director)	Rev. 3	10/82
300-10	Post-Accident Sampling and Release Rate Determination of Radioiodines and Particulates (Primary Responsibility - Rad/Chem Director)	Rev. 2	11/82
300-11	Post-Accident Noble Gas Release Rate Determination (Primary Responsibility - Rad/Chem Director)	Rev. 1	10/80
300-12	Initiation of Environmental Monitoring Activities by the Rad/Chem Director (Primary Responsibility - Rad/Chem Director)	Rev. 0	7/80
300-13	Rad./Chem. Technicians Action at Hospital (Primary Responsibility - Rad/Chem Director)	Rev. 0	7/80

300 EMERGENCY MEASURES (Cont'd)

300-14	Estimation of Off-Site Dose From an Unplanned Release of Radioactive Effluents (Primary Responsibility - Rad/Chem Director)	Rev. 0	7/80
300-15	Deployment of the Eberline SAM-2 Stabilized Assay Meter (Primary Responsibility - Rad/Chem Director)	Rev. 1	3/81

POST-ACCIDENT SAMPLING AND RELEASE RATE DETERMINATION OF RADIOIODINES AND PARTICULATES
(Primary Responsibility - Rad./Chem. Director)

A. PURPOSE

This procedure provides a backup method for obtaining samples of filter media to allow a release rate determination for radioiodines and particulates from the D-2/3 Chimney following a Regulatory Guide 1.3 or 1.4 Release of Fission Products.

B. REFERENCES

1. Dresden Radiation Control Standards.
2. Generating Station Emergency Procedures.
3. Emergency Plan Implementing Procedures.
4. DCP 1400-8, Isotopic Analyses of Charcoal Cartridges and Particulate Filters.

C. PREREQUISITES

1. New silver zeolite charcoal filters and 94 mm diameter 5.0 micron particulate filters.
2. A "P" Key.
3. Several medium size plastic bags in which to place filters.
4. Set of tongs and remote handling tool for handling the radioactive filters.
5. Stopwatch.
6. High and low range dose instrumentation to monitor pathways taken by personnel to the sampling area and for sample dose monitoring.
7. A portable radio as a backup to the phone which is nearby.
8. A finger ring to be obtained from the Radiation Protection office before going to the sampling area.

D. PRECAUTIONS

1. A Regulatory Guide 1.3 or 1.4 Release of Fission Products implies extremely high levels of radioactivity. Dose rates may be high enough as to prohibit entry to many areas of the plant which are normally habitable. The Radiation Protection Department should be contacted prior to entry into any area when such a release of fission products is suspected.

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2. Wear radiation dosimetry, protective clothing and respiratory protection as recommended by the Radiation Protection Department.

3. Once properly outfitted (dosimetry, clothing and respiratory requirements) and cleared for entry to the plant, continuously MONITOR dose rates while approaching the area of the sample point.

4. Spend a minimum amount of time in the vicinity of the sample point as dose rates are expected to increase in this area. MONITOR dose.

5. Handle sample filters with tongs; dose rates on the initial set of filters removed will be reading several R/hr. Remove these filters and quickly place in separate plastic bags and then in the lead brick cave in the area which was built to contain these filters.

E. LIMITATIONS AND ACTIONS

1. This procedure should not be used unless the High Radiation Sampling System is unavailable.

2. The filters counted for a release determination must be limited in the amount of radioactivity they contain or they may be too "hot" for proper analysis. The radioactivity can be controlled by the duration of sampling. No time duration has been established, but the following guidelines have been developed regarding the amount of activity on a filter. A filter which has a dose rate of $\leq$ 75 mR/hr @ 1" (window open) can be counted at 10 cm from the detector.

NOTE

Particulate filters must meet this requirement since they cannot be counted at 30 cm from the detector.

A filter which has a dose of $\leq$ 200 mR/hr @ 1" (window open) can be counted at 30 cm from the detector. ADJUST sampling times accordingly.

