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TERMINATION SURVEY DATA RECEIPT AND MANAGEMENT

1.0 PURPOSE

The purpose of this procedure is to describe and control the process for receiving and managing survey data from storage media and associated data sheets for the Shoreham Nuclear Power Station (SNPS) Termination Survey.

2.0 RESPONSIBILITIES

2.1 Termination Survey Section Head

Responsible for the content and implementation of this procedure.

2.2 Health Physics Technician (Termination Survey Technician)

Responsible for the proper storage of data and turnover to supervision.

2.3 Health Physics Foreman (Survey Supervisor)

Responsible for the control and collection of instruments and media for turnover to the Termination Survey Section.

2.4 Termination Survey Rad Engineers

Responsible for the receipt and downloading of termination survey data to the personal computer (pc) and the creation and/or control of pc disk/files.

3.0 DISCUSSION

3.1 Survey data for the termination survey are collected and stored on various storage media.

3.1.1 Data from smear counting are automatically stored in the computer of the Canberra 2400 Counting System and automatically downloaded to a storage disk at the end of each counting cycle.

3.1.2 Field survey data from survey units are stored in the Eberline ESP-2 Data Logger and downloaded using the ESP-2 software.

3.2 Data from non-storage instruments, such as the Bicron μRem Gamma Survey Meter, are recorded manually on the Termination Survey Data Sheet (TSDS).

3.3 This procedure contains:

8.1 General
8.2 Transferring Data
8.3 Survey Unit Survey Completion

4.0 PRECAUTIONS

To prevent loss or corruption of data in data-storage instruments:

4.1 Maintain personal custody of instrument from sign out until turned in for downloading.

4.2 Do not drop or shock instrument.

4.3 Do not erase instrument memory until data has been downloaded.

4.4 Do not place instrument or storage media near elevated temperatures or a magnetic field.

5.0 PREREQUISITES

5.1 Personnel performing collection or processing of termination survey data shall review and understand the contents of this procedure.

5.2 This procedure will be used by Health Physics Technicians performing termination surveys, Health Physics Foremen and by Termination Survey Rad Engineers.

6.0 ACTIONS AND LIMITATIONS

N/A

7.0 MATERIALS AND/OR TEST EQUIPMENT

7.1 Personal computer (PC)

7.2 RS-232 Port and connecting cable

7.3 ESP-2 and software

7.4 3-1/2" double-sided/high-density microdisks

7.5 Canberra 2400 Counting System with software

7.6 Tennelec Counting System

7.7 SAC-4 Alpha Counter

7.8 Termination Survey Data Sheet(s)

8.0 PROCEDURE

8.1 General

8.1.1 Computer Disks

When needed, a 3-1/2", 1.44 MB Microdisk is formatted and labeled for the related survey unit indicating survey unit number and survey unit name. Each disk shall be dedicated to a specific survey unit and kept in its survey unit file once survey data has been downloaded to it.

8.1.2 File Naming

8.1.2.1 ESP-2

Data files downloaded from the ESP-2 to a PC subdirectory are renamed before copying to the survey unit disk. The format for renaming includes the survey unit number followed by a sequence letter, the day of the month and the file extension TXT. For example, the file name for the first set of data downloaded from survey unit TB019 on the 26th of the month would be TB019A26.TXT. The second set of data would be TB019B26.TXT. The first set of data from the same survey unit the next day would be TB019A27.TXT.

8.1.2.2 Canberra 2400 Counting System

Data from the Canberra 2400 are copied from the Canberra disk to the survey unit disk(s). Files are automatically named by the Canberra software for the survey unit number, and include a sequence letter, the day of the month, and have the file extension DAT. For example, TB019A26.DAT.

8.1.2.3 QC Replicate Survey Data

Data recorded for QC replicate surveys on the ESP-2 or Canberra 2400 are repeat measurements at original survey locations and are identified with those location codes. In order not to overwrite the previously stored files, the above named convention is followed except the file extension is QCA for the ESP-2 and QCB for the Canberra 2400 Counting System.

8.1.3 Non-Data Storage Instrumentation

For non-data storage survey instruments and when storage devices such as the ESP-2 or Canberra 2400 are not available, survey data is manually entered onto the TSDS and smear survey data is then printed out by the Tennelec printer. If the SAC-4 is used, these results shall be manually added to the printout. These forms are included in the survey unit survey package and entered into the database manually.

