

## TRANSPORTATION WORKING GROUP MEETING MINUTES

Thursday, March 8, 2001 – 1:30 – 4:30 p.m.

University of Nevada at Las Vegas

Richard Tam Alumni Center – Marietta Tiberti Grand Hall

### WELCOME & INTRODUCTIONS – Rex Massey & Frank DiSanza

Rex Massey, Chairperson, welcomed all attendees to the meeting, expressed his appreciation to Earle Dixon and UNLV for their generosity in hosting the meeting and providing refreshments. Attendees then introduced themselves and provided their affiliation. (See enclosure 1)

Additional enclosures are listed for your convenience.

Enclosure 1	Attendance List
Enclosure 2	Agenda
Enclosure 3	FY2001 First Quarter Waste Routing Report
Enclosure 4	FY01 Cumulative Waste Forecast vs. Cumulative Waste Received
Enclosure 5	FY2001 Status Report as of 03/04/01
Enclosure 6	Briefing: Envirocare of Utah-License Update
Enclosure 7	Briefing: Transportation Protocols Update
Enclosure 8	Briefing: County Grant Assistance Program
Enclosure 9	Directions to DOE Nevada Support Facility
Enclosure 10	DOE/NV—688 Annual Report-FY2001, Radioactive Waste Shipments To and From The Nevada Test Site (NTS)

Rex Massey reviewed the agenda (See enclosure 2) and Frank Disanza began his remarks by reflecting briefly upon the contribution of the late Kathleen Grassmeier to the Transportation Working Group. The Group then observed a moment of silence in tribute to Ms. Grassmeier.

Mr. DiSanza briefly discussed the FY 2001 First Quarter Waste Routing Report detailing low-level radioactive waste shipments to the Nevada Test Site (See enclosure 3). The report provides the generator name, waste volume, number of shipments and routes taken for inbound Low Level Waste (LLW) shipments. Dennis Bechtel, Clark County, requested that future reports be more specific with information detailing routes taken. The current and past quarter reports in some cases combine numbers for multiple routes taken for shipments.

**ACTION ITEM: Mr. DiSanza appreciated the input and indicated that future reports would state the specific route.**

Mr. DiSanza also provided information that indicated that the FY 2001 waste forecast is proving to be surprisingly accurate with shipments received to date (see enclosure 4). If the current trend continues, it is anticipated that ~\$500,000 will be available to the state for grants to the six counties for use in emergency planning/response activities. The six counties are Clark, Elko, Esmeralda, Lincoln, Nye, and White Pine. (See enclosure 5).

Mr. DiSanza also provided an update on shipment(s) that went through the transportation corridor known as the Las Vegas “Spaghetti Bowl.” The majority of shipments originated at the Rocky Flats Environmental Technology Site (RFETS). RFETS has since changed motor carriers and has instituted new measures to correct this issue. RFETS now utilizes CAST Transportation, Inc. for their shipments. E-mails have been sent to all waste generators stating that if shipments were transported across Hoover Dam or through the Spaghetti Bowl, acceptance of their shipments would be suspended until a corrective action procedure was put in place.

In response to a request made at the November 16, 2000 Transportation Working Group, Mr. DiSanza invited a speaker from Envirocare of Utah to update the group on its operations. Mr. DiSanza introduced and welcomed Ms. Susan Rice, Vice President, Business Development for Envirocare of Utah.

#### ENVIROCARE OF UTAH PRESENTATION/DISCUSSION – Susan Rice

Sue Rice from Envirocare presented a detailed briefing on her company and its services. (See enclosure 6) A group question and answer period followed.

Discussion included:

- General rate structure and the policy of combining DOE shipments to offer reduced rates to DOE generators.
- The impact of a waste tax on class B and C waste which will be passed along to customers. Existing contracts will not be affected.
- No monies have been removed from the closure/post closure fund.

#### TRANSPORTATION PROTOCOLS UPDATE – Lee Stevens/PAI

Progress is being made to finalize the transportation protocols. The Transportation External Coordination Working Group (TEC) met in February 2001 to review and comment on the protocols. It is anticipated that the protocols will be formally submitted by April 2001 and will be institutionalized in the DOE Directives system. The protocols will likely become part of DOE Order 460.2 entitled “Departmental Materials Transportation and Packaging Management.” The final document will be available at the TEC meeting in July 2001. Upon release of the document, any public comments received will be accepted and resolved through TEC in 2002, if required. (See enclosure 7)

Two meeting attendees were interested in receiving copies of the minutes and protocols.

**ACTION ITEM: Susie Snyder and Kalynda Tilges requested that printed copies of the minutes and protocols be mailed to them.**

**ACTION ITEM: In response, Mr. Disanza said that he is investigating the possibility of placing the protocols and minutes on the DOE web site, and the State of Nevada also offered to publish the materials on their web site.**

ENVIRONMENTAL IMPACT STATEMENT UPDATE – Deb Howard,  
DOE/NV

Ms Howard stated that has been approximately five years since the NTS EIS was completed at a cost of approximately \$12 million. DOE has a policy to review programmatic and site-wide impact statements on a 5-year basis through the supplement analysis process. This is done in hopes of extending the life of the initial investment.

Presently the project is scheduled to start sometime in August. To date some of the activities identified during the internal scoping process include:

Defense Programs; Alternative uses for Device Assembly Facility (DAF)

Waste Management; Waste types and quantities

Infrastructure; New Site Development Plan

Nye County filing for water-rights on the NTS

Ms Howard defined some of the steps of the supplement analysis process to include public information meetings, draft document to the public, followed by final document including comment response document.

Questions raised included:

- Q. Is part of Area 25 being given to the YMP?
  - A. Ultimate responsibility for long-term stewardship has not yet been assigned.
- Q. What is the role of National Nuclear Security Administration (NNSA) in the Environmental Impact Statement?
  - A. NTS is a NNSA facility and the EIS will be a NNSA document.

Mr. John Walker indicated that DOE was going to follow its process of a supplement analysis to assist the decision makers in the best path forward Mr. Walker went on to state that this would be an opportunity for DOE to disclose what is happening at the NTS (as status of Environmental Restoration Program, UGTA, etc.)

**ACTION ITEM: Mr. Earle Dixon requested Ms. Deb Howard to provide information on water rights at the NTS.**

## NTS WIPP SHIPMENT SCHEDULE – Angela Colarusso, DOE/NV

Transuranic waste shipments are currently scheduled to begin shipment to the Waste Isolation Pilot Plant (WIPP) in November 2001. The Nevada Test Site is working with the Carlsbad DOE office to refine the schedule. The first shipment “corridor” will be comprised of 32 total shipments: 1 shipment in November, 2 in December, 3 in January, and 4 per month from February through August 2001. Prior to shipping, WIPP officials will conduct an NTS site audit. This audit is not scheduled until the end of July, with a potential 1 to 2 week delay. The second shipping corridor will be open in 2005, and the final shipping corridor will commence in 2009. Transport vehicles will be operated by a contracted carrier and efforts are now underway to train emergency responders along the route.

