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MEMORANDUM FOR: Edward F. Hawkins, Acting Chief

Low-Level Waste Licensing Branch

FROM:

Timothy C. Johnson

Low-Level Waste Licensing Branch

SUBJECT:

NRC LIBENSEES LISTED AS HAZARDOUS CHEMICAL WASTE

GENERATORS

In L.R. Bowser's memorandum to R.D. Smith dated August 14, 1982 a list was prepared of NRC licensees in Virginia, Ohio and Illinois who were also listed by the Environmental Protection Agency as hazardous chemical waste generators (Attachment 1). This list includes primarily hospital and university licensees but does include several potential industrial waste generators. In order to ensure that it was unlikely that hazardous chemical wastes could be an intrinsic component of radioactive wastes, I reviewed the licenses of twenty-three of the industrial firms.

In summary, the industrial firms reviewed had licenses for:

- a. Possession of various sources for irradiation, gauges and analyzers
- b. Possession of various tracers
- c. Manufacture and distribution of products containing isotopes
- d. Distribution of products to persons exempt from licensing

With the exception of the use of tracers, it appears that hazardous chemical waste generation activities are separated from those activities which could generate radioactive waste materials.

I have attached a listing of the license information for the surveyed firms (Attachment 2).

Paul H. Lebens to

Timothy C. Johnson Low-Level Waste Licensing Branch

Enclosure: As stated above

NRC Licenses For Hazardous Chemical Generators

Illinois

1. Amersham Corporation

12-12836

all Badioassay kit manufacture and gistribution; $\rm C^{14}$, $\rm H^3$, $\rm Cr^{51}$, $\rm Co^{58}$, several TRU Nuclides, U, Tc

b. Po²¹⁰ device manufacture and distribution

c. Discribution products to persons exempt from licensing under 830.18.

2. Cetron Electric

12-09745

a. Kr⁸⁵ for manufacture of electron tubes

b. Distribution of products to persons exempt from licensing under 830.15

3. Honeywell, Inc.

12-12267

 Am^{241} , Ni^{63} Foils for ionization chamber manufacture and testing

4. Laclede Steel Corporation

co⁶⁰, Cs¹³⁷, sealed sources for level and density gauges

5. National Steel Corporation

12-16682

a. Am²⁴¹, Cs¹³⁷ sealed sources for density gauges

b. Ni⁶³ foil for gas chromatography

6. Ni-Tec

12-20061

H³ light source manufacture and R&D

7. Northern Petrochemical Co.; Morris 12-13972

a. Cs ¹³⁷, Co⁶⁰ sealed source for level gauges

b. H^3 , Ni^{63} foils for gas chromatography

8. Sargent-Welsh Scientific Co. 12-6661

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Distribution of products to person exempt for licensing under 830.18

9. Shell Oil Co.

12-00379

 ${\rm Am}^{241}, \, {\rm Ni}^{63}, \, {\rm Pu}^{238}, \, {\rm Cs}^{137}, \, {\rm H}^3$ sealed and plated sources for density gauges and sulphur determination

10. Sherwin-Williams Co.

12-2542

- a. C¹⁴ Tracers
- b. Ni⁶³ foils for gas chromatography
- c. Cs¹³⁷ sealed sources for density and level gauges
- 11. Travenol Laboratories; Morton Grove; Round Lake 12-15777
 - a. H^3 , I^{175} Tracers for invitro testing
 - b. Distribution of I¹²⁵ kits
 - c. H^3 , C^{14} , P^{37} , S^{35} , Cr^{51} , I^{131} , Sn^{113} Lab tracers
 - d. Ni⁶³ foils for gas chromatography
- 12. Velsicol Chemical Corp.; Chicago 12-4225

 Cs¹³⁷ sealed sources for density gauges

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Ohio

- Cincinnati Electronics Corp. 34-16018
 Possession of activated electronic components from irradiation
- 2. Diamond-Shamrock Corp; Paynesville 34-583

a. c¹⁴, s³⁵, p³², H³, I¹²⁵, Ru⁸⁶ Tracers

b. H³, Ni⁶³ foils for gas chromatography

c. Am, 241 sealed source for x-ray fluorescence analyzer

d. Cs¹³⁷ sealed source irradiator

3. Dow Chemical Co; Granville

34-17601

- a. Ni⁶³ plated sources for gas chromatography
- b. Cs¹³⁷ sealed source for density gauge
- c. Kr⁸⁵ for density gauge
- d. Fe⁵⁵, Cd¹⁰⁹ for x-ray fluorescence analyzers
- e. Am²⁴¹ source for analyzer
- 4. Harshaw Chemical Corp; Solon

34-14598

Inactive License

5. Harshaw Chemical Corp; Cleveland 34-6558

- a. Cs¹³⁷ sealed source for density gauges
- b. Distribution of Am²⁴¹ sealed sources for scintillation detectors
- c. Various sealed and plated sources for R&D, testing, distribution and calibration
- 6. Proctor and Gamble Company; Cincinnatti 34-1572
 - a. Manufacture of Tc 99m reagent kits
 - b. incinerator license

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- c. H^3 , C^{14} , S^{35} , Mo/Tc^{99m} , I^{125} Tracers
- d. ${\rm Cs}^{137}$, ${\rm Co}^{60}$, ${\rm Am}^{241}$ sealed sources for flow, level and density gauges
- e. Cd¹⁰⁹ sealed source for x-ray fluorescence analyzer
- f. Co⁶⁰ sealed source irradiator

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Virginia

1. Atlantic Research Corp.

45-02808

- a. Co⁶⁰ sealed source for radiography
- b. Cs¹³⁷ sealed source for level gauge
- c. c^{14} , ce^{36} , cu^{64} , s^{35} tracers
- d. Ni⁶³ foil for gas chromatography

2. Hazelton Laborotories, Inc.

45-03253

- a. Cs¹³⁷ sealed source irradiator
- b. c^{14} , cr^{51} , H^3 , I^{125} , I^{131} , P^{32} , S^{35} for in-vitro clinical studies
- 3. Meloy Laboratories, Inc.

45-13733

Mo⁹⁹/Tc^{99m} tracers for protein labeling

4. Merck and Co., Inc.

45-3302

- a. P^{32} , H^3 , C^{14} , Co^{60} , Co^{58} tracers for laboratory and microbiology studies
- b. H³ foil for gas chromatography
- 5. Phillip Morris, USA

45-00385

- a. ${\rm H}^3$, ${\rm Ni}^{63}$ foils for gas chromatography
- b. Sr^{90} , Cs^{137} sealed sources for density gauges
- c. c¹⁴, cu⁴⁵, H³, S³⁵, P³² Tracers
- 6. Techicon Corp.

45-19163

Distribution of I^{125} tracers and in-vitro diagnostic kits

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