8.2 TRANSFERRING DATA

8.2.1 ESP-2

8.2.1.1 When a survey of a survey unit is complete or at the end of the shift, whichever is sooner, the HP Technician shall turnover the ESP-2 and the survey unit package to the Termination Survey Instrument Cage.

8.2.1.2 The HP Foreman shall ensure that the ESP-2 and the TSDS are transferred to a Termination Survey Rad Engineer for downloading to a pc.

8.2.1.3 The Termination Survey Rad Engineer, or his designated representative, shall download and transfer the data from ESP-2 memory to the pc as follows:

.1 Connect cable from the pc RS-232 port to the ESP-2.

.2 Turn on the ESP-2.

.3 Bring up the ESP-2 software program on the pc.

.4 Select option to "download data to a file" and "print data to a printer".

.5 After download is completed and confirmed by printout, erase the instrument data memory in preparation for the next use.

.6 The file(s) downloaded shall be transferred and renamed as described in 8.1.2.1.

.7 The printed output and the TSDS shall be turned over to the responsible Termination Survey Rad Engineer who shall check the data for correctness and completeness before its inclusion into the termination survey data base and survey unit package. If the survey data is not correct or complete, the TSDS(s) shall be returned to the HP Foreman for amelioration.

.8 The survey unit disk files, along with the TSDS, are transferred to the database data entry clerk for entry and downloading to the termination survey data base.

.9 When the survey unit survey is complete, the survey unit disk will be transferred and included in, the survey unit package. If the disks are stored in a disk holder, then a note in the survey unit package shall be included to show the location of the disk.

8.2.2 Canberra 2400 Counting System (Canberra 2400)

8.2.2.1 Smear counting data are automatically loaded and named to a disk for each survey unit as described in 8.1.2.2. except for the file extension which is named DAT. A hardcopy of each data file is simultaneously printed.

8.2.2.2 When a disk is full, or at the end of a shift, whichever is sooner, the HP Foreman shall transfer the Canberra disk and printouts to a Termination Survey Rad Engineer.

8.2.2.3 The Termination Survey Rad Engineer or his designated representative shall copy the Canberra 2400 disk files to the appropriate survey unit disk(s). After all files are copied, the disks from the Canberra unit may be reused. The printouts are given to the Rad Engineer responsible for the survey unit.

8.2.2.4 The survey unit disk files along with the TSDS are transferred to the Database Data Entry Clerk for entry and downloading to the termination survey data base.

8.2.2.5 When the survey unit survey is complete, the survey unit disk will be transferred and included in the survey unit package or stored as described in 8.2.1.3.9.

8.2.3 Termination Survey Data Sheets (TSDS)

.1 The TSDS is filled out by the HP Technician and turned over to the HP Foreman along with the ESP-2.

.2 The HP Foreman shall turnover the TSDS and the ESP-2 to a Termination Survey Rad Engineer to allow for data downloading.

.3 The Rad Engineer, if not the one responsible for that survey unit, shall transfer the TSDS and the ESP-2 printout to the responsible Rad Engineer.

.4 The responsible Rad Engineer, after verification of the data, shall transfer the TSDS to the Database Data Entry Clerk for input into the database and ensure that the TSDS and the ESP-2 printout(s) are included in the survey unit package.

8.3 Survey Unit Survey Completion

When the survey unit package is complete, all data verified and printed out, and the database has been backed up to tape or disk (done on a weekly basis), the survey unit computer disk(s) may be erased and prepared for reuse with the prior approval of the Termination Survey Engineer.

9.0 ACCEPTANCE CRITERIA

The Termination Survey Data Sheet(s), printouts from the ESP-2 and smear data must be correct and agree with the survey design before being accepted and included in the termination survey database and survey unit package.

10.0 FINAL CONDITIONS

When the survey unit survey is complete, the data loaded onto the termination survey database and verified complete and correct by the Termination Survey Rad Engineer responsible for the survey unit, then the TSDS(s), the smear data sheet(s) and the survey unit computer disk, if retained, is filed with the survey unit package.

11.0 REFERENCES

11.1 SP67X001.02 Termination Survey Procedure

11.2 SP63X022.02 Data Logger Operations Procedure

11.3 SP63X026.02 Canberra Counter Operations Procedure

11.4 SP67X001.07 Document Control and File Management Procedure

11.5 Termination Survey Plan

12.0 APPENDICES

12.1 Termination Survey Data Flow Diagram

TERMINATION SURVEY DATA FLOW