## EMERGENCY MANAGEMENT – Milton Chilton, DOE/NV

Mr. Chilton reported on the County Grant Assistance Program. Currently DOE/NV provides for equipment loans to surrounding counties and provides radiological calibration support. Counties submit requests and justifications for equipment, which is required to be submitted no later than March 15. Final decisions on successful bidders are made by March 30. This year, the decision was made to allow Southern Inyo County in California to be a part of the process for loan eligibility. Due to severe funding constraints in Inyo County, the county’s emergency response activities may be suspended. Since LLW shipments currently travel part of CA-127 through Southern Inyo County, it was determined that assistance would be provided through the normal loan process. Plans are underway now for the FY2002 budget. (See enclosure 8)

## TRACKING SYSTEM VALIDATION – John Sattler, DOE Fernald Area Office

Fernald has designed and initiated a program designed to address validation of the routes used by their drivers. A packet of information is provided to each driver transporting LLW to the NTS. Representatives meet with the carrier to explain the procedures and importance of driving on designated routes only. Since 1999 Fernald has required all drivers hauling nuclear materials to have a QualComm tracking system installed, which is a satellite tracking system similar to the system used by trucks carrying materials to the WIPP site. Data messages are transferred from customer fleet management to QualComm’s Network Management Center (NMC) via landline, then sent to the vehicle via the communications satellite. The vehicle uses the communications satellite to send messages to the NMC, where the message, as well as the vehicle’s location, is then forwarded to customer fleet management. The Fernald site randomly selects one shipment per month for verification. The QualComm data is retrieved, and staff carefully analyze the information to verify geographic locations. In addition, Fernald’s traffic department independently tracks routes to determine if drivers have deviated from the agreed upon route.

## NEW BUSINESS

A member of the Moapa Paiute tribe, Calvin Meyers, stated that no information has been shared with the tribe regarding emergency planning, equipment loans, or training. He added that this is another instance of the tribe being ignored. Mr. DiSanza responded that in 1995 face-to-face meetings were in fact conducted with the tribal council. Subsequent feedback from the tribes indicated that DOE/NV should continue to work with the Consolidated Group of Tribes and Organization. Although no shipping routes currently traverse the Moapa reservation, Mr. DiSanza offered to again meet with tribal members to provide an update.

Rex Massey stated that the charter rework, purpose, needs, functions, and responsibilities document has not reached Frank Disanza for review, yet.

**ACTION ITEM: Mr. Massey stated that he request that Fred Dilger forward group charter information to Mr. Disanza, and the information should be provided in the minutes of the meeting.**

## ADMINISTRATION AND NEXT MEETING

The next meeting will be held from 1:30 – 4:30 p.m. on Thursday, June 14, 2001. The meeting location shall be:

Department Of Energy Nevada Operations Office  
Nevada Support Facility  
232 Energy Way  
North Las Vegas, NV 89030

A map will accompany the minutes (See enclosure 9)

Proposed Agenda Items:

- DRI Transportation Study
- Transportation Protocols Update
- National Environmental Policy Act Issues Update
- TRU Waste Status Report on Oversized Boxes
- WIPP Emergency Response Training Exercise Update

The meeting was adjourned at 4:30 p.m.

**Note:** DOE/NV –688 *Annual Report- FY2000 Radioactive Waste Shipments To and From The Nevada Test Site (NTS)* has been included with the meeting minutes. (See enclosure 10)

## SUMMARY OF ACTION ITEMS

Mr. DiSanza will ensure that Quarterly Routing Reports will provide information on the specific route taken. Completed 4/1/2001.

Mr. Disanza will investigate the possibility of putting the protocols and minutes on the DOE web site.

Mr. Disanza will provide Ms. Susie Snyder and Ms. Kalynda Tilges with printed copies of the meeting minutes for 3/8/2001, and the protocols.

Ms. Deb Howard will provide information on water rights at the NTS to Mr. Earle Dixon. Completed 4/8/2001.

Mr. Massey will request Mr. Fred Dilger forward the charter rework, purpose, needs, functions, and responsibilities document to Mr. Disanza for his review. Completed 3/27/2001.

Mr. Disanza will ensure that charter rework, purpose, needs, functions, and responsibilities documentation be provided as part of the minutes of the meeting.

TRANSPORTATION WORKING GROUP ATTENDEES LIST  
3/8/2001 MEETING

Mike Alexander Department of Emergency Management	Dennis A. Bechtel Clark County Government Center
Chris Binzer Robison/Seidler, Inc.	Milton W. Chilton DOE/NV EMD
E. Frank Di Sanza DOE/NV WMD	Earle Dixon Greenspun College of Urban Affairs and Environmental Studies
Bryan Elkins, Director Community Development	Larry M. Franks Radiological Health Section, State of Nevada
Thomas Fronapfel Nevada Department of Transportation	Deborah Howard DOE/NV
Cash Jaszczak DOE/YMSCO/MTS	Marian Lawrence
William B. Mackie NM Energy, Mineral, and Natural Resources	Rex Massey RMA Research
Jim Pegues, Manager International Affairs, City of Las Vegas	Pat Lofft-Petersen Emergency Management
Sue Rice Envirocare of Utah, Inc.	Ron Ross Western Governor's Association
Carla Sanda IT Corporation	John M. Sattler DOE Fernald Area Office
Susi Snyder	Lee J. Stevens PAI/WMD
Carrie Stewart SAIC	Kalynda Tilges Citizens Alert
Andy Vliet SAIC	John B. Walker Nevada Division of Environmental Protection

Transportation Working Group  
University Of Nevada at Las Vegas  
Richard Tam Alumni Center  
Marietta Tiberti Grand Hall  
Thursday March 8, 2001  
1:30- 4:30 PM

