

United States Government

Department of Energy

# memorandum

DATE: JAN 7 1999

REPLY TO  
ATTN OF: EM-42 (A. Williams, 903-8149)

SUBJECT: The Former Atomic Energy Commission and the Manhattan Engineer District Sites in Dayton, Ohio

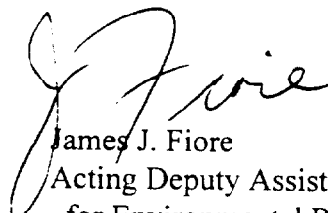
TO: W. Dennison, GC-51

I am attaching two copies of the Authority Review prepared by my staff for two sites in Dayton, Ohio, which were used by the former Atomic Energy Commission and the former Manhattan Engineer District. When the Formerly Utilized Sites Remedial Action Program (FUSRAP) was established, these sites were considered for inclusion. However, these sites were not included in FUSRAP because of a belief that there was no residual radioactivity on the premises.

Recently, a controversy has arisen as to whether or not the sites have residual radioactivity. Consequently, it is clear that these sites need to be reexamined under FUSRAP. The first step in doing so under the FUSRAP protocols is the preparation of an Authority Review and transmittal of the review to the Office of General Counsel. At my direction, my staff used the FUSRAP protocols for preparing this Authority Review.

If your evaluation of the Authority Review is in agreement with its general conclusions, I recommend that you forward the Authority Review to the Corps of Engineers for appropriate action.

Please call me if you have any questions.

  
James J. Fiore  
Acting Deputy Assistant Secretary  
for Environmental Restoration

Attachment (2)

cc: J. Owendoff, EM-1

bcc:  
W.A. Williams, EM-42  
A.S. Johnson, EM-42 *Ag 12/6/98*  
C. Young, BAH

Distribution:  
EM-40/GTN (2)  
EM-42/GTN (1)  
Williams Reader

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Hevner Review: *pk 1/7*

File Code: \_\_\_\_\_

# BOOZ·ALLEN & HAMILTON INC.

20201 CENTURY BOULEVARD • 4TH FLOOR • GERMANTOWN, MARYLAND 20874 • TELEPHONE: (301) 916-7200 • FAX: (301) 916-7277

November 16, 1998

W. Alexander Williams, PhD  
U.S. Department of Energy, EM-42  
Cloverleaf Building  
Washington, D.C. 20585-0002

Subject: Contract No: DE-AC02-98-EW-40465  
Task Order #: **BAH-98-002**, Work Segment #: **BAH-42-98-107A**  
**FUSRAP Authority Review for Former Dayton Plant, Units III and IV**

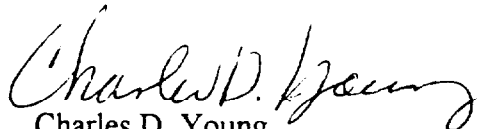
Dear Dr. Williams:

This deliverable was prepared under the FUSRAP Litigation Support Work Segment in response to your specific request of October 7, 1998, for an Authority Review for the Former Dayton Plant, Units III and IV.

The enclosed notebook, provided in two copies, contains the Authority Review, in accordance with "FUSRAP Designation/Elimination Protocol-Supplement No. 1 to the FUSRAP Summary Protocol" dated January 1986. Supporting documentation, included in the notebook, is indexed and tabbed to assist you in referencing the document.

If you have questions or comments concerning the material presented above or in the enclosure, please call me at (301) 916-7295 or Ron Humphreys at (301) 916-7332.

Sincerely,

  
Charles D. Young  
ASE, Inc.

Enclosure

cc: P. Blom, DOE  
B. Robey - w/o Enclosure

D. Rosendahl - w/o Enclosure  
R. Humphreys - w/o Enclosure

File

# **FUSRAP AUTHORITY REVIEW**

for

Former Dayton Plant, Units III and IV

Dayton, Ohio

OH-07-10

OH.07  
OH.45  
3687

DH. 7  
OH.49

THE AEROSPACE CORPORATION



Suite 7900, 955 L'Enfant Plaza, S.W., Washington, D.C. 20024-2174, Telephone: (202) 488-6000

7117-01.87.cdy.42  
22 September 1987

Mr. Andrew Wallo, III, NE-23  
Division of Facility & Site  
Decommissioning Projects  
U.S. Department of Energy  
Germantown, Maryland 20545

Dear Mr. Wallo:

DOCUMENTATION - ELIMINATION OF DAYTON  
AREA PLANTS III, IV AND VI

The attached Elimination Recommendation provides a site summary for the subject plants. The Dayton Plants III and IV (also known as Mound Laboratory Units III and VI) are currently on the FUSRAP list of eliminated sites. In accordance with instructions received during our meeting on 16 September, Unit IV (also known as Scioto Laboratory), located near Marion, Ohio, will be added to the list of eliminated sites.

