MAR 0 3 1980

SGPL:CRH 70-687

Union Carbide Corporation ATTN: Mr. H. C. Hart Medical Products Division P.O. Box 324 Tuxedo, New York 10987

1.

Gentlemen:

This is in regard to your request for approval of a route to be used for transport of spent reactor fuel as contained in your letter of November 29, 1979.

We have determined that the "Primary Spent Fuel Routing" as submitted with your November 29, 1979 letter passes through urbanized areas and thus does not meet the requirements of 10 CFR Part 73.37(a)(3). Accordingly, in view of the existence of an acceptable alternative route, the use of this route is disapproved.

The "Alternate Route Spent Fuel Routing" also submitted with your November 29, 1979 letter is judged to meet the regulatory requirements in accordance with 10 CFR Part 73.37 and accordingly is approved.

Please note that assuring highway safety is the responsibility of the licensee and carrier and our approval is not intended to provide relief in this regard. Furthermore, the approval does not guarantee that there will be no local or state legislation applicable to the route that restricts or prohibits the movement of radioactive material.

During the winter months when inclement weather with accompanying hazardous road conditions can occur with short notice, the appropriate state police should be contacted with regard to road conditions before a shipment commences.

The initial arrangements with law enforcement agencies along the route, as required by 10 CFR Part 73.37(a)(2), have been completed by the NRC staff. Data relating to these arrangements and a copy of the approved route are enclosed. This information is to be incorporated into your shipment plan and provided to your carrier along with instructions regarding its use.

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C FORM 318 (9-76) NRCM 0240

TU.S. GOVERNMENT PRINTING OFFICE: 1978 - 268 - 769

MAR 0 3 1980

Please note that the notification requirements of 10 CFR Part 73.72 for each individual shipment still apply.

Since the attachments to your letter of November 29, 1979 contain information of a type specified in 10 CFR Part 2.790(d), it is deemed to be commercial or financial information within the meaning of 10 CFR Part 9.5(a)(4) and shall be subject to disclosure only in accordance with the provisions of 10 CFR Part 9.12. For the same reason, the enclosure to this letter is being withheld.

Sincerely,

Original signed by D. J. Kasun

George W. McCorkle, Chief Physical Security Licensing Branch Division of Safeguards, NMSS

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•	Enclosure: As stated	· · ·		,		
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NRC FORM 318 (9-76) NRCM 0240

U.S. GOVERNMENT PRINTING OFFICE: 1978 - 265 - 769

Contains 10 CFR 2.790 (d) Information



SPENT FUEL ROUTE SURVEY

TUXEDO, NEW YORK

TO

SAVANNAH RIVER, SOUTH CAROLINA

FEBRUARY 1980

SUMMARY OF LLEA RESPONSE CAPABILITIES - NEW YORK

Troop F New York State Police has the primary law enforcement responsibility over the 53 miles of the route within New York. They have a task force designated to cover NY 17/I-84. Therefore, expect a response time of 5-10 minutes anytime of the day.

CB communications are fair on this segment of the route. The NYSP monitor CB radio intermittently at Middletown and approximately 50% of the troopers equip their patrol cars with personal CB sets. If mobile telephone (MT) is not accessible, any emergency calls should be made on Channel 19.

MT communications were marginal for the first 40 miles of the route and then a dead zone was experienced near the Pennsylvania State line.

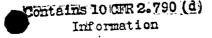
-1-

SUMMARY OF LLEA RESPONSE CAPABILITIES - PENNSYLVANIA

The Pennsylvania State Police (PSP) have the primary law enforcement responsibility for the 255 miles of the route within Pennsylvania. Troop R covers the first 42 miles which is in Pike and Wayne Counties. Expect a response time in this segment of approximately 10-15 minutes during normal duty hours and 20-30 minutes during the graveyard shift. Troop S has jurisdiction over the remaining 213 miles of the route within Pennsylvania. The response time along I-380 and westward along I-80 up to Exit 41 should be 5-10 minutes. For the remainder of I-80 and I-81 within Pennsylvania, expect an average response time of 10-15 minutes prior to midnight and 20-30 minutes during the graveyard shift.