AGENDA

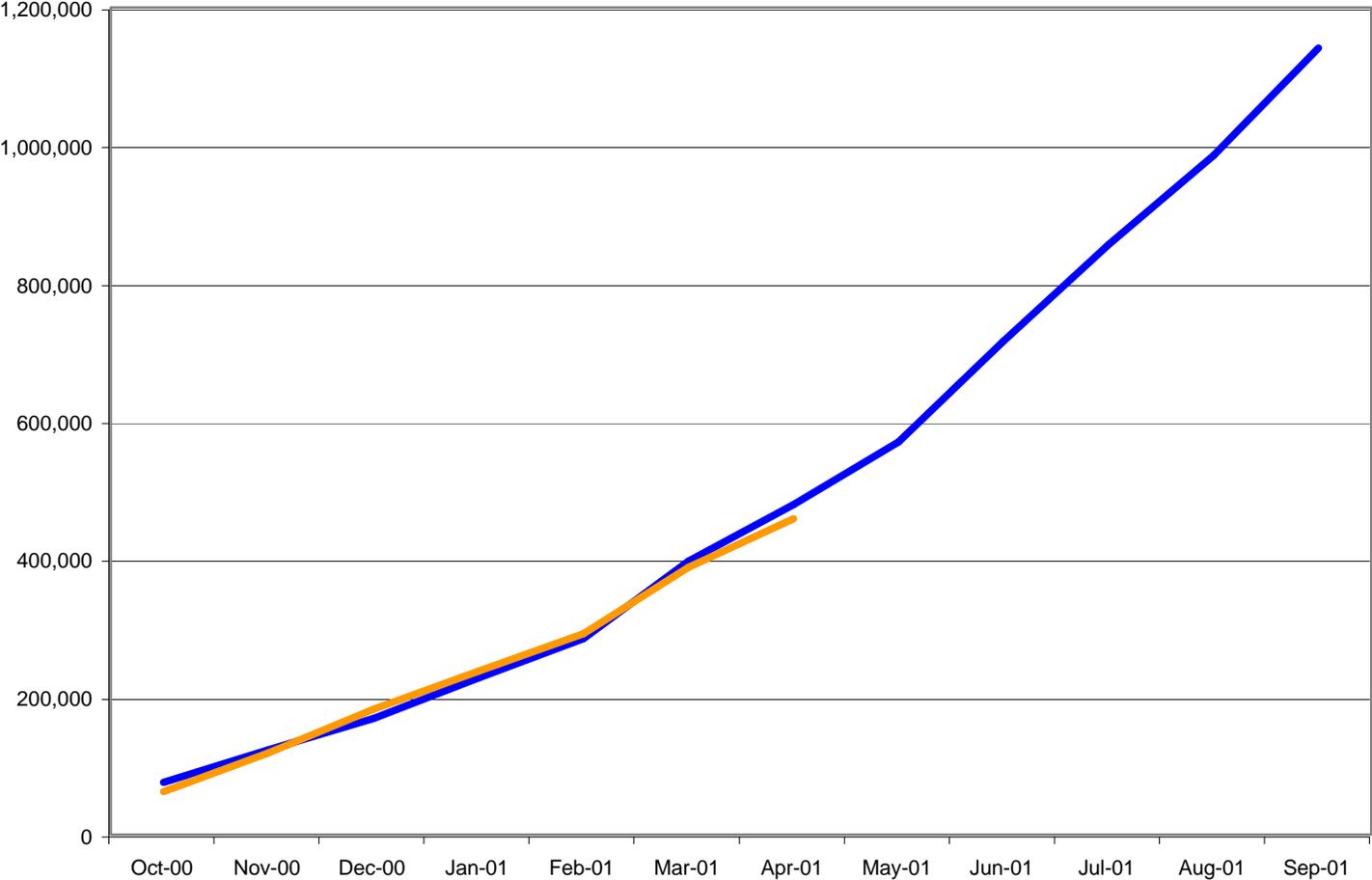
1:30 PM	Welcome and Introductions	Rex Massey / Frank Dianza
1:40	Envirocare Presentation/Discussion	Susan Rice
2:45	Break	
3:00	Transportation Protocols Update	Lee Stevens
3:15	EIS Update	Deb Howard
3:30	NTS WI PP Shipment Schedule	Angela Colarusso
3:45	Emergency Management	Milton Chilton
4:00	New Business	Rex Massey
4:20	Administration and Next Meeting	Rex Massey
4:30	Adjourn Meeting	Rex Massey

Low-Level Radioactive Waste Shipments to the Nevada Test Site  
First Quarter Report, FY 2001 (Oct to Dec, 2000)

GENERATOR	VOLUME (ft <sup>3</sup> )	SHIPMENTS	ROUTES
FERMCO (OH)	28700	29	Southern Route (I-15, CA-127, NV-373, NV-160, US-95) or Southern Route (I-40, US-95, NV-164, I-15, NV-160, US-95)
		1	Northern Route (I-80, US-93, US-6, US-95)
General Atomics (CA)	7340	15	Southern Route (I-40, US-95, NV-164, I-15, NV-160, US-95) or Southern Route (I-15, CA-127, NV-373, US-95)
Lawrence Livermore National Lab (CA)	9170	1	Northern Route (I-580, I-205, CA-99, CA-58, I-15, US-95) thru Las Vegas Spaghetti Bowl
		6	Southern Route (I-15, CA-127, NV-373, US-95)
Lovelace Lab (NM)	0	0	
Mound (OH)	18600	2	Northern Route (I-80, US-93, US-6, US -95)
		1	Southern Route (I-40, US-93, US-95) Hoover Dam and Spaghetti Bowl
		8	Southern Route (I-40, US-95, NV-164, I-15, CA-127, NV-373, US-95) or Southern Route (I-40, US-95, NV-164, I-15, NV-160, US-95)
Pantex (TX)	0	0	
Boeing-Rocketdyne (CA)	1130	1	Southern Route (I-15, CA-127, NV-373, US-95)
RMI- Earthline	1160	1	Las Vegas Route (I-80, I-15, US-93, US-95) thru Las Vegas Spaghetti Bowl
		1	Southern Route (I-40, US-95, NV-164, I-15, NV-160, US-95)
Rocky Flats (CO)	109000	13	Southern Route (I-40, US-95, NV-164, I-15, NV-160, US-95)
		5	Las Vegas Route (I-15, US-95) thru Las Vegas Spaghetti Bowl
		46	Northern Route (I-80, US-93, US-6, US -95)
Sandia National Lab (CA)	0	0	
Sandia National Lab (NM)	1730	4	Southern Route (I-40, US-95, I-515, NV-146, I-15, NV-160, US-95)
Oak Ridge (TN)		0	
<b>TOTALS</b>	176830	134	

**NOTE:** The routes described above are the core routes used by the motor carriers that haul low-level waste to the Nevada Test Site. On a daily basis, variations of these routes are used by the motor carriers. Six additional shipments of waste are received from on-site generators. Two shipments did not disclose routing.

### FY 01 Cumulative Revised Forecast vs. Cumulative Actuals



— Cumulative Forecast      — Cumulative Actuals

FY 2001 Status Report as of 03/04/01		
Field Office/ Generators	Forecast - ft <sup>3</sup>	Volume Shipped - ft <sup>3</sup>
<b>Albuquerque</b>	<b>14,780</b>	<b>2,764</b>
Honeywell	-	-
Los Alamos	-	-
LRRRI	1,280	-
Pantex	3,400	-
SNL/CA	1,100	-
SNL/NM	9,000	2,764
<b>Chicago</b>	<b>2,008</b>	-
Ames	-	-
Argonne East	-	-
Argonne West	-	-
Brookhaven	2,008	-
Fermi	-	-
Princeton	-	-
<b>DOD</b>	<b>5,000</b>	-
Aberdeen	5,000	-
<b>Gen. Atomics Corp.</b>	<b>19,000</b>	<b>12,194</b>
<b>Idaho</b>	<b>1,950</b>	-
BBWI	1,950	-
<b>Nevada</b>	<b>20,050</b>	<b>5,253</b>
Bechtel NV	18,898	5,037
IT Corp.	1,152	216
<b>Oakland</b>	<b>20,857</b>	<b>12,130</b>
Berkeley	-	-
Boeing Rocketdyne	3,200	1,132
GA - DOE	-	-
LLNL	17,657	10,998
<b>Oak Ridge</b>	<b>414,075</b>	-
Bechtel Jacobs	138,911	-
BNFL	246,864	-
Foster Wheeler	-	-
Paducah	28,300	-
Portsmouth	-	-
Weldon Springs	-	-
<b>Ohio</b>	<b>290,160</b>	<b>98,388</b>
Battelle	12,320	-
Earthline	640	1,160
Fernald	212,000	69,518
Mound	64,500	27,710
West Valley	700	-
<b>Rocky Flats</b>	<b>200,000</b>	<b>173,097</b>
Kaiser Hill	200,000	173,097
<b>Savannah River</b>	<b>20,400</b>	-
Westinghouse	20,400	-
<b>Total</b>	<b>1,008,280</b>	<b>303,826</b>

## ENVIROCARE OF UTAH

### License Update

Presented by:  
Susan Rice  
Vice President  
Business Development  
March 8, 2001



---

---

---

---

---

---

---

---

## ENVIROCARE FACILITY

- 16 Million Cubic Yards Capacity
- 75 Miles West of Salt Lake City
- 100 Square Mile Hazardous Waste Industrial Zone
- 7 Inches Rainfall per Year
- Direct Rail Access into Facility



