

**Lucent Technologies**  
Bell Labs Innovations



DCD

Microelectronics  
Lucent Technologies Inc.  
777 N. Blue Parkway  
Lee's Summit, MO 64086

September 6, 1996

Cynthia D. Pederson, Director  
Division of Nuclear Materials Safety  
U. S. Nuclear Regulatory Commission  
Region III  
801 Warrenville Road  
Lisle, Illinois 60532-4351

Subject: **Response to Apparent Violations in Inspection Report  
No. 030-05097/96001(DNMS)**

Dear Ms. Pederson:

This is in response to your letter dated July 30, 1996, concerning the two apparent violations that were identified as a result of the inspection conducted by the Nuclear Regulatory Commission (NRC) on May 21, 1996.

APPARENT VIOLATION

10 CFR 30.9(a) requires, in part, that information provided to the Commission by a licensee be complete and accurate in all material respects. However, licensee did not provide to the Commission information that was complete and accurate in all material respects. The letter stated that the company had decommissioned the facility. Attached to the letter was a NRC form 314 (Certificate of Disposition) signed by the RSO, December 20, 1993. This information was material because based on this information on February 4, 1994, the NRC terminated the license with amendment No. 25.

RESPONSE

Contaminated Machine Parts in Two 55 Gallon Drums

The former Radiation Safety Officer has advised us that based on the advice of C. Gene Bell, RadTrace Co., the outside consultant that was engaged to assist and oversee the decommissioning activities, he believed that any residual Kr-85 contamination would "gas off" quickly and the machine parts could then be

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disposed of as ordinary scrap. In a November 1995 telephone conversation with C. Gene Bell of RadTrace Co., Mr. Bell expressed surprise that the Krypton-85 had not "gassed off". The belief that the Kr-85 would "gas off" quickly now appears to have been in error. Lucent Technologies would not intentionally mislead or provide erroneous information to the NRC.

#### Contaminated Storage Canisters

The storage canisters, in the Tracer-Flo machines, had been declared at background levels by the outside consultant at the time of decommissioning in December, 1993. Item 4 in the consultant's service report (Attachment 1) states "Final radiation survey of both units, room and exhaust stack showed all surfaces background." There was no reason to suspect residual radioactivity at that time for these components. In addition, the final survey report of the Radiation Safety Officer for the Tracer-Flo process area ( Attachment 2) showed measurements at background.

#### Corrective Action

##### Contaminated Machine Parts in Two 55 Gallon Drums

We believe the contaminated components were handled properly and responsibly while they were still in our facility. They were stored in an exhausted and restricted area. When we became aware that the components still contained residual radioactivity, prompt action was taken to dispose of them properly. The contaminated machine parts were shipped to Chem-Nuclear's Barnwell Waste Management Facility on December 7, 1995. (Attachment 3)

All manufacturing activities involving the use radioactive materials were ceased prior to December, 1993. All Lucent Technologies manufacturing activities were terminated prior to the end of 1995 at this facility. The remaining work force, which is currently providing contract manufacturing support to Berg Electronics, is currently scheduled to go off roll by the middle of 1997 or sooner. The building and surrounding land are being offered for sale and a potential buyer has been identified. Therefore, we are not suggesting any changes to our management practices at this site.

##### Contaminated Storage Canisters

The storage canisters, which were certified to be at background by RadTrace Co. during the decommissioning activities in 1993 (Attachment 1), were left in the secured Tracer-Flo room. When it was discovered that there may be some residual radioactivity in one of the canisters, an effort was made to include the canister in the shipment to Barnwell, in December 1995. Because of the lead shielding, Chem-Nuclear was unable to accept the canister for burial.

Alternative disposal options were investigated in January, 1996. The canister was cut open to determine the possibility of decontamination locally. Only then was the level of contamination known. Survey readings inside the canister were in the 10-15 mR/hr. range.