Mobile telephone communications were erratic on the I-84 segment of the route in eastern Pennsylvania. MT communications were effective from the Dunmore area, approximately at the I-84/I-380 intersection, to eastern Schuykill County. Then MT coverage was marginal until the Harrisburg area. From Harrisburg south to the Martinsburg, WV area, there was continuous MT coverage.

CB communications in Pennsylvania range from fair to poor. The PSP do not monitor CB radio at base stations and only a few troopers equip their patrol cars with personal CB sets. In the event MT is not accessible, any emergency calls should be made on Channel 19.



SUMMARY OF LLEA RESPONSE CAPABILITIES - MARYLAND/WEST VIRGINIA

MARYLAND

Response times for the twelve miles of I-81 which transits Maryland should be excellent. The Maryland State Police have one or more cars dedicated to the patrol of this sector and thus a response time of ten minutes is realistic.

Mobile telephone coverage is excellent between PA and WV until you are southwest of Martinsburg, WV. We did make some marginal contact with Hagerstown and Winchester in this area, but fading in and out reduces its reliability as a means of communications. This marginal reception area runs from approximately 5 miles south of Martinsburg to ten miles southwest of Winchester, VA.

CB coverage is adequate with the majority of the State Police cars monitoring channel 19.

WEST VIRGINIA

Response times for the twenty seven miles in WV should average around ten minutes until midnight. At that time the patrol is on standby call and response times will increase to fifteen to thirty minutes. The West Virginia State Police will normally have at least one car assigned to this section of the interstate.

Mobile telephone coverage is as described above.

CB coverage is marginal except for an active REACT group in the Martinsburg area.

-3-Contains 10 CFR 2.790 (0) Information

SUMMARY OF LLEA RESPONSE CAPABILITIES - VIRGINIA

Patrol coverage along the 334 mile portion of Interstate 81 which traverses Virginia, when supplemented by the Pulaski, Montgomery, and Shenandoah County Sheriff Departments, is considered to be excellent. Average response time along the entire route, in spite of the fact that overall manpower total of the Virginia State Police is low, is considered good and should fall within a ten to fifteen minute time frame. MT coverage is excellent throughout Virginia with the exception of those portions along I-81 which lie between Abingdon and Marion and between Strasburg and Martinsburg, West Virginia. Within these areas, coverage is considered to be marginal. State Police and County Sheriff vehicles contain CB radios and most monitor channel 19. There are active REACT groups in New River, Roanoke, Woodstock, and Winchester "which monitor CB channel 9 and work closely with law enforcement officials. Emergency calls will also draw a response from State Police located at the weigh stations in Salem and Winchester. Some State Police cars have an automatic override for channel 9 communications.

Contains 10 CFR 2.790 (d) Information

SUMMARY OF LLEA RESPONSE CAPABILITIES - TENNESSEE

State Police coverage along the 103 mile sector is adequate when supplemented by the Cocke and Hamblen Counties Sheriff's Departments. The entire route is the prime responsibility of the State Police unit located at Kingsport, TN and thus some additional coverage is necessary to provide communication links. Consequently, the Sheriffs of Cocke and Hamblen Counties (Newport and Morristown respectively) were contacted to augment the thin coverage. Expect a response time of fifteen minutes while in Tennessee.

Mobile telephone is good until contact is lost with Morristown. Approximately 80 miles of the 103 miles has useable coverage.

CB coverage is also good with base stations at Kingsport and Newport. There are active REACT groups in all three LLEA areas.