Subsequent to the preparation of the attached, a copy of the draft Comprehensive Environmental Assessment and Response Program (CEARP) report, Phase I: Installation Assessment, Mound, dated April 1986 was reviewed. Findings contained in this report prepared by the Albuquerque Operations Office, Environmental, Safety and Health Division provide further justification for elimination of these sites from further consideration under FUSRAP.

Please call if you have questions regarding the attached recommendation.

Sincerely,

Charles D. Young  
Project Engineer  
Government Support Directorate  
Architecture Planning and  
Technology Division

bcc: E. Katz  
S. Jones

CDY/smb

Attachment

cc: J. Fiore  
R. Lewis (w/o)  
File

Dayton Plants III, IV, and VI (Scioto Laboratory)  
August 31, 1987

Site Function

A polonium production project was established in the summer of 1943 by Monsanto in Dayton for the AEC Dayton Area Office. In support of this project, Unit III was leased from October 1943 through mid-1950 for laboratory purposes. Unit IV was leased from February 1944 through mid-1950. Unit IV was utilized for the manufacture of polonium by the Lead Dioxide Process until May 1945, and subsequently by the Bismuth Process. Operations at Units III and IV were moved to Mound Laboratory in late 1948 - early 1949. The two properties were decontaminated and returned to their owners in 1950. Unit VI, Scioto Laboratory, was built as a backup for Mound Laboratory. No information has been found that would indicate the facility was used for this purpose or that radioactive materials were ever handled on the facility.

Site Description

Unit III was located at 1601 W. First Street in Dayton, and was the site of a former schoolhouse. Monsanto constructed guard houses, storage facilities, and other temporary buildings on the site. An extensive decontamination program was conducted from May 2, 1949, to October 1949. The decontamination procedure included sanding, solvent washing, acid washing, detergent washing, and removal of contaminated items. Contaminated scrap and materials were transported to Mound Laboratory. A concrete slab that had supported a Quonset hut was left on the site.

Unit IV was located at Runnymede Road and Dixon Avenue in suburban Oakwood, the site of the former Runnymede Playhouse. There was one large building on the site and a one-and-a-half story garage. Three guard houses, a fireproof storage vault, and a fence were constructed by Monsanto on the site. Decontamination was conducted from May 2, 1949, through February 3, 1950, and involved more extensive demolition than at Unit III.

Unit VI was located about 100 miles northeast of the Mound facility near Marion, Ohio, at the former Scioto Ordnance Works. No information has been found that would indicate the physical layout of the facility.

Owner History

The Unit III property and buildings were owned by the Dayton Board of Education. The property and structures of Unit IV were owned by the Talbott Realty Company. This information is from 1950; it is not known whether the properties have changed hands since then. Unit VI was built by the Government or Government-owned property. Owner status subsequent to dismantlement of the facility is unknown.

### Radiological History and Status

The plan for decontamination of both units included the removal of all cold mechanical plumbing, heating, lighting, and laboratory equipment. Some interior demolition was planned. One method of decontamination was spraying "with a plastic to fasten down activity." Unit III was to be returned with the agreement that no major changes in walls, floors, or sewer lines be made in five years without consulting with Monsanto. In addition, the concrete slab was to be brought to an acceptable contamination level by painting and weathering in the open.

No information has been found which gives any indication of the present radiological status of the sites. However, the  $^{210}\text{Po}$  which was processed at Units III and IV had a half-life of 138 days and decayed to stable  $^{206}\text{Pb}$ . Therefore, after nearly 40 years there should be no detectable  $^{210}\text{Po}$  remaining. Unit VI was destroyed or dismantled, and there is no justification at this time for including it in the FUSRAP program. It is therefore recommended that these sites be eliminated from further consideration under FUSRAP.

### REFERENCES

"General & Statistical Data of Oak Ridge Directed Operations and Facilities Under ORDO Management as of June 1, 1948" (Reports & Statistics Branch).

"Completion Report for Disposal of Unit III, 1601 W. First Street, Dayton, Ohio," Report No. MLM-393 (Miamisburg, Ohio: Mound Laboratory, October 31, 1949).

"Completion Report for Disposal of Unit IV, Runnymede Road and Dixon Avenue, Dayton, Ohio", Report No. MLM-461 (Miamisburg, Ohio: Mound Laboratory, April 17, 1950).