---

---

---

---

---

---

---

---

## WASTE TYPES

- NORM
- Low Level Waste
- Mixed Waste
- 11e.(2)



---

---

---

---

---

---

---

---

## ENVIROCARE CUSTOMERS

- DOE
- EPA
- DOD (Army, Navy, Air Force)
- Commercial Companies



---

---

---

---

---

---

---

---

## PLANNED CAPABILITIES

- Disposal of All Class A, B & C Low Level Waste
- Disposal of Class A, B & C Mixed Waste
- Truck and Rail Shipments



---

---

---

---

---

---

---

---

## LICENSE UPDATE

### Characterized Class A Waste:

- Received Amended Radioactive Material License October 5, 2001
- Submitted License Amendment to State of Utah for Revised Waste Management Plan, Waste Characterization Plan, Etc.
- Expect License Amendment Approval by May 2001
- Begin Accepting Containerized Class A Waste Shipments



---

---

---

---

---

---

---

---

## LICENSE UPDATE CON'T

### Class B & C Waste:

- Draft License and Safety Evaluation Report Issued January 2001
- Public Comment Ended March 2, 2001
- Legislative/ Gubernational Approval in February/ March 2002
- Begin Operations Late 2002



---

---

---

---

---

---

---

---

## DESIGN AND OPERATIONS

- Containers Emplaced in Soil Backfill
- Class B & C Placed in Overpacks
- Class B & C Segregated
- No Sampling of Removal of Wastes from Containers
- Reliance on Generator Classification



---

---

---

---

---

---

---

---

[www.envirocareutah.com](http://www.envirocareutah.com)

(801) 532-1330



---

---

---

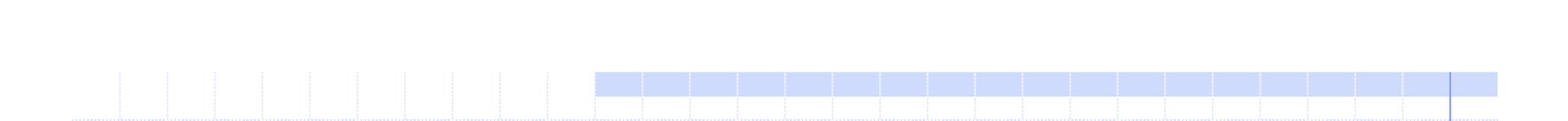
---

---

---

---

---



# Transportation Protocols Update

Transportation Working Group

March 8, 2001

Las Vegas, NV

Presented By: Lee Stevens



# Current Protocol Status

- ◆ TEC met in Portland, OR on February 6-7, 2001
- ◆ Currently resolving TEC comments concerning Introduction
- ◆ No new comments accepted at this time
- ◆ Summary resolution of 600 external comments provided to TEC Topic Group in Portland

# Future Protocol Events

- ◆ Protocols to be institutionalized in the DOE directive system; formal submittal by April, 2001
- ◆ Expect the document to be attached to DOE Order 460.2 "Departmental Materials Transportation and Packaging Management"
- ◆ Document will be available at TEC meeting in July, 2001

# Future Protocol Events

- ◆ Comments from DOE Traffic Managers prior to implementation.
- ◆ Protocol document will be implemented in mid-2001
- ◆ Major comments accepted through TEC and revisions made in 2002, if necessary

# County Grant Assistance Program

Milton Chilton, CHP, RRPT

Presented to TPWG March 8, 2001

# Overview

- County Equipment Loans
- Radiological Calibration Support
- FY 2002 Budget Planning
- Communications Sub Committee

# Equipment Loans

- One Ambulance to go to Lincoln County.
- One Ambulance, Two Step Vans, and Two\* Brush Fire Trucks Available for Loan.
- Counties to provide request and justification by March 15.
- EPWG to determine who receives the equipment by March 30.
- Voted to include Southern Inyo Fire Protection District in equipment loans.

# Calibration Support

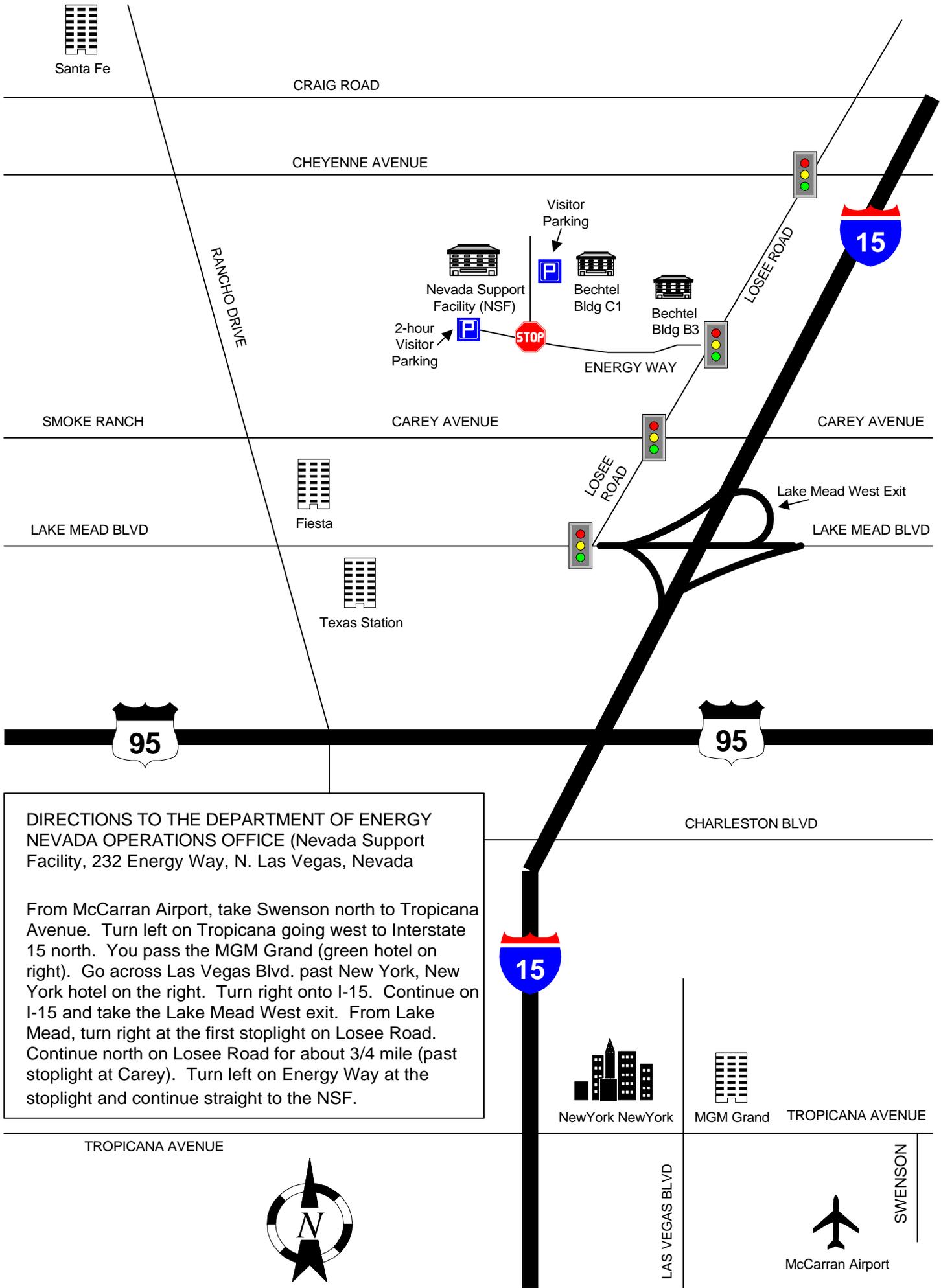
- DOE has funding in place to calibrate and maintain county radiological equipment.
- Counties to provide equipment inventory.
- Bechtel to coordinate scheduling, logistics, and calibration services.