-5-

SUMMARY OF LLEA RESPONSE CAPABILITIES - NORTH CAROLINA

The eighty-nine mile route through North Carolina is well covered during duty hours with an average of two patrol cars assigned to each of the four counties traversed in the state. Response times are estimated to average from ten to a maximum of fifteen minutes during duty hours. After midnight on the weekends, however, state troopers are on-call, so plan on an additional thirty minutes in case LEA assistance is required during this time period.

Mobile telephone coverage in North Carolina is quite poor. Although there is a mobile telephone operator located in Asheville, repeated attempts to contact the station there were unsuccessful.

State patrol vehicles monitor CB radio on channel 9, however, none of the patrol substations contain a base station. This situation is ameliorated somewhat by the fact that local REACT groups work closely with the state patrol throughout the area.

Contains 10 CFR 2.790 (d) Luformation

-6-



SUMMARY OF LLEA RESPONSE CAPABILITIES - SOUTH CAROLINA

As in Tennessee, the South Carolina Highway Patrol coverage of the route is acceptable when supplemented by local county Sheriff Departments, particularly those in Spartanburg, Greenwood, Edgefield, and Aiken Counties. Response times should average fifteen to twenty minutes for both patrol and sheriff department vehicles during the 7-3 and 3-11 shifts. From llpm to 7am the following morning, the highway patrol is on-call so primary reliance will have to be placed upon the appropriate county sheriff's department. Also, a fifteen to twenty minute increase in response time should be anticipated.

Mobile telephone coverage is fair. There are operators located at Spartanburg, Greenwood, Willeston, and Augusta, however, reception was good only around Spartanburg and Greenwood. As the Savannah River facility is neared, erratic reception is available from the station at Willeston. There was no reception from or access to the station in Augusta.

The Highway Patrol monitors CB radio channel 9 at its stations in Spartanburg and Greenwood and all patrol cars have a CB radio scan capability with a channel 9 override feature. In addition, the Spartanburg, Edgefield, and Aiken County Sheriff's Departments all have vehicles containing CB radios which monitor channel 19. This monitoring capability is supplemented by REACT groups which assist the LLEA in Spartanburg, Greenwood and Edgefield Counties.

-7-

SAFE HAVENS (SH)/FOOD AND FUEL (FF) AND OTHER INFORMATION

Lontains 10 CFR 2.790 (d

- NOTE: 1) The listed safe havens were identified by local law enforcement agencies or the NRC route survey teams. For purposes of spent fuel route planning, the NRC survey teams use the term "safe haven," to designate an area that is known to local law enforcement agencies and can be easily found and entered by an enroute shipment crew. Other characteristics considering in identifying these areas are: the amount of parking and lighting available, the proximity the law enforcement agencies, and accessibility of communications.
 - Food and fuel stops listed are close to the route, easily identified and offer basic truck services. If designated also as a safe haven, they are so indicated in the listing.

NEW YORK

- Oxford Depot. Located 5 miles north of Intersection NY 210/NY 17, off right hand side of NY 17. (SH)
- Port Jervis Mountain Truck Stop. Located 3 miles west of Exit 131 of I-84 on Mountain Road. (FF/SH)

PENNSYLVANIA

- Twin Rocks Truck Stop. Located off I-84 Exit 5 Wayne County, right hand side. (FF/SH)
- 2. TTMA Plaza 81. I-81 Exit 31 at mile marker 100. (FF)
- 3. Truck Stops of America. I-81 Exit 27 at mile marker 78. 6 miles from PA State Police Headquarters at I-81 Exit 24 Harrisburg. (FF/SH)
- 4. C Earl Brown, Inc. Located at I-81 Exit 5 Chambersburg at mile marker 14. Emergency Truck Service - no food, very close to PA State Police Substation. (SH)

MARYLAND

 C Earl Brown, Inc. Exit 5 (mile marker 5). Emergency Truck Service -4 miles from MD State Police (Exit 4 east to Hagerstown). (SH) Contains 10 CFR 2.790 (d)

2. Exit 4. MD State Police Substation. (SH)

WEST VIRGINIA

- 1. Rest area with telephone and full facilities at State line. (SH)
- 2. Exit 20. Union 76 Truck Stop. 5 miles from West Virginia State Police Substation (Exit 16). (FF/SH)
- 3. State Police/North Martinsburg. Exit 16E on Route 9. Located one half mile from Exit 16E on right side of highway. After midnight, troopers are on-call duty.

