SEQUOYAH FUELS
A GENERAL ATOMICS COMPANY

RE: 9461-N

May 19, 1994

Certified Mail
Return Receipt Requested

U.S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, D.C. 20555

RE: License No. SUB-1010; Docket No. 40-8027
Incident of April 19, 1994

Gentlemen:

Sequoyah Fuels Corporation (SFC) contacted the NRC Operations Center by telephone at approximately 6:20 p.m. on April 19, 1994 regarding a potential contamination event involving a shipment of yellowcake from the SFC facility. The call was made an as information call to the NRC due to our contacting the Department of Transportation (DOT) regarding the event.

Subsequent evaluation by the response team from SFC revealed that the event did not result in any contamination above the applicable release limits. Based on this evaluation, we have determined that the event is not reportable under the requirements of 10 CFR 20.2202, 20.2203, or 40.60.

SFC has filed a report to the Department of Transportation on Form DOT F 5800.1. A copy of that report is enclosed for your information.

Please contact me at 918/489-3386 if there are any questions regarding this subject.

Sincerely,

Craig L. Harlin
Director, Regulatory Affairs

CLH:BWR:nv

Enclosure

xc: L. J. Callan, NRC Region IV

HIGHWAY 10 & I-40 PO BOX 610, GORE, OKLAHOMA 74435 (918) 489-5511 FAX: (918) 489-2291

NMD

Certified P401 891 924

DEPARTMENT OF TRANSPORTATION
HAZARDOUS MATERIALS INCIDENT REPORT

Form Approved OMB No. 2137-0039

INSTRUCTIONS: Submit this report in duplicate to the Information Systems Manager, Office of Hazardous Materials Transportation, DHM-63, Research and Special Programs Administration, U.S. Department of Transportation, Washington, D.C. 20590. If space provided for any item is inadequate, complete that item under Section IX, keying to the entry number being completed. Copies of this form, in limited quantities, may be obtained from the Information Systems Manager, Office of Hazardous Materials Transportation. Additional copies in this prescribed format may be reproduced and used, if on the same size and kind of paper.

I. MODE, DATE, AND LOCATION OF INCIDENT

1. MODE OF TRANSPORATION: ☐ AIR ☒ HIGHWAY ☐ RAIL ☐ WATER ☐ OTHER

2. DATE AND TIME OF INCIDENT (Use Military Time, e.g. 8:30am = 0830, noon = 1200, 6pm = 1800, midnight = 2400) Date: 04 / 19 / 94 TIME: 1600

3. LOCATION OF INCIDENT (Include airport name in ROUTE/STREET if incident occurs at an airport.)

CITY: Forrest City STATE: Arkansas

COUNTY: St. Francis ROUTE/STREET: Interstate 40 at Exit 242

II. DESCRIPTION OF CARRIER, COMPANY, OR INDIVIDUAL REPORTING

4. FULL NAME
Sequoyah Fuels Corporation - Shipper
Tri-State Motor Transit Company - Carrier

5. ADDRESS (Principal place of business)
P. O.Box 610
I-40 and Highway 10
Gore, OK 74435

6. LIST YOUR OMC MOTOR CARRIER CENSUS NUMBER, REPORTING RAILROAD ALPHABETIC CODE, MERCHANT VESSEL NAME AND ID NUMBER OR OTHER REPORTING CODE OR NUMBER. ICC# MC109397

III. SHIPMENT INFORMATION (From Shipping Paper or Packaging)

7. SHIPPER NAME AND ADDRESS (Principal place of business)
Sequoyah Fuels Corporation
P. O. Box 610
I-40 and Highway 10
Gore, OK 74435

8. CONSIGNEE NAME AND ADDRESS (Principal place of business)
Allied Signal, Inc.
Highway 45 North
Metropolis Sampling Plant
Metropolis, IL 62960

9. ORIGIN ADDRESS (If different from Shipper address)
N/A

10. DESTINATION ADDRESS (If different from Consignee address)
N/A

11. SHIPPING PAPER/WAYBILL IDENTIFICATION NO. Notice of Shipment #5389

IV. HAZARDOUS MATERIAL(S) SPILLED (NOTE: REFERENCE 49 CFR SECTION 172.101.)

12. PROPER SHIPPING NAME	13. CHEMICAL/TRADE NAME	14. HAZARD CLASS	15. IDENTIFICATION NUMBER (e.g. UN 2764, NA 2020)
Radioactive Material, LSA, N.O.S.	Uranium Ore Concentrates	7 Radioactive Material	UN2912