# FY 2002 Budget

- Beginning to plan for 2002 budget.
- To meet April 26 to discuss 2002 budget proposal development.
- To focus on 5 year plan.
- To break out base funding requirements and incremental requirements.
- To add state and Clark County representative to review committee.

# Communications Sub-Committee

- Working with Nevada Highway Patrol and Nevada Department of Transportation.
- Assessing county coverage and requirements.
- Assessing NHP and NDOT options.
- Basically in fact finding phase.



**DIRECTIONS TO THE DEPARTMENT OF ENERGY NEVADA OPERATIONS OFFICE (Nevada Support Facility, 232 Energy Way, N. Las Vegas, Nevada)**

From McCarran Airport, take Swenson north to Tropicana Avenue. Turn left on Tropicana going west to Interstate 15 north. You pass the MGM Grand (green hotel on right). Go across Las Vegas Blvd. past New York, New York hotel on the right. Turn right onto I-15. Continue on I-15 and take the Lake Mead West exit. From Lake Mead, turn right at the first stoplight on Losee Road. Continue north on Losee Road for about 3/4 mile (past stoplight at Carey). Turn left on Energy Way at the stoplight and continue straight to the NSF.



McCarran Airport

# **ANNUAL REPORT - FY 2000**

## **Radioactive Waste Shipments To And From The Nevada Test Site (NTS)**

**March 2001**

**United States Department of Energy  
Nevada Operations Office  
Las Vegas, Nevada**

*Availability for sale to the public from-*  
*U.S. Department of Commerce*  
*National Technical Information Service*  
*5285 Port Royal Road*  
*Springfield, VA 22161*  
*Phone 800.553.6847*  
*Fax 703.605.6900*  
*Email: orders@ntis.fedworld.gov*  
*Online ordering: <http://www.ntis.gov/ordering.htm>*

*Available electronically at <http://www.doe.gov/bridge>*

*Available for a processing fee to U.S. Department of Energy and its contractors, in paper, from-*  
*U.S. Department of Energy*  
*Office of Scientific and Technical Information*  
*P.O. Box 62*  
*Oak Ridge, TN 37831-0062*  
*Phone 865.576.8401*  
*Fax 865.576.5728*  
*Email: reports@adonis.osti.gov*

## TABLE OF CONTENTS

1.0	INTRODUCTION .....	1
2.0	SUMMARY OF WASTE SHIPMENTS (FY 2000) .....	1
2.1	Waste Transporters (Motor Carriers) .....	2
2.2	Shipments and Volume .....	3
2.3	Transportation Routes .....	3
2.4	Transportation Route Reporting .....	4
3.0	INCIDENT/ACCIDENT DATA .....	7
4.0	EVALUATION OF SHIPPING CAMPAIGNS .....	10
5.0	REFERENCES .....	10
6.0	POINTS OF CONTACT .....	11
7.0	ACRONYM LIST .....	11
8.0	DISTRIBUTION LIST .....	12

## **1.0 INTRODUCTION**

In February 1997, the U.S. Department of Energy (DOE) Nevada Operations Office (NV) issued the Mitigation Action Plan which addressed potential impacts described in the “Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada” (DOE/EIS 0243). DOE/NV committed to several actions, including the preparation of an annual report, which summarizes waste shipments inbound to the Nevada Test Site (NTS) Radioactive Waste Management Sites (RWMSs) at Area 3 and Area 5, and outbound from the NTS. This document satisfies requirements with regard to reporting of low-level radioactive waste (LLW), mixed low-level radioactive waste (MLLW), and Polychlorinated Biphenyl contaminated low-level waste (PCB/LLW) transported to or from the NTS during fiscal year (FY) 2000.

This report has been prepared in accordance with the specifications contained in Section 4.1.1 (Commitments) of the “NTS Environmental Impact Statement, Mitigation Action Plan” (February 1997). Tabular summaries are provided which include the following data:

- C Sources of and carriers for LLW, MLLW, and PCB/LLW shipments to or from the NTS;
- C Number and volume of LLW, MLLW, and PCB/LLW shipments;
- C Identification of highway routes used by carriers;
- C Summary of highway routes used by carriers each quarter; and
- C Incident/accident data applicable to LLW, MLLW, and PCB/LLW shipments.

## **2.0 SUMMARY OF WASTE SHIPMENTS (FY 2000)**

During FY 2000, disposal at the NTS RWMSs included 645,092 cubic feet (ft<sup>3</sup>) of LLW from 13 generator sites and 1,041 ft<sup>3</sup> of MLLW from an on-site generator, for a total volume of 646,133 ft<sup>3</sup>. The waste was received at the two RWMSs in a total of 520 motor carrier shipments. In addition, there was one outbound shipment of PCB contaminated LLW from the NTS to the Toxic Substance Control Act (TSCA) incinerator located at the DOE East Tennessee Technology Park (ETTP) in Oak Ridge, Tennessee. Of these 521 shipments, none were involved in any vehicular accidents or incidents. The following sections present waste shipment information for FY 2000, including all LLW, MLLW, and PCB/LLW shipments to and from the NTS.

## 2.1 Waste Transporters (Motor Carriers)

Generally, generators utilize more than one motor carrier. The following table (Table 1) lists each waste generator and corresponding motor carrier(s) used for transport of LLW (and MLLW and PCB/LLW for Bechtel Nevada (BN)). Motor carriers are chosen selected by generators and operate in compliance with Title 49 Code Of Federal Regulations (CFR), Transportation and 40 CFR, Protection of Environment.

**Table 1. Waste Transporters**

<b>Generator/Code/Location</b>	<b>Motor Carrier(s) Used</b>
Bechtel Jacobs (BJ) Oak Ridge, TN	Kindrick Trucking Co.
Bechtel Nevada (BN) Las Vegas, NV  Onsite NTS and from Tonopah Test Range - LLW/MLLW  Outbound to ETTP - PCB/LLW	Bechtel Nevada  Hittman Transportation Services
Boeing North American- Rocketdyne (ETEC) Canoga Park, CA	M.P. Environmental
Fernald Environmental Management Project (FEMP) Cincinnati, OH	Landstar Ranger Fluid Transport Inc. R&R Trucking Incorporated (RRISS International)
General Atomics (GA) San Diego, CA	Tri-State Motor Transport N. G. Chemical, Inc.
International Technology (IT) Las Vegas, NV Onsite NTS - LLW	Bechtel Nevada
Lawrence Livermore National Laboratory (LLNL) Livermore, CA	Tri-State Motor Transport                      Landstar Ligon TAG Transport                                      Hittman Transportation Services R&R Trucking Incorporated (RRISS International)
Lovelace Respiratory Research Institute (LRRRI) Albuquerque, NM	Fluid Transport Inc.
Mound Plant (MEMP) Miamisburg, OH	Landstar Ranger A.J. Metler
Pantex Plant (PP) Amarillo, TX	Fluid Transport Inc. Triad Transport
Rocky Flats Environmental Technology Site (RFETS) Golden, CO	Colorado/Cast Transportation, Inc.                      R&R Trucking, Inc. Hittman Transport Services                                      A.J. Metler
Sandia National Laboratories (SNL/CA) Livermore, CA	Tri-State Motor Transport
Sandia National Laboratories (SNL/NM) Albuquerque, NM	Tri-State Motor Transport

## 2.2 Shipments and Volume

The following table (Table 2) presents a summary of all waste shipments received at or sent from the NTS during FY 2000. Since MLLW is accepted only from in-state (DOE/NV) sources, these shipments are included under BN, the operating contractor for the NTS.