VIRGINIA

- Rest area with telephone and full facilities. 1 mile south of Exit 83.
- 2. Truck Weigh Station. Located 1.5 miles north of Exit 77 at mile marker 304. Manned 24 hours per day by trooper. 6 miles south of Kernstown Substation.
- 3. The Virginia Truck Center. Exit 73 Toms Brook. (FF)
- 4. Exit 64E. Interstate Shell Service Center. (FF)
- 5. State Police/Staunton. Exit 57 West on Route 250. Located 3/10 mile from Exit 57. (SH)
- 6. Rest area with telephone and full facilities. Located between Exits 59 and 60. 10 miles from VA State Police at Staunton. (SH)
- 7. Rest area with telephone and full facilities. Located 1.5 miles south of Exit 53A. (SH)
- 8. Truck Weigh Station between Exits 43 and 44. Manned by trooper 24 hours per day. (SH)
- 9. Exit 44. Gulf Truck Stops of America. (FF/SH)
- 10. State Police/Salem. Midway between Exits 39 and 40 on US Route 11. 3 miles north from Exit 39; 3 miles south from Exit 40. (SH)
- 11. VA State Police. Exit 32 to Pulaski on Rt. 100 to Pearisburg. (SH)
- 12. State Police Communications Trailer. Mile marker 76.5. Located on western side of Interstate 81, with crossover available. Manned 24 hours per day. (SH)

-9-

- 13. Exit 22. Intersection of I-7/I-81. Wilderness Road Union 76 Truck Stop. (SH/FF)
- 14. Rest area with telephone and full facilities. Located 1/2 mile south of Exit 18 - mile marker 54. (SH)

TENNESSEE

- Rest area with telephone and full facilities. Located near Tennessee/ Virginia State line. (SH)
- 2. Exit 74B. Pondarosa Truck Stop. (FF)
- 3. Exit 23. Phillips 66 Truck Stop and Restaurant. (FF)
- 4. Exit 15. Amoco Truck Plaza. (FF)
- 5. Exit 4. The Pines Truck Stop/Sunoco Truck Stop. (FF)
- 6. Rest area with telephone and full facilities. Located 1.6 miles south of Exit 4 and close to I-40 junction. (SH)
- 7. Exit 432. 76 Truck Stop and Jack's Diesel Repair. Close to Cocke County Sheriff's Office. (SH/FF)

NORTH CAROLINA

- Welcome/Information Center. Located 11 miles south of State line. Telephone and full facilities. (SH)
- 2. Weigh Station. Located on I-40, 5 miles north of intersection with I-26. (SH)

SOUTH CAROLINA

- 1. Gulf Truck Stop. Located at Exit 22 off of I-26. (FF)
- 2. Sunny's Texaco Truck Stop. Located on 72 bypass at Greenwood. (FF)

<u>ROAD TRANSPORTATION ROUTE</u> - Tuxedo, NY to Savannah River, SC Distance: 1041 miles

1.	Longmeadow Road north to NY Route 210	1/2 mile
2.	NY Route 210 east to NY Route 17.	1.5 miles
3.	NY Route 17 north to I-84.	31 miles
4.	I-84 west to I-380.	71 miles
5.	I-380 south to I-80.	24 miles
6.	I-80 west to I-81.	36 miles
	·	
7.	I-81 south/southwest to I-40.	587 miles
	I-81 south/southwest to I-40. I-40 east/south to I-26.	587 miles 78 miles
8.		
8. 9.	I-40 east/south to I-26. I-26 southeast to SC 72.	78 miles
8. 9. [.] 10.	I-40 east/south to I-26. I-26 southeast to SC 72.	78 miles 96 miles

NOTE: There is a possibility that west bound traffic on I-80 may be detoured between exists 43 and 42 due to construction. If so, they will utilize PA Route 940 for a distance of approximately seven (7) miles.

