

# REQUEST FOR RECORDS DISPOSITION AUTHORITY

(See Instructions on reverse)

LEAVE BLANK (NARA use only)

JOB NUMBER  
N1-142-92-18

DATE RECEIVED  
4-29-92

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request, including amendments, is approved except for items that may be marked "disposition not approved" or "withdrawn" in column 10.

TO: NATIONAL ARCHIVES and RECORDS ADMINISTRATION (NIR)  
WASHINGTON, DC 20408

1. FROM (Agency or establishment)  
TENNESSEE VALLEY AUTHORITY

2. MAJOR SUBDIVISION  
RESOURCE GROUP

3. MINOR SUBDIVISION

4. NAME OF PERSON WITH WHOM TO CONFER  
LINDA E. BLEVINS

5. TELEPHONE  
615-751-2524

DATE JUN 9 ARCHIVIST OF THE UNITED STATES  
*John W. Carl*

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 2 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	SIGNATURE OF AGENCY REPRESENTATIVE	TITLE
4/22/92	<i>Linda E. Blevins</i>	ASSISTANT TVA ARCHIVIST

7. ITEM NO.	8. DESCRIPTION OF ITEM AND PROPOSED DISPOSITION	9. GRS OR SUPERSEDED JOB CITATION	10. ACTION TAKEN (NARA USE ONLY)
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1	See the attached item for the Phosphate Development Works Records		
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All changes to this proposed schedule have been approved by:

*Richard W. Murray* 5/25/95 *Georgia S. Frame* 5/23/95  
NARA appraiser date Agency representative date

Copies sent to agency, NSR, FNS, NIA 6/14/95

## 1. PHOSPHATE DEVELOPMENT WORKS RECORDS

This series contains the records of the Phosphate Development Works (PDW) program. The initial contractual action toward the construction of PDW occurred between the Army Corps of Engineers and private contractors in December 1950. A Memorandum of Agreement (MOA) was signed in January 1951 between the Department of the Army and TVA. This MOA provided for the necessary land on TVA's Muscle Shoals, Alabama, reservation. TVA's facility at Muscle Shoals was established to perform chemical engineering research and development in fertilizer and agricultural-related areas. TVA's staff at this facility had a continuous association with the PDW facility from 1951 until the facility was closed and disposed of in 1992.

During the period from December 1950 through January 1953, PDW was designed and built using the dimethyl hydrogen phosphite process (DMHP) to produce the national requirement for methyl dichloro phosphine oxide, commonly referred to as "dichloro." Dichloro is the third step intermediate used in production of the nerve agent GB. The plant was built with two independent operation process lines consisting of four separately identifiable production centers and common support facilities.

Effective January 1, 1953, PDW was established as an industrial installation and a token quantity of dichloro was produced during the period April-June 1953. From September 1953 through June 1957, a quantity of dichloro sufficient to satisfy the national requirement was produced and shipped.

By December 1958, the facility had been decontaminated and shut down. From December 1958 through October 1962, the plant was maintained in standby under minimum power. During this same period, because of the difficulty in disposing of by-products and because of the costly and hazardous operation of the phosphorus oxychloride reduction furnace, plans were made to convert from the DMHP process to the High Temperature Methanization-Pyro process (HTM-Pyro).

From October 1962 through May 1964, the conversion was made on one of the two process lines available and added necessary additional facilities. The change to the HTM-Pyro process maintained the same production capacity while using only one line of the facility. This completely eliminated the phosphorus oxychloride reduction furnace and significantly reduced the quantity of by-products.

Upon completion of the conversion to the HTM-Pyro process in 1964 it was decided, because of economic reasons and the lack of production requirements, to abandon plans to conduct trial operations. Therefore, the installation was again placed in a standby condition and was maintained in various states of readiness until March 1988.

In February 1987 the Army contracted with TVA to utilize certain equipment and facilities at PDW to set up a small scale plant to purify a quantity of dichloro stored at another installation. The stored dichloro was transferred, purified, and reshipped during the period from February 1987 to March 1988. In March 1988 the decision was made to dispose of the plant. In September 1990, TVA was provided the funding to proceed with disposal, which was expected to take two years.

1. PHOSPHATE DEVELOPMENT WORKS RECORDS (continued)

The PDW plant is located on approximately 63 acres of land on TVA's Muscle Shoals Reservation. The main raw materials for the operation, phosphorus and chlorine, were provided from TVA's phosphorus furnaces located approximately one mile from the installation. Water was supplied from an Army-owned pumping station on Pickwick Lake, a reservoir of the nearby Tennessee River. Steam and electricity were supplied from tie-ins to TVA's Muscle Shoals facilities. Other necessary materials and supplies were shipped in from commercial sources.

An Administrative Manual was issued to reflect mutual administrative procedural understandings. The manual described arrangements between the Chemical Corps, Department of the Army, and TVA, such as:

I. GENERAL ADMINISTRATION

Authorization:

Operation

Plant Changes

Research and Development

Funds

Organization, Chemical Corps

Organization, TVA

Points of Contact

Property

Reports:

Operating Procedure

Progress

Statistical

II. ACCOUNTING AND ACCOUNTING REPORTS

Accounting, Introduction

Cost Accounting

Inventory Accounting

Overheads

Plant Accounting

Statements:

Invoices

Production Costs

Reimbursement

The PDW file maintained by TVA contains the Administrative Manual and unclassified administrative correspondence and reports on the design, construction, operation, and reactivation of the facility from 1950 to 1991. Also, there are engineering studies and operating manuals. The total volume of the TVA file is 13 cubic feet. The records are coded by the alpha-numeric classification system.

DISPOSITION

A. RECORDS WITH POTENTIAL PERMANENT VALUE

PERMANENT. Transfer to the Muscle Shoals Records Center upon approval of this schedule. Transfer to NARA in CY 1995.

2122D

B. *Records determined during archival processing to lack sufficient archival value to warrant permanent retention*

*Destroy immediately.*