3. Sample flow rate should be adjusted to 2.9 cfm ± 20%.

F. PROCEDURE

1. Because there is no on-line iodine and particulate effluent Radiation Monitors, this procedure proposes to analyze for these effluents under accident conditions using our conventional method of changing out the filters, but with special emphasis on handling and transporting the filters to the Hot Lab and also on sampling duration.

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2. When an accident-type release is suspected, immediately prepare items in Section C for sampling the chimney sample line.

3. Contact Radiation Protection Department for recommendations as to dosimetry, clothing and respiratory requirements to proceed to the chimney rad.-monitor area. MONITOR dose rates proceeding to the area.

NOTE

Consider alternate paths to the chimney rad.-monitor area to help conserve dose.

4. Minimize time at the sample location by pre-planning your sampling technique.

5. At the sampling location, notify the Control Room that the chimney filter samples need changing and request that the sampling system be placed on PURGE.

6. Wait for the sampling system to be placed on PURGE as noted by illumination of the blue Purge Light. RECORD the purge on time as the sample off time on the previously prepared label. Dose rates may drop as sample flow is temporarily interrupted.

7. CLOSE the valve upstream of the millipore filter holder.

8. OPEN the quick disconnect fitting downstream of the charcoal cartridge filter holder.

9. Remove the charcoal cartridge filter holder and the lower half of the millipore filter holder from the sampling system by unscrewing the millipore filter holder. Check dose on millipore filter.

10. Remove the millipore filter paper from the holder using tweezers and place the paper in a plastic bag. Immediately place the plastic bag in the lead cave using the tongs. Do not return to the lab with this filter as it will be too "hot" for counting.

11. Remove the charcoal cartridge from the holder by unscrewing the cartridge holder at the center. Verify that the charcoal cartridge was inserted properly as the cartridge is removed from the holder. Check dose on cartridge. Using tongs, deposit cartridge in labelled plastic bag and place in lead cave. Do not return to the lab with this cartridge as it will be too "hot" for counting.

12. Replace the charcoal cartridge with a silver zeolite cartridge. Label the cartridge D-2/3 TALL STACK and draw two arrows on the new cartridge pointing toward the inlet or hot side of the cartridge.

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13. Place a new 5.0 micron millipore filter paper into the millipore filter holder and assemble the holder.

14. Attach the quick disconnect fitting to the downstream side of the charcoal cartridge filter holder.

15. OPEN the valve upstream of the millipore filter holder.

16. Notify the Control Room that the filters have been changed and request that the purge be removed from the sampling system.

17. Remain in phone contact with the Control Room as the sampling period starts with the system purge removed.

18. When the system purge has stopped, START the stopwatch and make any adjustments to the sample flow rate (2.9 cfm ± 20%) using the appropriate Pump Suction Valve located near the top of the pump. Note sample flow rate.

19. Sample duration should be adjusted to meet the requirements of Step E.1. An approximate 5 minute sampling period may be used as a first attempt. Several attempts may be necessary using Steps F.5. through F.18. It is possible to determine sample duration from the first or second sample pulled using time and sample dose rate. An accurate filter dose rate may have to be determined away from the sampling area in a lower background.

20. When the final sampling run is complete, let the Control Room know when to place the system back on PURGE. This terminates the sampling period.

21. Remove the filters from the holders using tongs or remote handling tool and place in separate plastic bags for transport to the Hot Lab. These filters are low in radioactivity and therefore require no shielding.

22. Reassemble the sampling system without filters. Request the Control Room to remove sampling system purge. ADJUST the sample flow rate for 2.9 cfm ± 20%, if required, using the appropriate Pump Suction Valve (A1 or B1) located near the top right of the pump (facing the pump).

23. Exit the sampling area as soon as possible, taking the path of least dose back to the lab.

24. The particulate filter can be counted immediately provided the criteria of Step E.1 is met. Be sure to cut the filter to 47 mm diameter and place in petri dish for counting.

25. An air purge of the silver zeolite filter should be performed for several minutes in the hot lab hood to eliminate as much of the noble gas as possible before counting. It can then be counted at 10 or 30 cm from the detector depending on analyzer "dead time".