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		NEW YORK AND EASTERN PENNSYLVANIA	CFR 2.790 (d)
	EMERGENCY PHONE NUMBERS: Area Code: (914) NY (717) PA	¢	mation
	MONROE MIDDLETON SP (914)782-8311 SP (914) F Troop HQ F Troo	343-1424 SP (717)775-	
	K///// MT MARGINAL /////	K MT DEAD ZONE K MT ERRATIC	MT DEAD ZONE
	Comm: MT, CH 19 CH 19	, R MT, СН 19	, R MT, 🗂 CH 19, R
•	LLEA: SP SP	SP	SP
· · · ·	€Monroe ●Middletc		
	*T *2 *3 1032 *4MILES INOrangeJURISDICTION53	*5 74 Pike County 36	,*6 109 Wayne Lackawanna County County 6 21
	TOTAL MILES O	53	89 95 116
	ΚΕΥ	ROAD TRANSPORTATION ROUTE - TUXEDO, NY TO SAVA	NNAH RIVER, SC:
	 LEA Response Center IIP/SP Highway Patrol/State Police S Sheriff CP City Police CB Radic Monitored (Base) CB Radio Monitored (Car) CH/No. Channel Monitored Page Computer 	 *1. Longmeadow Road north to NY Rte 210 (1/2 *2. NY Rte 210 east to NY Rte 17 (1.5 miles); *3. NY Rte 17 north to 1-84 (31 miles); *4. I-84 west to PA State line (20 miles); *5. I-84 west to I-380 (51 miles); *6. I-380 south to Monroe County (12 miles); 	miles);
	R React Group MT Mobile Telephone (Usable)		

Contains 10 CFR 2.790 (d) Information

FEB 80

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PENNSYLVANIA (EASTERN) Contains 10 CFR 2.790 (d)

Information

EMERGENCY PHONE NUMBERS: Area Code: (717)

SWIFTWATER SP (717)839-7701 (S) Troops S and N	HAZLETON SP (717)454-6651 (N) SP (717)874-0207 SP (717)455-9416 (S) Troop L Troops S and N	JONESTOWN HARRISBURG SP (717)865-2194 SP (717)234-4051 Troop L Troop H

Comm:	MT, 🗖 CH 19, R	

LLEA:

SP

MT MARGINAL V11111 MT, R MT, R SP SP SP SP

@Swif	ftwater (Off Rout	e)	oHazlet	ton	•Frackville	J.●	onestown	•Harrisburg
*/	*8	1	*9 168	1	189	22	3 1	242
1	Monroe	Carbon	Luzerne	4 1	Schuylkill	Lebano	n I Daupi	hin L
MILES IN	County	County	County		County	Count	y I Coun	ty I
JURISDICTION	23	10	24		41	13	16	
i	- -			1		1		i
TOTAL	•			ľ				1
MILES 116		139 149		173		214	227	243

KEY

LEA Response Center 3 Highway Patrol/State Police HP/SP Sheriff S CP City Police CB Radio Monitored (Base) A ASSAU CB Radio Monitored (Car) CH7No. Channel Monitored React Group R Mobile Telephone (Usable) MT

ROAD TRANSPORTATION ROUTE - TUXEDO, NY TO SAVANNAH RIVER, SC:

*7. I-330 south to I-80 (12 miles); *8. I-80 west to I-81 (36 miles);

*9. I-81 south to Cumberland County (79 miles);

-13-

FEB 80

Contains 10 CFR 2.790 (d)