On the advice of our Corporate Radiation Safety Officer, Scientific Ecology Group, Inc. (SEG) was contacted in late January, 1996, regarding proper disposal of the storage canister. SEG indicated that they had the capability to handle the radioactively contaminated lead shielded canister. Negotiations were begun between our purchasing organization and SEG, to define an agreement to handle our radioactive waste material. That agreement was finalized in June, 1996 and a purchase order was released on June 19, 1996 to SEG to dispose of the radioactive Tracer-Flo storage canisters and one of the activation chambers which was found to be contaminated during the NRC inspection visit on May 21, 1996.

After several unsuccessful attempts to schedule a pickup, the contaminated storage canisters and activation chamber were picked up by SEG on August 29, 1996.

#### APPARENT VIOLATION

*10 CFR 30.3 requires, in part, that except for persons exempted, no person shall possess or use byproduct material except as authorized by a specific general license pursuant to Title 10, Chapter 1, Code of Federal Regulations. However, since the license was terminated on February 4, 1994, and the former licensee did not dispose of the radioactive waste, the failure to dispose of the material is an apparent violation of 10 CFR 30.3.*

#### RESPONSE

The completion of the decommissioning of the Tracer-Flo facility in 1993, the termination of all activities utilizing licensed radioactive materials, and the belief of the Radiation Safety Officer, based on the advice of the outside consultant, that the Kr-85 contamination would "gas off" quickly, prompted him to believe that we no longer had any activity that would require a license.

#### Corrective action

In conjunction with the phase-out of manufacturing activities at this location, the purchasing manager at this location, contacted an equipment broker in the fall of 1995 to pursue the possible sale of the "decommissioned Tracer-Flo equipment". The equipment broker was not interested in purchasing the equipment, but

offered to decommission the facility for a fee. The current Environmental & Safety Coordinator understood that this decommissioning had already been performed in 1993, based on the records regarding the decommissioning activity. As noted above, RadTrace Co. had been engaged to assist and oversee the decommissioning activities.

Our Corporate Radiation Safety Officer was contacted and asked if any further action was necessary prior to the disposal of the Tracer-Flo equipment. He suggested that a final radiation survey to confirm that everything was at background would be appropriate. During this survey, in November 1995, one of the storage canisters was found to have a reading slightly above background. At this time, it was also observed that the two 55 gallon drums of parts from the decommissioning activity were still on site. Survey readings of the top surface of the open drums showed them to be above background. At that time, it was not known that there were additional radioactive contaminated items.

After consulting with our Corporate Radiation Safety Officer, Chem-Nuclear Systems, Inc. was contracted to dispose of the radioactive waste material that had been identified. The two 55 gallon drums of Tracer-Flo machine parts were picked up by Chem-Nuclear on December 7, 1995 for transport to Barnwell for burial. The storage canister was not included because of the lead content.

Survey readings of the storage canister at the inlet/outlet port suggested a low level of contamination. It was decided to cut this open to determine the possibility of decontamination locally. The canister was cut into two sections in January, 1996. Only then was the level of contamination known. Survey readings inside the canister were in the 10-15 mR/hr. range. As noted above, the company began to pursue disposal possibilities.

Also as noted above, Scientific Ecology Group, Inc. (SEG) was contacted in late January, 1996, regarding proper disposal of the storage canister. SEG indicated that they had the capability to handle radioactively contaminated lead shielded canister. Negotiations were begun between our purchasing organization and SEG, to define an agreement to handle our radioactive waste material. That agreement was finalized in June, 1996 and a purchase order was released on June 19, 1996 to SEG to dispose of the radioactive Tracer-Flo storage canisters and one of the activation chambers determined to be contaminated during the NRC inspection visit on May 21, 1996.

SEG completed the packaging and shipment of the radioactive materials on August 29, 1996. A copy of the manifest is attached under Attachment 4.

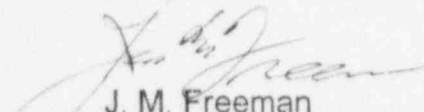
All Lucent Technologies manufacturing activities were terminated prior to the end of 1995 at this facility. The remaining work force, which is currently providing contract manufacturing support to Berg Electronics, is currently

scheduled to go off roll by the middle of 1997 or sooner. The building and surrounding land are being offered for sale and a potential buyer has been identified. Therefore, we are not suggesting any changes to our management practices at this site.