16. IS MATERIAL A HAZARDOUS SUBSTANCE? ☒ YES ☐ NO

17. WAS THE RQ MET? ☐ YES ☒ NO

V. CONSEQUENCES OF INCIDENT, DUE TO THE HAZARDOUS MATERIAL

18. ESTIMATED QUANTITY HAZARDOUS MATERIAL RELEASED (Include units of measurement)	19. FATALITIES	20. HOSPITALIZED INJURIES	21. NON-HOSPITALIZED INJURIES
None	None	None	None

22. NUMBER OF PEOPLE EVACUATED: None

23. ESTIMATED DOLLAR AMOUNT OF LOSS AND/OR PROPERTY DAMAGE, INCLUDING COST OF DECONTAMINATION OR CLEANUP (Round off in dollars)

A. PRODUCT LOSS	B. CARRIER DAMAGE	C. PUBLIC/PRIVATE PROPERTY DAMAGE	D. DECONTAMINATION/ CLEANUP	E. OTHER
None	None	None	None	None

24. CONSEQUENCES ASSOCIATED WITH THE INCIDENT:
☐ SPILLAGE ☐ FIRE ☐ EXPLOSION ☐ VAPOR (GAS) DISPERSION ☐ ENVIRONMENTAL DAMAGE ☐ MATERIAL ENTERED WATERWAY/SEWER ☒ NONE ☐ OTHER:

VI. TRANSPORT ENVIRONMENT

25. INDICATE TYPE(S) OF VEHICLE(S) INVOLVED:
☐ TANK CAR ☐ RAIL CAR ☐ TOFC/COFC ☐ CARGO TANK ☐ AIRCRAFT ☒ VAN TRUCK/TRAILER ☐ BARGE ☐ FLAT BED TRUCK/TRAILER ☐ SHIP ☐ OTHER:

26. TRANSPORTATION PHASE DURING WHICH INCIDENT OCCURRED OR WAS DISCOVERED:
☒ EN ROUTE BETWEEN ORIGIN/DESTINATION ☐ LOADING ☐ UNLOADING ☐ TEMPORARY STORAGE/TERMINAL

27. LAND USE AT INCIDENT SITE: ☐ INDUSTRIAL ☐ COMMERCIAL ☐ RESIDENTIAL ☐ AGRICULTURAL ☒ UNDEVELOPED

28. COMMUNITY TYPE AT SITE: ☐ URBAN ☐ SUBURBAN ☒ RURAL

29. WAS THE SPILL THE RESULT OF A VEHICLE ACCIDENT/DERAILMENT? ☐ YES ☒ NO
IF YES AND APPLICABLE, ANSWER PARTS A THRU C.

A. ESTIMATED SPEED:	B. HIGHWAY TYPE: ☐ DIVIDED/LIMITED ACCESS ☐ UNDIVIDED	C. TOTAL NUMBER OF LANES: ☐ ONE ☐ THREE ☐ TWO ☐ FOUR OR MORE	SPACE FOR DOT USE ONLY

for information on the innermost package.

ITEM	A	B	C
30. TYPE OF PACKAGING, INCLUDING INNER RECEPTACLES (e.g. Steel drum, tank car)	Steel Drum		
31. CAPACITY OR WEIGHT PER UNIT PACKAGE (e.g. 55 gallons, 65 lbs.)	55 Gallons		
32. NUMBER OF PACKAGES OF SAME TYPE WHICH FAILED IN IDENTICAL MANNER	1		
33. NUMBER OF PACKAGES OF SAME TYPE IN SHIPMENT	35		
34. PACKAGE SPECIFICATION IDENTIFICATION (e.g. DOT 17E, DOT 105A100, UN 1A1 or none)	None		
35. ANY OTHER PACKAGING MARKINGS (e.g. STC, 18/16-55-88, Y1.4/150/87)	None		
36. NAME AND ADDRESS, SYMBOL OR REGISTRATION NUMBER OF PACKAGING MANUFACTURER	N/A		
37. SERIAL NUMBER OF CYLINDERS, PORTABLE TANKS, CARGO TANKS, TANK CARS	N/A		
38. TYPE OF LABELING OR PLACARDING APPLIED	Radioactive		
39. IF RECONDITIONED OR REQUALIFIED — A. REGISTRATION NUMBER OR SYMBOL	N/A		
39. IF RECONDITIONED OR REQUALIFIED — B. DATE OF LAST TEST OR INSPECTION	N/A		
40. EXEMPTION/APPROVAL/COMPETENT AUTHORITY NUMBER, IF APPLICABLE (e.g. DOT E1012)	N/A		