Information

Sugars 10 CTR 2.790 (d) PENNSYLVANIA (CENTRAL), MARYLAND, WEST VIRGINIA

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Information

EMERGENCY PHONE NUMBERS: Area Code: (717) PA (301) MD (304) WV

	CARLISLE SP (717)249-2121 Troop S	CHAMBERSBURG SP (717)264-5161 Troop S	HAGERSTOWN SP (301)739- Troop C	2101 MARTINSBURG SP (304)267-8901
Comm:	МТ	MT, R	MT, CH 19, R	MT, 🗖 CH 19
LLEA:	SP	SP	SP	SP

	•Carlisle	PA @Chambersbu	1 1	e Martinsburg	VA
MILES IN JURISDICTION	261 Cumberland County 40	294 Franklin County 25	313 Washington County 12	329 Berkeley County 25	
TOTAL MILES 243		283	308 320		345

KEY

ROAD TRANSPORTATION ROUTE - TUXEDO, NY TO SAVANNAH RIVER, SC:

*10. I-81 southwest to Virginia State line (102 miles);

LEA Response Center Highway Patrol/State Police 8 HP/SP Sheriff S CP City Police CB Radio Monitored (Base) CB Radio Monitored (Car) UII7No. Channel Monitored React Group R

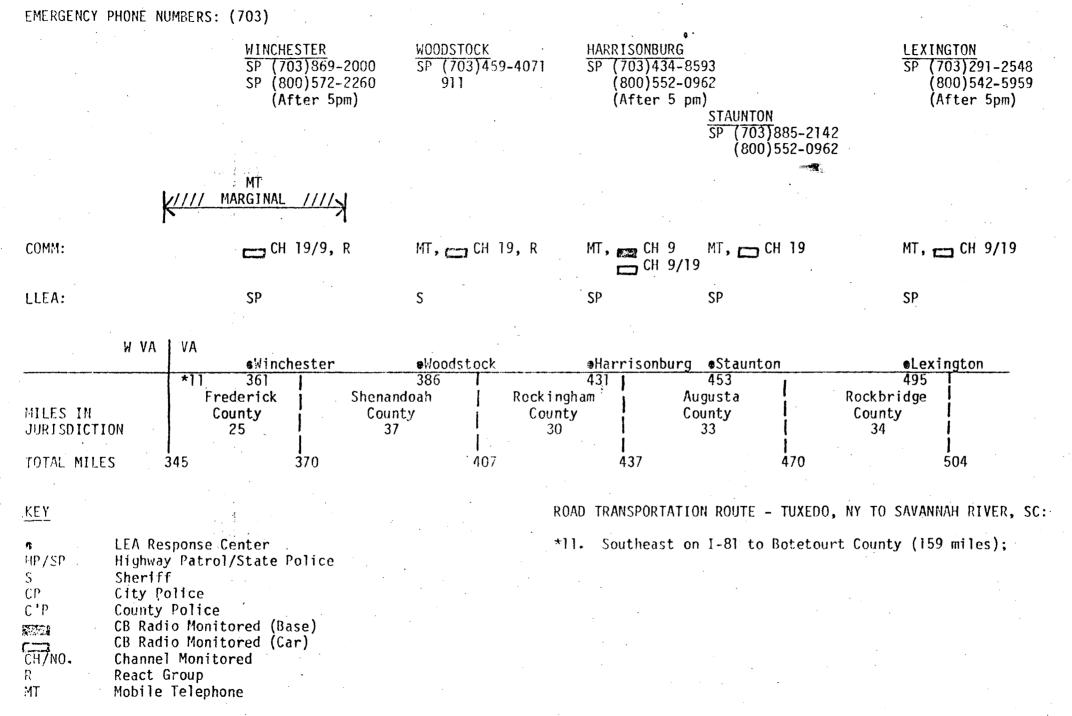
MT Mobile Telephone (Usable)