**Table 2. Shipments and Volumes of Waste Sent To and From the NTS (FY 2000)**

Generator Code	Shipments by Quarter				Total Shipments	Total Volume (ft <sup>3</sup> )
	1st	2nd	3rd	4th		
<b>Inbound Shipments</b>						
BJ	0	0	23	37	60	10,920
BN - NTS & TTR, NV	0	2	4	6	12	6,770
BN - MLLW	1	0	0	1	2	1,041
ETEC	7	1	3	1	12	7,031
FEMP	1	9	32	55	97	130,345
GA	34	11	5	7	57	45,552
IT	0	0	1	1	2	253
LLNL	6	8	6	12	32	31,925
LRRRI	0	0	0	1	1	1,280
MEMP	10	7	21	18	56	79,641
PP	0	20	0	4	24	15,730
RFETS	25	42	59	29	155	305,747
SNL/CA	0	1	0	0	1	515
SNL/NM-	0	3	3	3	9	9,383
<b>SUBTOTAL (all inbound shipments to NTS)</b>	<b>84</b>	<b>104</b>	<b>157</b>	<b>175</b>	<b>520</b>	<b>646,133</b>
<b>Outbound Shipments</b>	<b>1st</b>	<b>2nd</b>	<b>3rd</b>	<b>4th</b>		
BN - PCB/LLW	0	0	0	1	1	4
<b>TOTAL (all inbound and outbound shipments)</b>	<b>84</b>	<b>104</b>	<b>157</b>	<b>176</b>	<b>521</b>	<b>646,137</b>

## 2.3 Transportation Routes

There were 11 out-of-state generators who shipped waste to the NTS for disposal in FY 2000. The transportation routes used by the out-of-state generators to the NTS are identified in Figure 1. Transportation routes were selected by the carrier (49 CFR 397.101). A majority of the IT (LLW) and BN (LLW and MLLW) shipments were generated on the NTS and transported to the RWMSs on highways that are not accessible to the general public. BN shipments from the Tonopah Test Range (TTR),

identified in Figure 2, traveled on U.S. Highway 95, a public highway. As a result of geographical considerations, the routes used by selected sources may overlap to a substantial degree (e.g., the routes used by the FEMP and MEMP, both located in Ohio, are essentially the same). Generators that use the same route as another generator with a point of origin farther from the NTS are identified as using the same Route ID as indicated in Table 3.

BN made one outbound shipment of PCB/LLW during FY 2000 from the NTS to the DOE/TSCA incinerator at Oak Ridge, TN. The total volume of the PCB/LLW shipped and incinerated was 4 ft<sup>3</sup>. No residual waste materials were returned to the NTS. The route used for this shipment is identified in Figure 1 (route J). Figures 1 and 2 provide national and regional views of transportation routes used. Table 3 route IDs correspond to Figures 1 and 2.

## **2.4 Transportation Route Reporting**

As a result of obligations made by former DOE Secretary Richardson, the transportation of inbound LLW shipments through the Las Vegas I-15 and I-95 Interchange (“Spaghetti Bowl”) and across Hoover Dam, was substantially decreased in FY 2000. In an ongoing effort by DOE/NV to reduce the use of these particular routes, the DOE/NV Operations Office has engaged in extensive discussions with the generators regarding the avoidance of the “Spaghetti Bowl” and Hoover Dam, and generally persuaded generators toward compliance with this goal.

An additional obligation made by Secretary Richardson was the preparation of a quarterly report to the interested stakeholders disclosing which routes transporters used to reach the NTS.

In summary, these reporting mechanisms and agreements by DOE management to avoid certain geographic and urban areas have caused a major shift in the overall routing of inbound LLW to the NTS within fiscal year 2000. Table 4 is a summary report of the routes taken by generator during each fiscal quarter. Please note that due to on-site transfers, lack of routing disclosure by some transporters, and incomplete data from some transporters, there are some minor discrepancies in the number of shipments reported between Tables 2 and 4.

**Table 3. Transportation Route Identification and Corridor States**

<b>Generator Code</b>	<b>Route ID</b>	<b>Corridor States</b>
BJ	A	TN, KY, IL, MO, IA, NE, WY, UT, NV
BN - (from TTR to NTS)	B	NV
BN - (PCB/LLW from NTS to Oak Ridge, TN)	J	NV, UT, CO, KS, MO, IL, KY, TN
ETEC	K	CA, NV
FEMP	H C	OH, IN, IL, IA, NE, WY, UT, NV OH, IN, IL, MO, OK, TX, NM, AZ, CA, NV
GA	D	CA, NV
IT - (from TTR to NTS)	B	NV
LLNL	E I	CA, NV CA, NV
LRRI	F	NM, AZ, CA, NV
MEMP	H C	OH, IN, IL, IA, NE, WY, UT, NV OH, IN, IL, MO, OK, TX, NM, AZ, CA, NV
PP	F	TX, NM, AZ, CA, NV
RFETS	G	CO, UT, NV
SNL/CA	E I	CA, NV CA, NV
SNL/NM	F	NM, AZ, CA, NV

**Table 4. Shipment Summary of Routes by Quarter for FY 2000**

GENERATOR	1st	2nd	3rd	4th	ROUTES
BJ	0	0	25	33	Northern Route (I-80, US-93, US-6, US-95)
BN	1	2	4	6	On-site; Routing Not Applicable
ETEC	7	1	4	0	Southern Route (I-15, CA-127, NV-373, US-95)
FEMP	1	12	4	2	Southern Route (I-15, CA-127, NV-373, NV-160, US-95)
	0	0	31	47	Northern Route (I-80, US-93, US-6, US-95)
GA	34	11	5	7	Southern Route (I-15, CA-127, NV-373, US-95)
LLNL	0	0	3	1	Northern Route (I-580, I-205, I-15, I-80, US-95)
	0	4	1	3	Northern Route (I-580, I-205, CA-99, CA-58, I-15, US-95) thru Las Vegas Spaghetti Bowl
	6	5	0	3	Southern Route (I-15, CA-127, NV-373, US-95)
LRR1	0	0	0	1	Southern Route (I-40, US-68, US-95, NV-164, I-15, NV-160, US-95)
MEMP	0	0	4	9	Northern Route (I-80, US-93, US-6, US -95)
	10	3	2	8	Southern Route (I-40, US-95, NV-164, I-15, CA-127, NV-373, US-95) or
		2	12	0	Southern Route (I-40, US-95, NV-164, I-15, NV-160, US-95)
		8	1	0	Southern Route (I-40, US-95, over Hoover Dam and Thru Las Vegas Spaghetti Bowl)
PP	0	20	0	4	Southern Route (I-15, CA-127, NV-373, US-95)
RFETS	0	8	0	0	Southern Route (I-40, US-93, US-95) over Hoover Dam and Thru Las Vegas Spaghetti Bowl
	25	31	39	1	Las Vegas Route (I-15, US-95) thru Las Vegas Spaghetti Bowl
	0	0	0	16	Northern Route (I-80, US-93, US-6, US -95)
	0	7	14	5	Las Vegas Route (I-15, Cheyenne/Craig, US-95) Avoids Las Vegas Spaghetti Bowl
SNL/CA	0	1	0	0	Northern California Route (I-580, I-80, US-95)
SNL/NM	0	4	1	3	Southern Route (I-40, US-95, I-515, NV-146, I-15, NV-160, US-95)
	0	0	1	0	Southern Route (I-40, US-95, NV-164, I-15, CA-127, US-95)
<b>TOTALS</b>	84	119	151	149	