To the best of our knowledge, this facility is now in full compliance with all NRC regulations and no remaining issues exist at this facility related to licensed radioactive material.

I affirm that this response was prepared under my direction and supervision and all information contained herein is accurate and complete, to the best of my knowledge.

Please let me know if you have any further questions.



J. M. Freeman  
Operations Director

Attachments

RADTRACE CO.

3821 SOUTH TEAKWOOD STREET

(714) 731-7055

SANTA ANA, CALIFORNIA 92707

SERVICE REPORTCUSTOMER'S REFERENCE NO.DATE: Dec 3, 1993POKCS12207CompanyAT&T777 N. BLUE PEARL WAYLee's Summit, MO 64063REPAIRS DEACTIVATION OF TRACER-FLO #1 & #591. BOTH SYSTEMS WERE AIR WASHED VIA  
THE EXHAUST BLOWER STACK.2. ALL K185 CONTAMINATED COMPONENTS  
VAC PUMPS, COMPRESSORS, VALVES &  
METAL PARTS WERE PLACED IN (2)  
55 GAL DRUMS FOR DISPOSAL.3. CONTAMINATED PUMP OIL WAS OUTGASED  
VIA THE EXHAUST STACK.4. FINAL RADIATION SURVEY OF BOTH UNITS, ROOM  
AND EXHAUST STACK SHOWED ALL SURFACES BKG. .025 mrad/hr.P/NPriceINSTRUMENT SERVICED TRACER-FLO #1 & #59SERVICED BY C. Gene Bell