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26. Follow DCP 1400-8 for guidelines in performing isotopic analysis of silver zeolite cartridges and filter papers.

G. CHECKLISTS

None.

H. TECHNICAL SPECIFICATIONS REFERENCES

None.

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200 - EMERGENCY CONDITIONS

200-T1	Classification of GSEP Conditions (Primary Responsibility - Station Director)	Rev. 3	3/82
200-T2	Table of I-131 Equivalents For The Principal Iodine Isotopes In A Reactor Core	Rev. 1	11/82
200-1	Declaration of GSEP Condition For Gaseous And Liquid Effluent Releases (Primary Responsibility - Operations Director	Rev. 0	7/80
200-2	Classification and Responses To An Incident Involving Oil or Hazardous Material (Primary Responsibility - Station Director)	Rev. 1	6/82
200-3	Criticality Accident in a Special Nuclear Material Area (Primary Responsibility - Operations Director)	Rev. 1	5/82
200-4	Fire Fighting (Primary Responsibility - Operations Director)	Rev. 2	5/82
200-5	Security Threat (Primary Responsibility - Operations Director)	Rev. 0	7/80
200-6	Corrective Actions Following An Oil Spill (Refer to EPIP 200-2)	Delete	6/82
200-7	Operation During Tornado or Sustained Wind Conditions (Primary Responsibility - Operations Director)	Rev. 1	1/82
200-8	Operation During Earthquake Conditions (Primary Responsibility - Operations Director)	Rev. 0	7/80
200-9	Dresden Dam Failure (Primary Responsibility - Operations Director)	Rev. 0	7/80
200-10	Probable Maximum Flood of Unit 1 (Primary Responsibility - Operations Director)	Rev. 0	7/80
200-11	Probable Maximum Flood of Unit 2 and 3 (Primary Responsibility - Operations Director)	Rev. 0	8/80
200-12	Area High Radiation (Primary Responsibility - Operations Director)	Rev. 0	7/80
200-13	High Airborne Activity (Primary Responsibility - Operations Director)	Rev. 0	7/80

200 - EMERGENCY CONDITIONS

(cont'd)

200-14	High Radioactive Surface Contamination (Primary Responsibility - Operations Director)	Rev. 0	7/80
200-15	Emergency Procedure for Obstruction Lights (Primary Responsibility - Operations Director)	Rev. 0	9/80
200-16	UNUSED NUMBER		
200-17	UNUSED NUMBER		
200-18	UNUSED NUMBER		
200-19	Unit 1 Control Room Evacuation (Primary Responsibility - Operations Director)	Delete	4/82
200-20	Control Room Evacuation/Safe Shutdown (Primary Responsibility - Operations Director)	Rev. 1	4/82

TABLE OF I-131 EQUIVALENTS FOR THE PRINCIPAL IODINE ISOTOPES IN A REACTOR CORE

Isotope	Concentration (uCi/ml) Equivalent to 300 uCi/ml I-131 (Notes 1 and 2)	I-131 Equivalent Concentration (uCi/ml) for 1 uCi/ml of Iodine Isotope (Note 2)
I-131	3.00×10^{2}	1.00
I-132	8.33×10^{4}	3.6×10^{-2}
I-133	1.11×10^{4}	2.7×10^{-1}
I-134	1.76×10^{4}	1.7×10^{-2}
I-135	3.57×10^{3}	8.4×10^{-2}

1) When a mixture of these isotopes is considered, the 300 uCi/ml I-131 equivalent is determined by considering the sum of the ratios of the actual concentration of each isotope to its I-131 equivalent.

Example: The 300 uCi/ml I-131 equivalent has been met or exceeded when:

$$\frac{\text{Iodine A Concentration}}{\text{I-131 300 uCi/ml Equivalent Concentration}} + \frac{\text{Iodine B Concentration}}{\text{I-131 300 uCi/ml Equivalent Concentration}} + \ldots \geqslant 1$$

2) Values calculated from Inhalation Dose Commitment Factors for an Infant as presented in Table E-10 of USNRC Regulation Guide 1.109.

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