**NOTE:** The routes described above are the core routes used by the motor carriers that haul low-level waste to the Nevada Test Site. On a daily basis, variations of these routes are used by the motor carriers. Additional shipments of waste are received from on-site generators, and no routing report was necessary. Some shipments did not disclose routing.

### **3.0 INCIDENT/ACCIDENT DATA**

LLW, MLLW, and PCB/LLW shipments are made in accordance with all applicable DOE, Nuclear Regulatory Commission (NRC), United States Department of Transportation (DOT), EPA, and state and local regulations and requirements. Generators are responsible for evaluating and selecting motor carriers used for transportation of radioactive waste. Generators are also requested to notify the DOE/NV Assistant Manager of Environmental Management whenever a discrepancy, non-compliance, or inadequate performance is identified; or if a transportation incident or emergency situation occurs. BN personnel control waste receipt and disposal activities at the NTS and are responsible for notifying appropriate DOE personnel regarding any non-compliant or refused radioactive waste shipments. BN personnel also immediately notify generators in the event of any shipping paper discrepancies. For the purpose of this report, an incident is defined as a traffic related accident, a load shift, or a leaking package occurring during transportation. During FY 2000, there were no carrier vehicular accidents or incidents associated with any radioactive waste shipments.

Figure 1. National Transportation Routes for LLW and MLLW Carriers (as identified in Table 3)

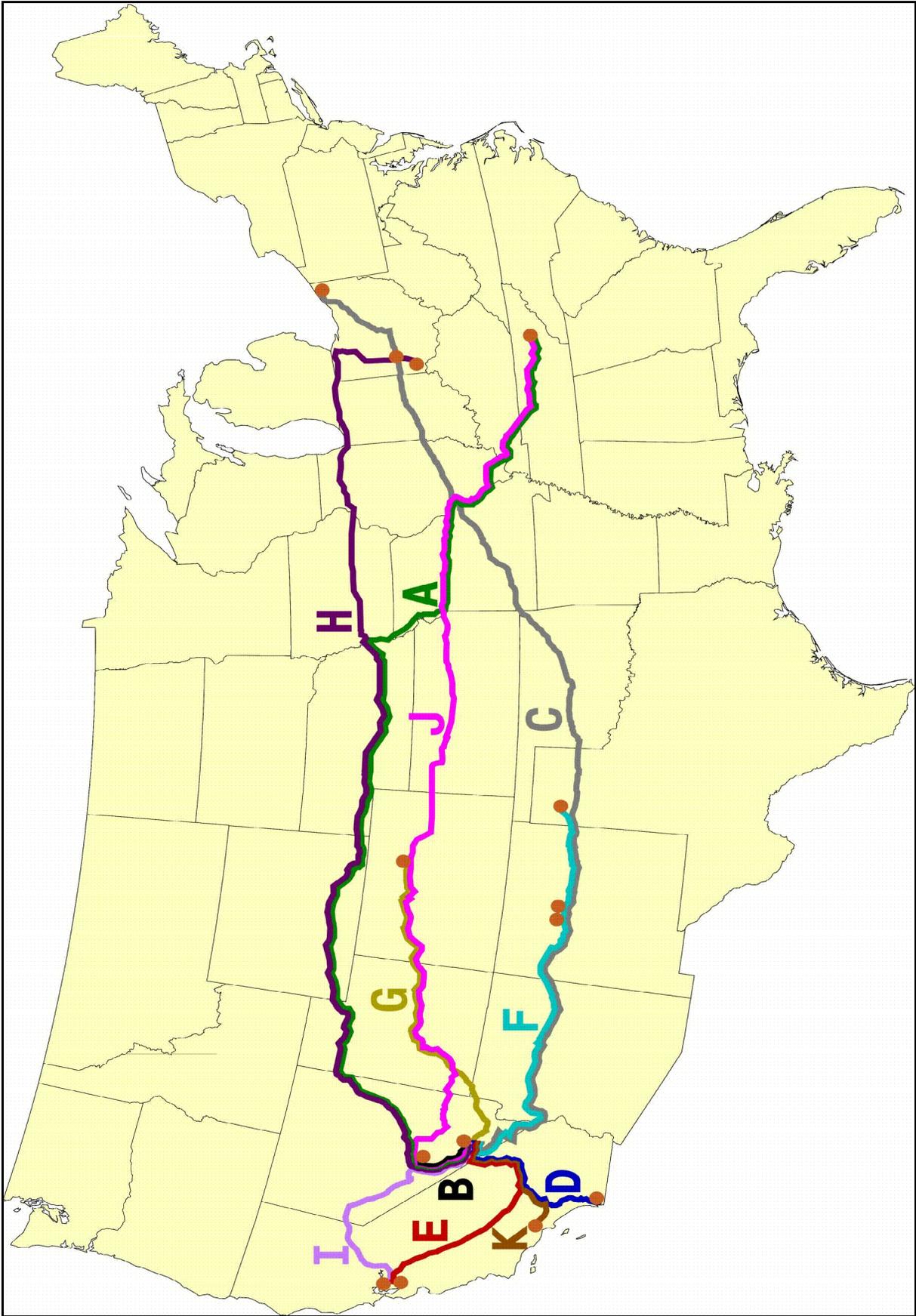
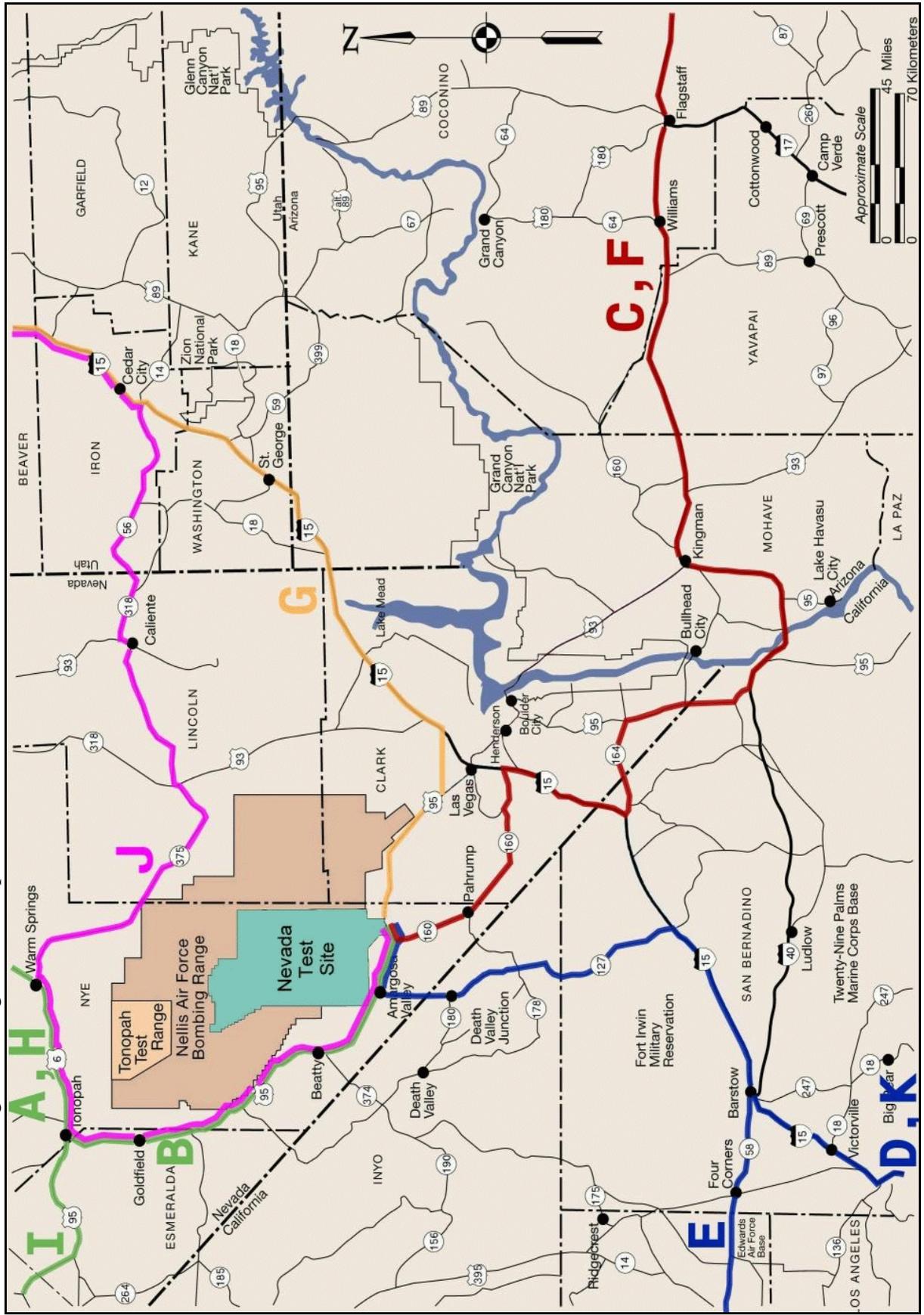