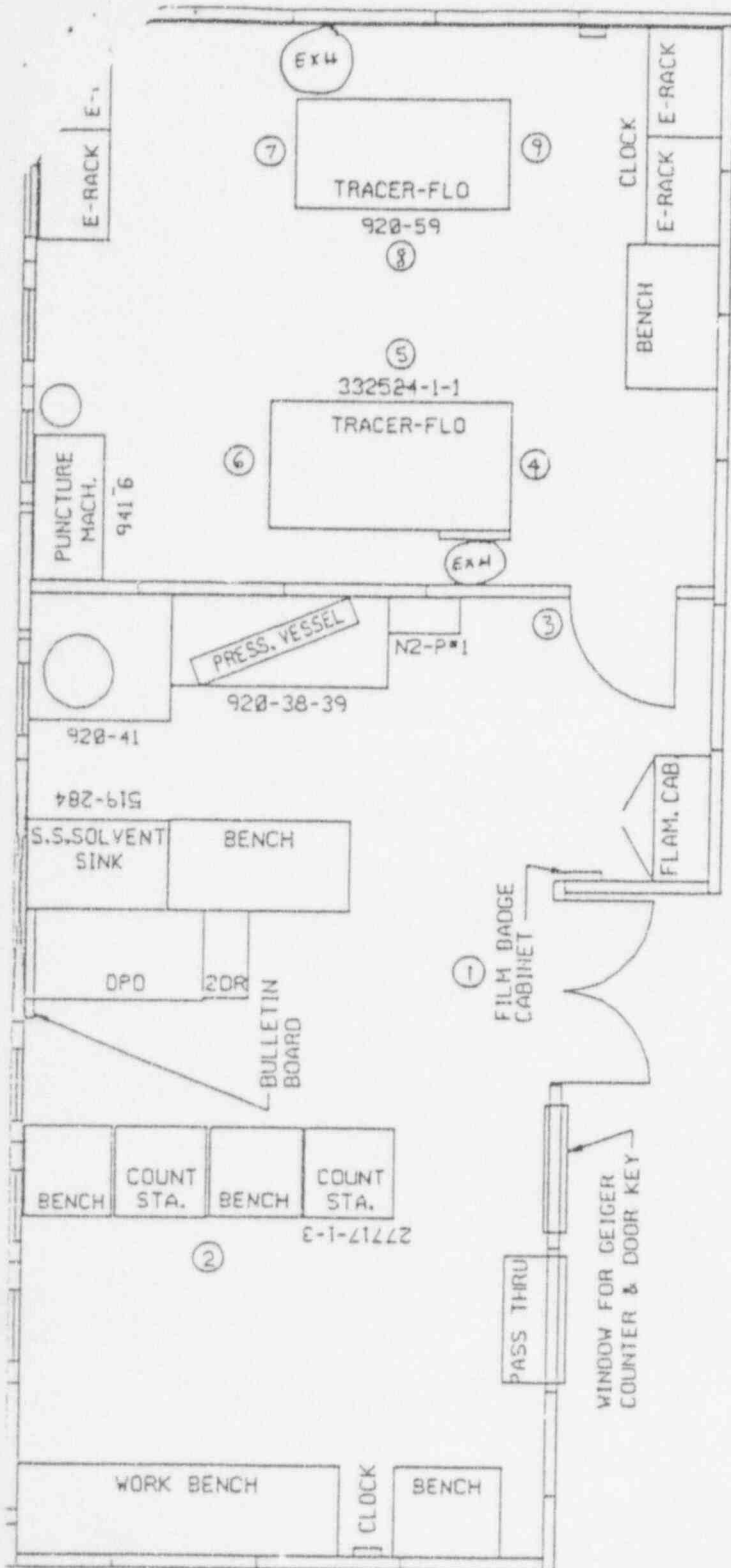
RECEIVED BY \_\_\_\_\_

\* SMEAR WIPE TEST SHOWED INSIDE OF BOTH EXHAUST STACKS  
TO BE NO GREATER THAN BKG. RADIATION OF .025 mrad/hr



## Attachment 2

## TRACER FLOW SURVEY



- |                       |                        |
|-----------------------|------------------------|
| 1. <u>.02 mrem/hr</u> | 6. <u>.02 mrem/hr</u>  |
| 2. <u>.02 " "</u>     | 7. <u>.02 mrem/hr</u>  |
| 3. <u>.025 " "</u>    | 8. <u>.02 mrem/hr</u>  |
| 4. <u>.025 " "</u>    | 9. <u>.025 mrem/hr</u> |
| 5. <u>.02 " "</u>     |                        |

TF 920-59 Log Check ✓TF920-1 Log Check ✓TF920-59 Act. Log Check ✓TF920-1 Act. Log Check ✓

## TOTAL CURIES

IN

DATE

TF920-59 0 12/6/93TF920-1 0 12/6/93LAST SURVEY 11/1/93TODAY'S DATE 12/6/93INSTRUMENT USED Nuclear-Chicago 2650

SURVEYED BY

R. L. Griffe 12/6

APPROVED BY

R. L. Griffe 12/6 L. Debra 12/16/93

COMMENTS

Final Surveyall areas are at background level of radioactivityR. L. Griffe 12/6

## CHEM-NUCLEAR SYSTEMS, INC.

P.O. Box 726 | Barnwell South Carolina 29812 | (803) 259-1781

## Attachment 3

## STRAIGHT BILL OF LADING—SHORT FORM—ORIGINAL—NOT NEGOTIABLE.

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill

## of Lading

The property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown). Marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination. If on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination. And as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the uniform domestic straight bill of lading set forth (1) in official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail-water shipment. Or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

(MAIL OR STREET ADDRESS OF CONSIGNEE FOR PURPOSES OF NOTIFICATION ONLY.)

FROM: AT&amp;T (Kansas City Works)

DATE: 07-Dec-95

At Lee's Summit, MO. 64063

CONSIGNEE TO: Chem-Nuclear Systems, Inc.

Barnwell Waste Management Facility

DESTINATION: Osborn Road, Snelling,

STATE: South Carolina. 29812.

Control Number

TSMT W.O. #

695444

INITIAL TRUCK NO. 224

FINAL Tractor No.

FINAL Trailer No.

