

REQUEST FOR RECORDS DISPOSITION AUTHORITY <i>(See Instructions on reverse)</i>		LEAVE BLANK (NARA use only)	
TO NATIONAL ARCHIVES and RECORDS ADMINISTRATION (NIR) WASHINGTON, DC 20408		JOB NUMBER N1-142-94-4	DATE RECEIVED 4-25-94
1. FROM (Agency or establishment) Tennessee Valley Authority		NOTIFICATION TO AGENCY In accordance with the provisions of 44 U S C 3303a the disposition request, including amendments, is approved except for items that may be marked "disposition not approved" or "withdrawn" in column 10	
2. MAJOR SUBDIVISION Nuclear Power			
3. MINOR SUBDIVISION			
4. NAME OF PERSON WITH WHOM TO CONFER Georgia S. Greene	5. TELEPHONE (615)751-3701	DATE 8/1/94	ARCHIVIST OF THE UNITED STATES <i>[Signature]</i>

6. AGENCY CERTIFICATION
I hereby certify that I am authorized to act for this agency in matters pertaining to the disposition of its records and that the records proposed for disposal on the attached _____ page(s) are not now needed for the business of this agency or will not be needed after the retention periods specified; and that written concurrence from the General Accounting Office, under the provisions of Title 8 of the GAO Manual for Guidance of Federal Agencies,

is not required; is attached; or has been requested.

DATE 4/19/94	SIGNATURE OF AGENCY REPRESENTATIVE <i>Georgia S. Greene</i> Georgia S. Greene	TITLE Manager, Records Administration
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7 ITEM NO.	8. DESCRIPTION OF ITEM AND PROPOSED DISPOSITION	9. GRS OR SUPERSEDED JOB CITATION	10. ACTION TAKEN (NARA USE ONLY)
1	<u>Radiation Exposure Computer Database</u> This item is being resubmitted to include information about the current automated information system (REX) used to collect radiation data at TVA Nuclear Plants. The revision is necessary for compliance with a Nuclear Regulatory Requirement. (See attachment)	N1-142-89-16, I.11.1	

Copies sent to agency, NSE, ANS 8/4/94

RADIOLOGICAL CONTROL (RADCON)

Since the use of radioactive materials was initiated at TVA facilities, the RADCON program has resided in several organizations with different names. In 1980, RADCON was in the Office of Occupational Health and Safety (OCH&S) in Muscle Shoals, Alabama. In 1982, the plant RADCON organizations were transferred to Nuclear Power (NP) with the corporate RADCON staff remaining in OCH&S. In 1985, corporate RADCON was transferred to NP in Chattanooga, Tennessee. Each licensed and near term operating nuclear plant has a RADCON organization.

Plant and corporate RADCON jointly develop policy statements and standards that prescribe program requirements, with plant RADCON implementing the program. Major functions include:

Develop, implement, and manage the RADCON program with emphasis on As Low As Reasonably Achievable (ALARA);

Develop and implement the RADCON program for personal dosimetry, respiratory protection, instrumentation, and surveillance;

Control and monitor personnel exposure accrued by workers at a nuclear plant;

Control and monitor radioactive contamination and radioactive material;

Document site radiation levels to which personnel are exposed;

Conduct periodic assessments of the RADCON program; and

Generate sufficient records and documentation to reconstruct personnel exposure while at TVA facilities.

All personnel who are required to be monitored for radiation exposure at the TVA plants are assigned dosimetry devices. These devices monitor radiation dose rate or dose equivalent. Data are transferred electronically and manually inserted into a central mainframe computer, where application software performs dose calculations and data manipulations so that complete exposure information is available to the plants. In addition, data on protective requirements, training, and allowed doses are entered into the computer system and on paper to control and monitor exposure. Data are updated on a daily basis. Various reports are then generated so that regulatory compliance can be maintained. Some data are maintained on computer media (disks and tapes) while other RADCON data are printed, microfilmed, and stored.

RADIOLOGICAL CONTROL (RADCON) (Continued)

There are significant numbers and types of records generated by RADCON. Such records include: dosimetry measurements and calculations, instrument calibrations, training, access to radiologically controlled areas of a plant, quality control tests, and regulatory required reports. These records are stored and used as TVA's official documentation of radiation exposure received by personnel. These records must allow TVA to reconstruct, for legal purposes, situations and conditions that go into assessing personnel doses. Creation and maintenance guidelines for these records are described in ANSI N13.6-1966 (R1972), 10 CFR 20, ANSI N45.2.9-1974, and ANI Bulletin 80-1A (1993).

