

This report was prepared for the Fernald Citizens Advisory Board by Phoenix Environmental of Alexandria, Virginia. Additional information and materials about the SSAB Transportation Workshop or the Fernald Citizens Advisory Board can be obtained by calling the FCAB office at 513-648-6478.

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Introduction

The Fernald Citizens Advisory Board hosted the 1999 Department of Energy (DOE) Site-Specific Advisory Board (SSAB) Transportation Workshop in Cincinnati, Ohio, on May 20-23, 1999. The workshop was designed for stakeholders who are actively involved in public participation activities for the remediation of major facilities in the DOE complex to:

1. Improve stakeholder understanding of transportation-related issues and decision-making processes.
2. Foster dialog among SSABs about national transportation issues and create opportunities for continuing that dialog.
3. Identify joint issues and concerns and draft statements to further the resolution of those concerns.

The workshop focused on four core topics:

- Routing, Mode, and Cost
- Packaging, Safety, and Risk Assessment
- Stakeholder Involvement, Communication, and Education
- Notification and Emergency Response

The Stewardship Workshop was the second in a series of national SSAB workshops to focus on specific issues that affect all DOE sites. The first workshop on low level waste was hosted by the Nevada Test Site SSAB in Las Vegas, Nevada in August 1998. The Fernald CAB chose to host the Transportation Workshop due to its ongoing interest and activities in ensuring the safe and equitable transportation of radioactive waste materials to and from DOE sites. The Fernald site is well on its way to completing remediation. Though over 80% of site wastes will be managed on the Fernald site, a sizable volume of material will still be transported. Fernald CAB members believe that successful transportation of these materials can only be achieved through aggressive inter-site communication and cooperation.

Stakeholder awareness and involvement is also very important. Beginning in 1994, as Fernald CAB members became aware of the volumes of materials that would need to be shipped from the Fernald site, they also became aware of the national significance of waste shipping and the impact on stakeholders throughout the nation. They began collecting and evaluating data and working with stakeholders at other sites, particularly the Nevada Test Site where much of Fernald waste has been shipped. The transportation workshop is a continuation of that effort to ensure that all stakeholders have the opportunity to understand the issues associated with waste shipping and to have an opportunity for ongoing dialog with other stakeholders from throughout the nation.

Forty-eight SSAB members, representing ten sites, and 77 other participants, including representatives from the Department of Energy, numerous state agencies, and other organizations, attended the workshop. (See Appendix A for a list of attendees).

Workshop Resources

To improve stakeholder understanding of transportation-related issues and decision-making processes, resource materials were developed to provide stakeholders a broad-based understanding of DOE transportation activities. One of these resource materials was a resource book, which contained:

- Background information regarding the workshop
The background information explained why the Fernald Citizens Advisory Board decided to host the workshop and the assumptions regarding the workshop.
- Site-specific fact sheets
SSABs from each DOE site created an overview of transportation issues at their site. Pie charts and line graphs were created from the *1998 Paths to Closure* document's data to approximate relative waste shipments to and from each site.
- Transportation fact sheets
Several fact sheets were developed which summarized and/or explained:
 - Examples of transportation routes for DOE sites
 - The federal laws and regulations applying to transportation of DOE radioactive materials
 - Requirements for the transportation of DOE radioactive materials
 - Packages for transportation of DOE radioactive materials
 - Roles and responsibilities in transporting DOE radioactive materials
 - Communication during the transportation of DOE radioactive materials
 - Overview of DOE-EM transportation activities



Each participant was provided with a detailed resource book.

To further enhance stakeholder understanding, the Department of Energy developed a detailed presentation which explained the transportation process step-by-step by using actual transportation process experts to explain their roles. Individuals portrayed the role of “program manager” for shipping Transuranic (TRU) waste and mixed low-level waste explained the process for transporting each waste type. The “program managers” called on a panel of experts to explain their role and activities in the process. To further explain, a “story board” illustrated this process. (See Appendix B for a copy of the Story Board).

Throughout the workshop, attendees had access to a resource room, which contained:

- Maps representing examples of transportation routes for DOE sites
- Models of packages for transportation of radioactive materials
- Internet connection for access to web sites related to transportation
- Demonstrations of computer programs which are used in the transportation of radioactive materials
- Videos explaining various aspects of transportation including WIPP, packaging for radioactive materials, and the Fernald site’s white metal box incident



A resource room was available to participants throughout the Workshop.

