

I. METEOROLOGICAL AND PRECIPITATION DATA IN ENGINEERING SYSTEMS

Precipitation in the Tennessee River Basin reports are prepared and issued monthly and annually. These reports are used to provide information to other TVA organizations and to the public for evaluating flood zones, site planning for future power facilities, community planning, legal actions, etc. The reports are compiled from raw data which is collected in a variety of ways as follows

1. Rain Gauge Recorder Charts

Recording rain gauges are placed at various points throughout the Valley to obtain a continuous measurement of rainfall at that location. The measurements are recorded on charts, thereby creating rain gauge recorder charts

We are requesting a longer retention period. These records are needed to go back and retrieve information on storm events. This is the only complete and continuous record of storm events. Also, it is the only source of information for specific locales. Engineering Services still refers to these records for trending studies and to look at past events of an extreme scale. Used for developing climatology of the region. Our customer in ERC also uses.

2. Observer Reports and Weather Summaries.

Observer reports, form 478 and series, Rainfall Record, are completed daily by personal service contractors at approximately 100 stations throughout the Valley. Observers are needed to manually collect the information at certain points where only daily readings are sufficient

Weather summaries are monthly reports, written by field engineers, of weather conditions in eight designated areas within the Valley. The summaries briefly describe weather conditions during a specific month. Information was extracted from the summaries and included in the precipitation reports. The weather summaries were discontinued in 1977. We are requesting a longer retention period because we need to go back and retrieve information on storm events. This is the only complete and continuous record of storm events. Also, the only source of information for specific locales. Engineering Services still refers to these records for trending studies and to look at past events of an extreme scale. Used for developing climatology of the region. Our customer in ERC also uses. Also, these rainfall and snowfall records are not on a digital data base and are the only records of snowfall.

3. Nuclear Equipment Calibration and Data Validation Records

These Nuclear quality assurance records contain instrument calibrations, equipment calibrations, and data validation records to support meteorological data for TVA nuclear plant sites. The records are filed by plant. Volume for the period mid-1970's to 1989 is 5 cubic feet. The records dated through 1989 were batch-filmed in 1994. Subsequent records will be batch-filmed when a roll is accumulated

4. Meteorological database and computer-generated reports

In the mid-70's, the PRE-ENDSTORE Database was created on the mainframe for archiving environmental data to meet Nuclear Regulatory Commission and Environmental Protection Agency regulations at power plants. The software was upgraded to ENDSTORE in 1978 and NEXSTORE in 1993. Hourly meteorological data are included in the data base. This database is managed by Resource Group, Engineering Services. Computer-generated reports containing

raw data and flagged data are generated daily and used in daily troubleshooting. Handwritten notes describing data trends or suspected problems are scribed onto the computer-generated reports and are used in data validation. The computer-generated reports are dated from the mid-1970's and continuing, and the approximate annual accumulation of the computer reports is 1 cubic foot.

5. **Tower Chart for Nuclear Power sites**
This series contains meteorological data on analog charts used for identifying problems. The information in digital form is considered the record copy by Nuclear Power, and the tower chart data analog charts are used as backup data. These records began in the mid-1970s and continuing. The volume of the hard copy records in 1994 is approximately 17 cubic feet and accumulates at the rate of 2 cubic feet per year. The records through 1992 were sent to records storage in Knoxville on July 26, 1994. Subsequent records will be sent when enough has accumulated for 1 cubic-foot box.
6. **Evaporation Data Reports**
Contain data collected by observers from various sites. These data are used in support of water budget analyses and by to determine amount of streamflow for reservoir operations-helps predict how much water will flow into the reservoirs. Evaporation studies were done from 1935 through 1980-actual records may not go back to 1935.
7. **Trouble Report form number 11038**
This form is used to document a problem at a site. The form documents the date, location, problem being reported, who reported it, how it was handled, etc. The reports are done in support of nuclear plants and are filmed on a yearly basis.
8. **Special reports on weather phenomena**
These are written only when an unusual event occurs in a specific area. For example, a special report may be written on ice storms, snow storms, or tornadoes, and any other abnormal weather conditions reported in the precipitation reports. These reports are single-source documents that depict the weather conditions in the Tennessee Valley region from 1934-1980.
9. **Precipitation in the Tennessee River Basin Reports.**
These are prepared and issued monthly and annually by the Engineering Systems' Data Services Department (formerly the Hydraulic Data Branch). The reports are used to provide information to other TVA organizations and to the public for evaluating flood zones, site planning for future power facilities, community planning, legal actions, etc. Measurements from raw data were used to print the precipitation reports. The precipitation reports were discontinued in April 1980, however, the gauges are still read. The rain-gauge recorder charts are maintained by the Engineering Data Services Team and are referenced frequently.
10. **Visibility Data Charts and Reports.**
Contain data collected at Bull Run and Paradise Steam Plants. Monitoring is done to collect data to see if plant operation contributes to visibility problems (as a result of ash and particulates being emitted from the stack and acting as a nuclei for water vapor to condense and from water droplets (fog). Studies were

discontinued in 1981. Collected to prove to states that plants are not contributing to visibility problems.

DISPOSITION

1. Rain-gauge Recorder Charts (rainfall charts)

Destroy when 50 years old Transfer to the FRC when 5 years old.
(formerly NC1-142-88-4 item 2b)
2. Observer Reports and Weather Summaries

Destroy when 50 years old. Transfer to the FRC when 5 years old.
(formerly NC1-142-88-4 item 2c)
3. Nuclear Equipment Calibration and Data Validation Records (records generic to nuclear plants).
 - A. Mid 1970's to 1989.
Destroy when the newest record is 60 years old Transfer to FRC when 5 years old.
 - B. 1990 and continuing
 1. Record Copy - Destroy when microfilm is verified
 2. Microfilm - Destroy when newest records is 60 years old.
 3. Working Copy, destroy when no longer needed for reference.
4. A. NEXSTORE Database and Printouts (Documents problems with data. Validation notes used for reference in audits and for questions).
 1. Printouts and validation notes. Destroy when newest records is 60 years old. Transfer to KRC when 2 years old
 2. Data Elements - Update or revise as needed
Destroy when newest record is 60 years old
- B. Fossil Meteorological Reports which are validated and initialed flagged data (1972-1987).

Printouts, instrument calibrations, equipment calibrations, and data validation records - Destroy when newest record is 60 years old.
Transfer to KRC annually. Transfer to FRC when 5 years old
5. Tower Charts Data for Nuclear Power Sites

Destroy when 18 months old

- 6 **Evaporation Data Reports**
Destroy when 50 years old Transfer to FRC when 5 years old
- 7 **Trouble Report, Form 11038**
 - A **Non-Nuclear Applications**
Destroy 5 years after problem has been handled.
 - B. **Nuclear Applications**
 - 1. **Reports in support of Nuclear Plants**
Microfilm - Destroy when the newest record is 60 years old
 - 2 **Working Copy in Engineering Services**
Destroy when no longer needed for reference.
- 8 **Special Reports and Weather Phenomena**
Destroy when 100 years old Transfer to TVA KRC on as needed basis
Transfer to FRC when 5 years old (NC1-142-88-4, Item 2d).Volume 2 cu.ft
- 9. **Precipitation in the Tennessee River Basin Reports**
Destroy when 100 years old Transfer to the KRC on as needed basis.
(NC1-142-88-4, item 2a).Volume - undetermined
- 10. **Visibility Data Charts and Reports**
Destroy when 50 years old. Transfer to FRC when 5 years old.