LENGTH

LEGAL

HEIGHT

LEGAL

WIDTH

LEGAL

\*\*\*\*\* EMERGENCY CONTACT:

BARNWELL SECURITY (803) 259-6069 \*\*\*\*\*

No. Pkgs.	HM	KIND OF PACKAGE, DESCRIPTION OF ARTICLES, LINER NUMBERS, SPECIAL MARKS & EXCEPTIONS	WEIGHT (Subject to Correction)
2	X	Radioactive Material, n.o.s., 7, UN2982. (2) 55-gal metal drums of Electron Tubes. RADIONUCLIDES: Ra226 TOTAL ACTIVITY: 1.0 millicurie. PHYSICAL FORM: Solid CHEMICAL FORM: Oxide CONTAINER TYPE: Metal drum CONTAINER SPEC.: US D.O.T. 7A, Type A TRANSPORT INDEX: 0.7 This vehicle is consigned "Exclusive Use" no intermediate loading or unloading is allowed unless authorized by the consignor, or consignee.	426
* SEE PAGE (2) OF (5) *			
		CNSI Security Seal No.: 0775, 0780	

IMPORTANT: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature  
Company

Barnon Bradley

CNSI

Date

07-Dec-95

Received the property described above in good condition, except as otherwise noted.

Carrier

Driver

Date and time

Tri-State Motor Transit, Inc.

James Thweint

07-Dec-95 @

SCHEDULED TO ARRIVE	DATE 07-Dec-95	TIME A.M. 1100 P.M.	COMPLETED LOADING	DATE 07-Dec-95	TIME A.M. 1245 P.M.	SHIPPER'S SIGNATURE Barnon Bradley
ARRIVED AT SHIPPER	DATE 07-Dec-95	TIME A.M. 1200 P.M.	LEFT SHIPPER	DATE 07-Dec-95	TIME A.M. 1330 P.M.	SHIPPER'S SIGNATURE Barnon Bradley

SHIPPER IMPORTANT NOTE: Your signature certifies that the above dates and times are correct for record keeping and billing purposes.



BILL OF LADING-CONTINUATION PAGE  
PAGE 2 OF 3

SHIPMENT NUMBER: 1295-5338

NO. PKGS.	HM	KIND OF PACKAGE, DESCRIPTION OF ARTICLES, LTRX NUMBERS, SPECIAL MARKS & EXCEPTIONS	* WEIGHT (SUB. TO CORRECTION)
2	X	Radioactive Material, Excepted Package-Limited Quantity of Material, 7, UN2910. (2) 55-gal Metal Drums containing Mechanical Equipment (valves, tubing, compressors, etc.) Radionuclides: Kr 85 Total Activity: 1.24 millicuries Physical Form: Solid Chemical Form: Oxides Container Type: Metal Drum Container Specification: Strong-Tight Container Marking (non-spec): Radioactive Placarding: None Required CNSI Security Seal No.: 0775, 0780 This vehicle is consigned "Exclusive Use" no intermediate loading, or unloading is allowed unless authorized by the consignor, or consignee.	1094

TSMT IS HEREBY GIVEN PERMISSION  
TO UNLOAD/LOAD THIS SHIPMENT OF  
MATERIAL INTO A DROM CONTAINER  
AT THEIR JOPLIN, MO. YARD.

THIS SHIPMENT IS REQUIRED TO  
BE HELD AT THE BARNWELL, SC.  
TSMT YARD FOR CNSI/DCF  
INSPECTION PRIOR TO ARRIVAL AT  
THE CNSI/BARNWELL WASTE MANAGEMENT  
FACILITY.

UPON TRANSFER TO THE DROM  
CONTAINER, THE SHIPMENT MUST BE  
PROPERLY BLOCKED, AND BRACED

Thomas Newcomb TSMT  
Bannon Bradley - CNSI

APPROVED BY OMB NO 1550-0144 EXPIRES 93 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 1.17 HOURS. THIS INFORMATION REQUEST IS REQUIRED BY NRC TO MEET REPORTING REQUIREMENTS OF FEDERAL AND STATE AGENCIES FOR THE SAMPLING, TRANSPORTATION, AND TO THE PAPERWORK AND TO THE PAPERWORK.