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-14-

Contains 10 OFR 2.790 (d) Information

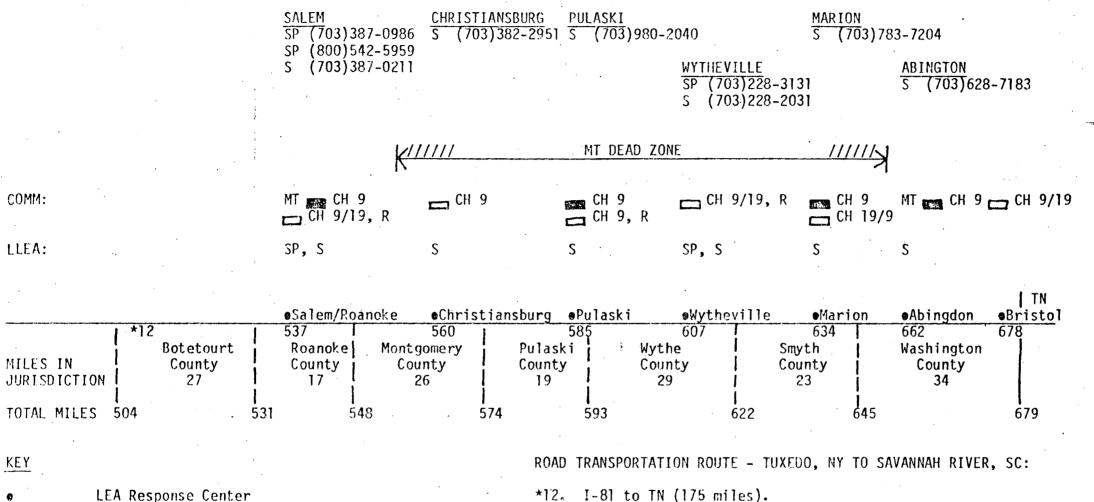
VIRGINIA (NORTHERN HALF)



-15-

VIRGINIA (SOUTHERN HALF)

EMERGENCY PHONE NUMBERS: (703)



. 🖗	LEA Response Center
HP/SP	Highway Patrol/State Police
5	Sheriff
CP .	City Police
С'Р.	County Police
	CB Radio Monitored (Base)
	CB Radio Monitored (Car)
CH/NO.	Channel Monitored
R	React Group
MT	Mobile Telephone

FEB 80

TENNESSEE

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EMERGENCY PHONE NUMBERS: (615)

COMM:

LLEA:

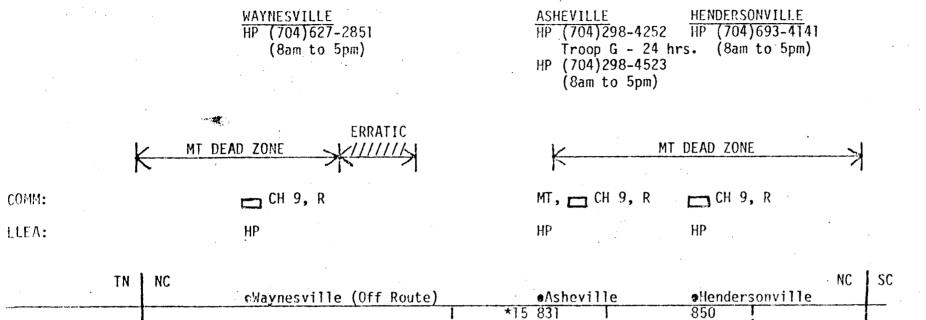
<u>KINGSPORT</u> SP (615)246-4161	MORRISTOWN CP (615)586-1213 S (615)586-3781 NEWPORT S (615)586-3781
	K MT DEAD ZONE
MT, 🚌 CH 9/19 👝 CH 9/19, R	MT,CH 19, RCH 9/19,CH 19, R
SP	CP, S S