VIII. DESCRIPTION OF PACKAGING FAILURE: Check all applicable boxes for the package(s) identified above.

41. ACTION CONTRIBUTING TO PACKAGING FAILURE

	A	B	C		A	B	C	
a.	☐	☐	☐	TRANSPORT VEHICLE COLLISION	j. ☐	☐	☐	CORROSION
b.	☐	☐	☐	TRANSPORT VEHICLE OVERTURN	k. ☐	☐	☐	METAL FATIGUE
c.	☐	☐	☐	OVERLOADING/OVERFILLING	l. ☐	☐	☐	FRICTION/RUBBING
d.	☐	☐	☐	LOOSE FITTINGS, VALVES	m. ☐	☐	☐	FIRE/HEAT
e.	☐	☐	☐	DEFECTIVE FITTINGS, VALVES	n. ☐	☐	☐	FREEZING
f.	☐	☐	☐	DROPPED	o. ☐	☐	☐	VENTING
g.	☐	☐	☐	STRUCK/RAMMED	p. ☐	☐	☐	VANDALISM
h.	☐	☐	☐	IMPROPER LOADING	q. ☐	☐	☐	INCOMPATIBLE MATERIALS
i.	☐	☐	☐	IMPROPER BLOCKING	r. ☒	☐	☐	OTHER Defective Gasket

42. OBJECT CAUSING FAILURE

	A	B	C	
a.	☐	☐	☐	OTHER FREIGHT
b.	☐	☐	☐	FORKLIFT
c.	☐	☐	☐	NAIL/PROTRUSION
d.	☐	☐	☐	OTHER TRANSPORT VE
e.	☐	☐	☐	WATER/OTHER LIQUID
f.	☐	☐	☐	GROUND/FLOOR/ROAD
g.	☐	☐	☐	ROADSIDE OBSTACLE
h.	☒	☐	☐	NONE
i.	☐	☐	☐	OTHER

43. HOW PACKAGE(S) FAILED

	A	B	C	
a.	☐	☐	☐	PUNCTURED
b.	☐	☐	☐	CRACKED
c.	☐	☐	☐	BURST/INTERNAL PRESSURE
d.	☐	☐	☐	RIPPED
e.	☐	☐	☐	CRUSHED
f.	☐	☐	☐	RUBBED/ABRADED
g.	☐	☐	☐	RUPTURED
h.	☒	☐	☐	OTHER Gasket Failed

44. PACKAGE AREA THAT FAILED

	A	B	C	
a.	☐	☐	☐	END, FORWARD
b.	☐	☐	☐	END, REAR
c.	☐	☐	☐	SIDE, RIGHT
d.	☐	☐	☐	SIDE, LEFT
e.	☒	☐	☐	TOP
f.	☐	☐	☐	BOTTOM
g.	☐	☐	☐	CENTER
h.	☐	☐	☐	OTHER

45. WHAT FAILED ON PACKAGE(S)

	A	B	C	
a.	☐	☐	☐	BASIC PACKAGE MATE
b.	☐	☐	☐	FITTING/VALVE
c.	☐	☐	☐	CLOSURE
d.	☐	☐	☐	CHIME
e.	☐	☐	☐	WELD/SEAM
f.	☐	☐	☐	HOSE/PIPING
g.	☐	☐	☐	INNER LINER
h.	☒	☐	☐	OTHER Gasket

IX. DESCRIPTION OF EVENTS: Describe the sequence of events that led to incident, action taken at time discovered, and action taken to prevent future incidents. Include any recommendations to improve packaging, handling, or transportation of hazardous materials. Photographs and diagrams should be submitted when necessary for clarification. ATTACH A COPY OF THE HAZARDOUS WASTE MANIFEST FOR INCIDENTS INVOLVING HAZARDOUS WASTE. Continue on additional sheets if necessary.

See "Description of Events" attached.