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER

1-803-259-6069

ORIGINATOR CHEM - NUCLEAR SYSTEMS, INC.

2 IS THIS AN EXCLUSIVE USE SHIPMENT? YES NO

3 TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 4

4 EPA MANIFEST NUMBER N/A

5 U.S. DEPARTMENT OF TRANSPORTATION (including proper name, hazard class, UN ID number, and any additional information) RADIOACTIVE MATERIAL, N.E.S., 7, UN2812

6 DOT LABEL "RADIOACTIVE" YELLOW-11

7 NRC FORM 840 (1-87)

8 EMERGENCY TELEPHONE NUMBER (Include Area Code) 1-803-259-6069

9 ORIGINATOR NAME AND ADDRESS 777 N. BREEZEWAY LEE'S SUMMIT, MO 64063

10 SHIPMENT NUMBER 945-95-01

11 USER PERMIT NUMBER 2495-24-95-4

12 CONTACT STEVE OBERKROM

13 CARRIER NAME AND ADDRESS TRU - STATE NORTH STREET. ENST SEVENTH STREET. JOPLIN, MO.

14 SHIPMENT DATE 07-DEC-95

15 TELEPHONE NUMBER (Include Area Code) 1-800-846-8388

16 DATE 07-DEC-95

17 SHIPPER ID NUMBER 1295-5338

18 COLLECTOR

19 PROCESSOR TYPE (Specify) INDUSTRIAL

20 TELEPHONE NUMBER (Include Area Code)

21 EPA ID NUMBER N/A

22 SHIPPER DATE 07-DEC-95

23 TITLE BARON BRADLEY Sr. HAZMAT BROKER

24 AUTHORIZED SIGNATURE

25 TOTAL PACKAGE ACTIVITY IN UNITS 37 MBq

26 LSN/SCO CLASS N/A

27 TOTAL WEIGHT OR VOLUME (Use appropriate unit) 42.1 lbs

28 IDENTIFICATION NUMBER OF PACKAGE 3

29 DATE 07-DEC-95

30 CONTACT MIKE BENJAMIN 1-803-259-1781

31 SIGNATURE - Authorized employee acknowledging receipt

32 CERTIFICATION This is to certify that the herein named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This is to certify that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the requirements of 10 CFR Parts 20 and 31, or equivalent state regulations.

FOR CONSIGNEE USE ONLY

D.O.T. SHIPPING PAPERS. PAGE (3) OF (5)

## BARNWELL WASTE MANAGEMENT FACILITY

(1) GENERATOR NAME: AT&T  
 FACILITY: Lee's Summit Facility  
 ADDRESS: 777 N. Blue Parkway  
 CITY/STATE/ZIP: Lee's Summit, MO. 64063  
 CONTACT: Steve Oberkrom  
 PHONE: (816) 251-4186

Operated by CHEM-NUCLEAR SYSTEMS, INC.  
 PO Box 726, Barnwell, South Carolina 29812  
 (803) 259-1781

## RADIOACTIVE SHIPMENT MANIFEST FORM

## EMERGENCY RESPONSE CONTACT:

CNSI Security  
 PHONE: (803) 259-6069

(3A) RADIOACTIVE WASTE TRANSPORTATION PERMIT NO.  
2945 4-95-Y

(4) USE THIS NUMBER ON  
 ALL CONTINUATION PAGES  
 (3B) NUMBER OF GENERATORS

SHIPMENT I.D. NUMBER  
1295-5338  
 PAGE 1  
 OF 2

(2) BILL TO: CNSI/DCFE  
 CONTRACT/P.O. NO. 56144

(5) CARRIER: ISMT DOT SHIPPING PAPERS PAGE (4) OF (5)  
 ADDRESS: E. 7th St. Joplin, MO.  
 TELEPHONE: (800) 846-8768 SHIPPING DATE: 7-DEC-95  
 SHIPMENT TY: PE, Closed Van SHIPMENT SURFACE EXPOSURE 5 mR/hr  
 CASK IDENTIFICATION NO. N/A USA 1  
 SHIPMENT NO. N/A LINER TYPE N/A  
 LINER SERIAL NO. NA  
 DRIVER SIGNATURE Steve Oberkrom DATE 07-DEC-95