· · · · · · · · · · · · · · · · · · ·	/A TN Bristol	sK	ingsport (Off Route)		orristown f Route)	●Newport		NC
MILES IN JURISDICTIO	*13 DN	Sullivan,	Washington, Greene, Counties 81	Hamblen and Jeffersor	*14	1	Cocke County 22	
TOTAL MILES	679					760		782
KEY				ROAD TRANSPORTAT	ION ROUTE	- TUXEDO, NY	TO SAVANNAH	RIVER, S
S CP	LEA Response Cent Highway Patrol/St Sheriff City Police			*13. Southwest *14. East/South				1
CH/::0.	County Police CB Radio Monitore CB Radió Monitore Channel Monitored	d (Car)			·		•	• .
	React Group Mobile Telephone	•	· · · · · ·	· · · ·	-			

-17-

NORTH CAROLINA

EMERGENCY PHONE NUMBERS: (704) NC



MILES IN JURISDICTION		Haywood County 38		*15 831 Buncombe County 19	Henderson County 18	Polk County .14	
TOTAL MILES	782		820		839	857 -	871

KEY

ROAD TRANSPORTATION ROUTE - TUXEDO, NY TO SAVANNAH RIVER, SC:

*15. Southeast on I-26 to SC Border (42 miles).

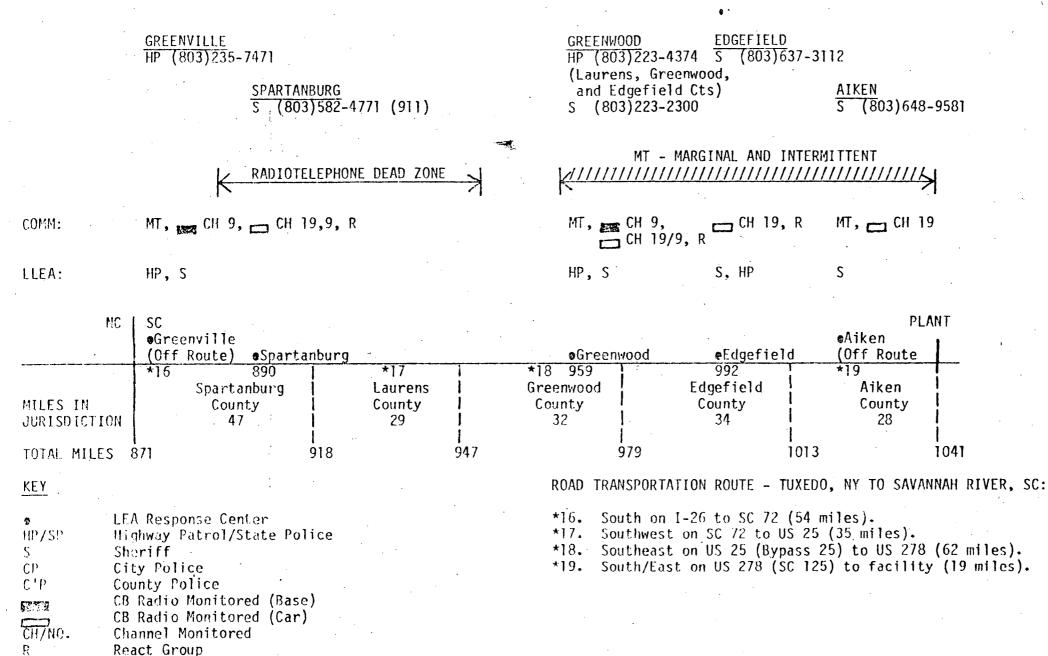
Q)	LEA Response Center			
HP/SP	Highway Patrol/State Police			
S	Sheriff			
CP	City Police			
C'P	County Police			
61 T 22	CB Radio Monitored (Base)			
	CB Radio Monitored (Car)			
CH/NO.	Channel Monitored			
R	React Group			
HT	Mobile Telephone			

SOUTH CAROLINA

EMERGENCY PHONE NUMBERS: (803) SC

Mobile Telephone

MT



-19-