46. NAME OF PERSON RESPONSIBLE FOR PREPARING REPORT	47. SIGNATURE	
Billy W. Reid	Billy W. Reid	
48. TITLE OF PERSON RESPONSIBLE FOR PREPARING REPORT	49. TELEPHONE NUMBER (Area Code)	50. DATE REPORT SIGNE
Manager, Licensing	(918) 489-3203	05/19/94

DESCRIPTION OF EVENTS

BACKGROUND

On Tuesday, April 19, 1994, Sequoyah Fuels Corporation (SFC) shipped three (3) shipments of uranium ore concentrate (yellowcake) from it's facility at Gore, Oklahoma to the Allied Signal, Inc. facility at Metropolis, IL. The shipments were via semi-trailer truck and the carrier was Tri-State Motor Transit Company. The shipments were released from the SFC site at approximately 1000, and were travelling together en route to their destination.

NOTIFICATION OF EVENT

At approximately 1700 SFC received notification of the event from the Tri-State dispatcher. It was stated that the driver in the truck behind the vehicle involved had noted an apparent water leak from inside the trailer. The observed water outside the trailer was observed to be on a mud flap and approximately 1 square foot on the highway surface.

ACTIONS TAKEN IN RESPONSE TO THE EVENT

On instructions from SFC, the driver broke the seal on the truck and looked in the trailer. Upon opening the trailer, a wet spot (no standing water) covering approximately 10 square feet was observed. The water appeared to be coming from a single drum in the second row from the back of the trailer. The trucks were just east of Forrest City, Arkansas on US Interstate 40 at mile marker 242 at the time. This is approximately six (6) hours from the Sequoyah Fuels Corporation facility.

Based on the information available, the preliminary response included the assessment that no Event Classification was required under the provisions of the Sequoyah Fuels Corporation Contingency Plan, notification to the Department of Transportation (DOT) was required, and a courtesy call should be made to the NRC notifying them of the event. The National Response Center was notified at 1800, report no. 235633, and the NRC Operations Center was notified at 1820, report no. 27124.

RESPONSE ACTIONS AND ASSESSMENT

Preparations were made to dispatch a response and assessment team to the event site to assess and remediate the leak. The preparations included a review of the materials available in the response trailer and the addition of other items which might be needed, including a drum lifting device, drying agent (cement), overpack drums, and a drum dolly. The response team left the SFC site at approximately 1930.

The response team arrived at the event site at approximately 0115 on April 20. In addition to the truck drivers, two representatives from the Arkansas Department of Health were at the scene, and representatives from the Arkansas Highway Patrol arrived at approximately 0245. The survey of the area, both inside and outside the vehicle and on the roadway beneath the vehicle, indicated that there was no removable contamination above applicable NRC release limits. A direct radiation survey was also performed and confirmed that there was no contamination above the release limits.

REMEDIATION

The truck contents were inspected and the suspect drum was isolated. When the drum was tilted to move it, a small amount of water "sloshed" out, apparently bypassing the gasket. No failure of the drum lid or closure ring was apparent. When the lid was removed, it was noted that the gasket had completely failed. There was a short section (approximately 4 to 6 inches) that had been folded back and was not in place under the lid. Approximately four (4) inches of water was perched on top of the yellowcake (which was solid), leaving about 2 inches of air space between the surface of the water and the bottom of the lid. The drum was a hand-made, Russian drum, and the lid was an odd size which could not be replaced with the lids available in the response trailer. The drum lid was inspected and no visible defects were found. Cement was added to the water to solidify the liquid and a new gasket was installed. The original lid was re-installed on the drum.

Surveys of the drum and adjacent areas showed no signs of contamination above the release limits. With the concurrence of the representatives of the Arkansas Department of Health, the drum was left in the truck, and the trucks released to continue at approximately 0500. The drivers moved to a rest area for the requisite rest period and all responders departed.

SUMMARY

No radioactive contamination was found on the road or the truck, and the trucks were released to continue on to their original destination after action was taken to dry the liquid in the drum.

OTHER ACTIONS TAKEN

Shortly after the receipt of the notification of the event, SFC administratively stopped the future shipment of yellowcake pending assessment and resolution of the event. At a subsequent meeting of SFC personnel involved with the packaging, inspection and shipping of yellowcake, it was determined that the seal ring would be pneumatically tightened on every drum shipped prior to placing it in the trailer.