(6) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	I.D. NUMBER	Reportable Quantity or Fissile Exempt
NO. OF PACKAGES	WEIGHT (POUNDS)			
		Radioactive Material, excepted package - empty packaging, 7	UN2910	
		Radioactive Material, fissile, n.o.s., 7	UN2918	
		Radioactive Material, low specific activity, n.o.s., 7	UN2912	
2	426	Radioactive Material, n.o.s., 7	UN2982	Fissile Exempt
		Radioactive Material, excepted package - limited quantity of material, 7	UN2910	Fissile Exempt
2	1094	Radioactive Material, special form, n.o.s., 7	UN2974	
		Radioactive Material, excepted package - instruments or articles, 7	UN2910	
		Other (Specify)		

(7)		SHIPMENT TOTALS					Source Materials (Pounds)
Disposal Volume (ft3)	Total No. of Packag:s	ACTIVITY (10CFR20.311)					
		Millicuries					
		All Isotopes	Tritium	C-14	Tc-99	I-129	
30.0	4	2.24	NP	NP	NP	NP	NP

(8) TOTAL SNM		
Isotope	Grams	No. Packages
U-233	NP	0
U-235	NP	0
PU	NP	0
Total	NP	0

(9) MINIMUM WASTE PACKAGE % FILL 90 %  
 (10) SOLIDIFICATION AGENT None Used

(11) NUMBER AND TYPE OF CONTAINERS (4) 55-gal. metal drums

(12) Mechanical Equipment (i.e. valves, tubing)  
 WASTE DESCRIPTION: compressor, electron tubes  
 (13) PHYSICAL FORM: Solid  
 (14) CHEMICAL FORM: Oxide

(15) NAME AND % OF CHELATING AGENT(S) None / 0%  
 (16) WASTE FORM CLASS AS

17) (X) Yes ( ) No THIS VEHICLE IS CONSIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

(18) IMPORTANT: "This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation."

Signature Barron Bradley / Barron Bradley  
 Company Chem Nuclear Systems Date 07-DEC-95

(19) "Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low-level radioactive waste has been prepared in accordance with a radioactive waste management program which has been approved by the Nuclear Regulatory Commission or an Agreement State regulatory agency and has been inspected in accordance with the requirements of South Carolina Radioactive Material License No. 097 as amended, and the Nuclear Regulatory Commission License No. 12-13538-01 as amended, and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment, and further certification is made that the inspection revealed no items of non-compliance with all applicable laws, rules and regulations."

Date 07-DEC-95 Signature Steve Oberkrom

Title and Organization Environmental Coordinator / AT&T  
 Telephone No. (816) 251-4186

FORM NO. CNS-201  
 (7-93)

## CNSI USE ONLY

☒ This material meets all license requirements.  
☒ This material was disposed of in accordance with license.  
 Discrepancy \_\_\_\_\_

Crane \_\_\_\_\_ Forklift X  
 Shielded \_\_\_\_\_ Personnel \_\_\_\_\_  
 Barrier \_\_\_\_\_

Overpack S/N \_\_\_\_\_  
 Overpack Lid S/N \_\_\_\_\_  
 Other \_\_\_\_\_

Date: 12-14-95  
 Authorized Signature Billy E. C. Title H.P.

## D.O.T. Shipping Papers. Page (5) of (5)

USE THIS NUMBER ON  
ALL CONTINUATION PAGES

CONTRACTOR NAME	AT&T
AT&T	

CONTINUATION SHEET

[illegible]Form No. CNS-201  
(5-87)



## SPECIALIZED GENERATOR SERVICES RADIOACTIVE MATERIAL SHIPMENT MANIFEST

Our Vision

To be the safest, highest performing, innovative waste management company in the world, accomplished by combining teamwork, exceptional customer service, the application of advanced technologies, and a commitment to excellence.

