

EXPERT SYSTEM LICENSE EVALUATION
EVALUATION REPORT FOR LICENSE R-00218

Licensee: SPENCER CHEMICAL COMPANY

Site of operation: JAYHAWK WORKS NEAR PITTSBURG, KS & JOPLIN, MO. MERRIAM, KS

DESCRIPTION OF ACTIVITY OR FACILITY: SOURCE MATL PROCESSING

--Type and form of materials licensed--

Material--

--Form--

SOURCE MATERIAL

Loose material

--For evaluation purposes, amounts of the following materials were obtained--

Material--

--Form--

--Amount--

--Unit--

SOURCE MATERIAL

LOOSE

2222.00

lb

Rank of the license based on the loose materials licensed: 7

DESCRIPTION OF SITE AT WHICH R-00218

WAS USED

JAYHAWK WORKS LOCATED 25 MILES S. OF PITTSBURG, KS. AND 20 MILES W. OF JOPLIN, MO. ALSO LISTED AS BEING AT MERRIAM, KS. AND BAXTER SPRINGS, KS.

1. License was for loose materials, or materials handled loose
2. There was one identifiable site with this license.
3. Some likelihood that activity could have generated significant contamination. Rank=rank*1.0

Reviewer's comments concerning potential CONTAMINATION

LICENSEE WORKED WITH LOOSE MATERIALS IN OPERATIONS WITH A POTENTIAL FOR CONTAMINATION. THE PROCESS PRODUCES WASTE WHICH IS SENT TO A RESTRICTED AREA SETTLING BASIN AND/OR AN EFFLUENT STREAM WHICH FLOWS INTO AN UNRESTRICTED STREAM (SPRINGS RIVER).

4. There was NO verifiable decontamination of the site at closeout. Rank=rank*1.2
5. There was inconclusive evidence of releases to the environment or there was evidence of limited release. Rank=1.2*rank
6. Information insufficient to judge frequency of turnover for operation Rank not changed
7. There was limited use of contaminated waste material in the operation. Rank=rank*1.2.
8. Possible inappropriate disposal or abandonment of contaminated waste material. Rank=rank*1.1
9. No documentation of materials disposition, or very inadequate Rank=rank*1.2
10. There was no information in file indicating burial or dumping by licensee. Rank not changed
11. Because the rank of the license was below 20 at this point, a closeout survey was not necessarily warranted.

--- continued on next page ---

[Handwritten signature and date]
A/1/17

12. Because the licensee did have some form of closeout survey, the rank of the site will be reduced according to the quality
13. The closeout survey was conducted in the period 1980 or after
Rank=rank*.65
14. There was some check for alpha contamination, but not thorough.
Rank=0.85*rank
15. There was NOT an NRC FINAL INSPECTION of the facility. Rank not changed.

CATEGORY FOR POTENTIAL SITE CONTAMINATION:
MODERATE PRIORITY-Category 1C

The final SITE ranking for this license is: 8.6

Description of THE LICENSEE ACTIVITY AUTHORIZED by this license

IN PROCESS RESEARCH

PROCESS SEVERAL TYPES OF URANIUM AND THORIUM BEARING MATERIALS (MAINLY UF6 AND SCRAP) AND CONVERT TO UO2 FOR USE IN NUCLEAR ENERGY. SOME OF THE URANIUM IS NATURAL AND SOME APPEARS TO BE ENRICHED UP TO 5%.

Reviewer's comments concerning license R-00218

The license (issued Jan., 58 and expired 3-31-60) covered a pilot plant operation to convert various thorium and uranium containing materials into material for use in the fuel cycle of nuclear energy. Mainly they produced UO2 from UF6 or scrap. The inspection of Jan., 59, reported that 767 gms. of uranium (from the waste) went into the settling basin for the month on Nov., 58. At that time no analysis results of samples leaving the waste stream for unrestricted areas (such as the adjacent Springs River) were available, but the state of Kansas had made some random samplings. The survey conducted (in Aug., 81) by Gulf Oil Chemicals Co. (Gulf appeared to be the occupant of the site) did not check the stream and the settling basin, but concentrated on core drillings of soil at the burn site (formerly the wooden structure pressure vessel test lab which was dismantled and burned) which was at survey time a mature soybean field and the Advanced Materials plant/building. This survey should be reviewed for methodology and compliance with current standards. A survey by the state of Kansas (6-17-80) appears to be only for the Gulf program (C-14 & CS-137 used in a herbicide and pesticide program) and is completely useless for the evaluation of Spencer's R-218 license. There is no disposition of materials in this file and the inventory record for job 0384-box28 shows no disposition or other information which could help in the evaluation of this license.

EXPERT SYSTEM EVALUATION WAS BASED ON THE
INVENTORY RECORD IN JOB 0529, BOX 02

Docket 40-02136

Licensee: SPENCER CHEMICAL COMPANY

Address: DWIGHT BLD., KANSAS CITY, MO.

Zip:

State of operation: KS

Disposition information present: NO DISPOSITION INFORMATION GIVEN

A closeout survey was conducted for this license by a contractor-

This license was listed as expired on 03/31/60

Remarks: THIS IS BASICALLY AN INSPECTION FILE. BLDGS WERE BURNED & BURIED

JOB NUMBER: 0529 BOX NUMBER: 02

continued

CONTENTS OF
INVENTORY RECORD IN JOB 0384, BOX 28

Docket 40-02136

Licensee: SPENCER CHEMICAL SUPPLY

Address: KANSAS CITY MISSOURI

Zip:

Date of operation: MO

Disposition information present: NO DISPOSITION INFORMATION GIVEN

This license was listed as expired on / /

Remarks:

JOB NUMBER: 0384

BOX NUMBER: 28