RADCON dosimetry records were originally microfilmed, and a written logbook was established that referenced the type of records filmed on each roll. This logbook was indexed into RIMS (TVA's comprehensive records management system). Current dosimetry records are being microfilmed and indexed into a subprogram of RIMS (i.e., RIMS-RADCON). The retention time for this subprogram is different than the RIMS retention because of the requirements in American Nuclear Insurers (ANI) Bulletin 80-1A. ANI requires that radiological protection records "be retained for the life of the nuclear liability insurance policy plus the subsequent ten years during which claims may be covered by the policy". This is interpreted to mean "when a nuclear plant is retired," but because TVA personnel transfer between the four nuclear plants and other TVA facilities that use radioactive materials, the 10-year requirement is based on the retirement of the last nuclear organization.

Item 1. RADIATION EXPOSURE COMPUTER DATABASE

Previous computer databases (Radiation Exposure Management System (REMS), Health Physics Dose Tracking (HPDT), ALARA, and Personnel Issue Control (PIC)) were established as collection systems for RADCON data. In January 1992, these systems were completely replaced by the Radiation Exposure System (REXS). REXS

serves information needs for corporate and plant RADCON staffs to demonstrate regulatory and liability compliance. REXS is a records system in which TVA's RADCON organizations enter data. REXS was designed specifically to take advantage of current technology for maintaining and handling records that are required to possess high accuracy, retrievability, and integrity. The design included: use of audit trails and files, security levels for authorized data changes and updates, data file backups, software quality assurance plans to control development, modification, and testing, and disaster recovery techniques. Data are stored electronically on disk drives, then converted periodically to magnetic tape for backup. Paper copy from which data are taken for entry into REXS is evaluated, authenticated, microfilmed, and indexed. For those records in which a paper copy is not created, disks and magnetic tape are considered the record copy.

DISPOSITION**A. Machine-readable records database****a. Magnetic Tape**

Magnetic tape is updated at least every 2 years to assure that data will not be lost because of tape retention flaws or because of upgraded computer technology. Destroy 10 years after all nuclear organizations are retired.

RADIOLOGICAL CONTROL (RADCON) (CONTINUED)DISPOSITIONA. Machine-readable records database (Continued)~~b. Security Backup Electronic Files~~

GRS 20, Item 8b.

~~Security backup files are stored at offsite non-TVA facility.
Magnetic tapes are updated daily. Destroy 10 years after all
nuclear organizations are retired.~~

~~c. REXS Documentation~~GRS 20,
Item 11a.

~~Documentation is retained with related software versions.
Destroy in agency 10 years after all nuclear organizations are retired.~~

B. Paper records and computer printouts

RADCON has generated some records in the form of paper documents and computer printouts. These records are evaluated, authenticated, microfilmed, and indexed.

DISPOSITION1. Paper Recordsa. Paper copies of microfilmed records

Destroy when microfilm has been verified.

b. Paper copies as record copies

Destroy in agency 10 years after all Nuclear Organizations are retired.

2. Computer Printoutsa. Paper copies of microfilmed printouts

Destroy when an acceptable microfilm copy is obtained.

b. Duplicate copies

Destroy when no longer needed.

RADIOLOGICAL CONTROL (RADCON) (CONTINUED)**C. MICROFILM**

Paper copies are filmed randomly in employee name order, chronological order, badge number order, or other unique RADCON identifier. The film is arranged by roll number.

DISPOSITION**1. Record Copy**

- a. Destroy in agency 10 years after all nuclear organizations are retired. Transfer silver halide positive to NUS as soon as the integrity of the film is verified. (To determine when the contingent disposition may be applied and these records destroyed, TVA will review the records for possible disposal every 10 years.)

2. Duplicate NUS Copies

- a. Destroy in agency when no longer needed for reference.

D. INDEX OF COMPUTERIZED LISTING**DISPOSITION****1. Record Copy**

- a. Destroy in agency 10 years after all nuclear organizations are retired.

2. Other Copies

- a. Destroy in agency when no longer needed for reference.

JUSTIFICATION FOR EXTENDED RETENTION FOR

1.A. Machine-Readable Records Data Base (Including magnetic tape, security backup electronic files and, REXS documentation)

We are requesting an extension of retention for these records because of requirements in American Nuclear Insurers (ANI) Bulletin 80-1A. ANI requires that radiological protection records " be retained for the life of the nuclear liability insurance policy, plus the subsequent 10 years during which claims may be covered by the policy". This is interpreted to mean "when a nuclear plant is retired," but because TVA personnel transfer between four nuclear plants and other TVA facilities that use radioactive materials, the 10-year requirement is based on the retirement of the last nuclear plant.