P.O. Box 2530  
1560 Bear Creek Road  
Oak Ridge, TN 37830  
(615) 481-0222

Generator Name Luxent Tech.  
 Generator No. 1111111111  
 Address 777 N. Blue Pkwy.  
 City Lee's Summit State MO Zip 64086  
 Contact Phone #  
 TN Shipper Lic # SEL Brokered  
 User Permit # 2945-24-96-4  
 Bill Disposal Charges To   
 Name   
 Address   
 City  State  Purchase Order #

Page 1 of 2GENERATOR  
MANIFEST NO.

FRGO Schulz  
 Emergency 423-481-0222  
 Contact & Phone

SEG  
 Shipment No. 962293

Date 8/29/96  
 Shipped

Total For Each Class	"RQ" If Any	PROPER SHIPPING NAME & HAZARDOUS CLASS	Haz. Class	Id Number
# of Packages	Weight (pounds)			
		Radioactive material, excepted package-articles manufactured from natural or depleted Uranium or natural Thorium	7	UN2910
		Radioactive material, excepted package-empty packaging	7	UN2910
		Radioactive material, excepted package-instruments or articles	7	UN2910
		Radioactive material, excepted package-limited quantity of material	7	UN2910
		Radioactive material, fissile, n.o.s.	7	UN2918
<u>5</u>	<u>4599</u>	Radioactive material, low specific activity LSA, n.o.s. (LSA II)	7	UN2912
		Radioactive material, n.o.s.	7	UN2982
		Radioactive material, special form, n.o.s.	7	UN2974

Item No.	Process Requested	Radio-Nuclide Each Container	mCi Of Each Nuclide	Total mCi Activity Each Container	Physical Form	Chem Form & Waste Description Chelating agents < .1%	Waste Form Class	Special Nuclear Material (grams)	Source Material (pounds)	Container Weight (pounds)	Container Volume (Cu. Ft.)	Container Type	Container Surface SdR/HR R/HR	(T.F.) 1 Meter mR/HR	Fissile Class	Labels Markings Used
<u>1</u>	<u>Transship</u>	<u>U-238</u>	<u>.008</u>	<u>.008</u>	<u>Sol.</u>	<u>METAL, PAPER, PLASTIC, GLASS.</u>	<u>A</u>	<u>0</u>	<u>.05</u>	<u>180</u>	<u>7.5</u>	<u>STRONG</u>	<u>2.5</u>	<u>N/A</u>	<u>N/A</u>	<u>Radioactive - LSA</u>
		<u>TH-232</u>	<u>.009</u>	<u>.009</u>		<u>COLD CATHODE ELECTRON TUBES,</u>			<u>.18</u>							<u>Radioactive -</u>
		<u>KA-95</u>	<u>.011</u>	<u>.011</u>		<u>Fluor scintillators, concrete,</u>										<u>Radioactive -</u>
		<u>TH-234</u>	<u>.003</u>	<u>.003</u>		<u>Solidified Uranyl Ac. Int.</u>										<u>Radioactive -</u>
		<u>RA-226</u>	<u>.016</u>	<u>.016</u>		<u>Solidified Thorium IV-tritate</u>										<u>Radioactive -</u>
																<u>Radioactive -</u>
<u>1</u>				<u>.047</u>												
PAGE TOTALS								<u>0</u>	<u>.23</u>							

SHIPMENT TOTALS

Volume Cu. Ft.	Total # of Packages	Source Material (lbs.)	U-233	U-235	Plutonium	TOTAL
<u>37.5</u>	<u>5</u>	<u>.23</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

ACTIVITY

Activity Totals:	Tritium	C-14	Tc-99	I-129	All Isotopes
<u>Curies</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>6.047</u>

Shipper represents and warrants that data set forth in this Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Shipper Signature

THIS VEHICLE IS CONSIGNOR EXCLUSIVE USE, LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT.

YES ( ) NO