Figure 2. Regional Transportation Routes for LLW and MLLW Carriers (as identified in Table 3)



#### **4.0 EVALUATION OF SHIPPING CAMPAIGNS**

During FY 2000, the NTS received 520 shipments of LLW and MLLW at the Area 3 and Area 5 RWMSs for disposal. Bechtel Nevada made one shipment of PCB/LLW from the NTS to the DOE TSCA incinerator in Oak Ridge, Tennessee. None of the 521 shipments experienced any incidents. All generator shipping campaigns were considered successful.

#### **5.0 REFERENCES**

The primary sources of shipment information were records kept by the BN Waste Management Program, which manages the NTS RWMSs at Area 3 and Area 5. These records provided detailed information on each shipment of LLW and MLLW (dates received, sources, number and type of waste packages, volumes, weight, carrier, and final disposition of the shipments). In addition, incident and accident, and routing information was gathered by reviewing other BN and DOE/NV correspondence and through personal communication with DOE/NV managers, BN management and program personnel, representatives from the waste generator (source) facilities, and carrier personnel.

The following source documents are incorporated by reference:

- C U.S. Department of Energy, Nevada Operations Office, "Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada," DOE/EIS 0243, Las Vegas, Nevada, August 1996.
- C U.S. Department of Energy, Nevada Operations Office, "Mitigation Action Plan - Final Environmental Impact Statement for the Nevada Test Site and Off-Site Locations in the State of Nevada," DOE/EIS 0243, Las Vegas, Nevada, February 1997.
- C U.S. Department of Transportation (DOT) Regulations, 49 CFR, "Transportation," Office of the Federal Register, National Archives and Records Administration, U.S. Government Printing Office, Washington, DC, 1998
- C U.S. Environmental Protection Agency (EPA) Regulations , 40 CFR, "Protection of the Environment", Office of the Federal Register, National Archives and Records Administration, U.S. Government Printing Office, Washington, DC, 1998

## 6.0 POINTS OF CONTACT

The following are points of contact for questions concerning the transportation of radioactive waste at the NTS or for requests for information relating to waste management and DOE/NV operations.

### TRANSPORTATION

E. Frank Disanza, Acting Transportation Manager  
Waste Management Division  
U.S. Department of Energy  
Nevada Operations Office  
P.O. Box 98518  
Las Vegas, NV 89193-8518  
(702) 295-5855

### WASTE MANAGEMENT

E. Frank DiSanza, Director  
Waste Management Division  
U.S. Department of Energy  
Nevada Operations Office  
P.O. Box 98518  
Las Vegas, NV 89193-8518  
(702) 295-5855

## 7.0 ACRONYM LIST

<b>BJ</b>	Bechtel Jacobs
<b>BN</b>	Bechtel Nevada
<b>CFR</b>	Code of Federal Regulations
<b>ft<sup>3</sup></b>	Cubic feet
<b>DOE/NV</b>	United States Department of Energy Nevada Operations Office
<b>DOT</b>	United States Department of Transportation
<b>ETEC</b>	Boeing North American-Rocketdyne
<b>FEMP</b>	Fernald Environmental Management Project
<b>FY</b>	Fiscal year
<b>GA</b>	General Atomics
<b>IT</b>	International Technologies
<b>LLNL</b>	Lawrence Livermore National Laboratory
<b>LLW</b>	Low-level radioactive waste
<b>LRRRI</b>	Lovelace Respiratory Research Institute
<b>MEMP</b>	Mound Plant
<b>MLLW</b>	Mixed low-level radioactive waste
<b>NRC</b>	Nuclear Regulatory Commission
<b>NTS</b>	Nevada Test Site
<b>PCBs</b>	Polychlorinated Biphenyl
<b>PP</b>	Pantex Plant
<b>RFETS</b>	Rocky Flats Environmental Technology Site
<b>RWMSs</b>	Radioactive Waste Management Sites
<b>SNL/CA</b>	Sandia National Laboratories of California
<b>SNL/NM</b>	Sandia National Laboratories of New Mexico
<b>TSCA</b>	Toxic Substance Control Act
<b>TTR</b>	Tonopah Test Range

## **8.0 DISTRIBUTION LIST**

U.S. Department of Energy  
Nevada Operations Office  
Technical Information Resource Center  
P.O. Box 98518  
Las Vegas, NV 89193-8518

U.S. Department of Energy  
Nevada Operations Office  
Public Reading Facility  
P.O. Box 98521  
Las Vegas, NV 89193-8521

U.S. Department of Energy  
Office of Scientific and Technical Information  
P.O. Box 62  
Oak Ridge, TN 37831-0062

U.S. Department of Energy  
National Transportation Program - Albuquerque  
P.O. Box 5400  
Albuquerque, NM 87185