In addition to the resource room, a flat-bed tractor-trailer, equipped for transporting nuclear materials was available in the hotel’s parking lot for exploration by the workshop’s participants. Two truck drivers were on hand to explain the procedures for transporting nuclear materials and to answer questions about their truck.



Participants got the opportunity to tour a working (clean) radioactive materials transport truck.

Workshop Organization

Attendees participated in a variety of plenary sessions, core topic breakout groups, and site-specific breakout groups in order to foster dialog among the SSABs about national transportation issues, identify joint issues and concerns, and draft statements to the resolution of those concerns. The attendees alternated between meeting in plenary session and the breakout groups. The workshop agenda is shown in Figure 1.



Lead Facilitator Doug Sarno introduces the first plenary session.

In each of the four core topic breakout groups, the attendees discussed issues associated with that topic and drafted the statements that became the outcome of the workshop. In the site-specific breakout groups, the SSAB members met with their co-members to discuss the draft statements developed by each core topic breakout group to evaluate how those statements were likely to be received at their site based on site-specific issues. The site-specific breakouts then provided this feedback to each of the core topic breakouts.

In plenary sessions, attendees discussed broad areas of shared concern in each of the four core topics and provided feedback to the statements developed by each core topic breakout group. Core topic groups displayed draft statements on an overhead allowing members of the plenary session to make suggestions, to change the wording of the statement, or to identify additional areas of concern. The core topic group then took these suggestions back to the group for further discussion. After successive iterations and refinements, the statements were finalized in a plenary session.



Facilitator Mike Schoener leads a breakout group.

The overall process for developing the statements consisted of:

- Identification of major issues during plenary session
- Detailed discussion of core topics in breakout groups and first draft of statements
- Comments on first draft by site-specific groups
- Core topic groups revise statements based on site specific feedback and develop second draft of statement
- Comments on second draft by full plenary groups; revised statements based on plenary feedback
- Third drafts of statements are discussed and refined in plenary

Summaries of each of the core topic breakout groups can be found in Appendix C.

Figure 1. Workshop Agenda

Workshop At-A-Glance

	Morning	Noon	Afternoon
Thursday, May 20		3:00 p.m. - 6:00 p.m. Facilitator's Meeting (Camelot)	6:00 p.m. - 7:00 p.m. Registration (Regency Ballroom) 7:00 p.m. - 9:00 p.m. Reception
Friday, May 21	7:45 a.m. - 12:30 p.m. Tour of Fernald Site (Meet in hotel lobby) 8:30 a.m. - 12:00 p.m. Presentation Dry-Run (Regency Ballroom) 8:30 a.m. - 12:00 p.m. Facilitators Meeting (Camelot)	12:00 p.m. - 1:00 p.m. Lunch (Provided on tour or else on your own)	1:00 p.m. - 1:30 p.m. Welcome and Orientation (Regency Ballroom) 1:30 p.m. - 2:30 p.m. Plenary: SSAB Introductions 2:30 p.m. - 3:00 p.m. DOE Programs Overview 3:00 p.m. - 3:15 p.m. Break 3:15 p.m. - 5:30 p.m. Transportation Presentation 5:30 p.m. - 6:00 p.m. Site-Specific Preparation (Optional)
Saturday, May 22	8:00 a.m. - 9:30 a.m. Plenary: Core Topic Discussion (Regency Ballroom) 9:30 a.m. - 9:45 a.m. Break 9:45 a.m. - 12:00 p.m. Core Topic Breakout Session I	12:00 p.m. - 1:30 p.m. Deli Buffet Luncheon (Forum Grill)	1:30 p.m. - 2:30 p.m. Site-Specific Breakouts 2:30 p.m. - 3:45 p.m. Core Topic Breakout Session II 3:45 p.m. - 4:00 p.m. Break 4:00 p.m. - 5:30 p.m. Plenary: Core Topic Statement Presentations Session I (Regency Ballroom)
Sunday, May 23	8:00 a.m. - 9:30 a.m. Plenary: Core Topic Statement Presentations Session II (Regency Ballroom) 9:30 a.m. - 9:45 a.m. Break 9:45 a.m. - 10:30 a.m. Core Topic Breakout Session III 10:30 a.m. - 10:45 a.m. Break 10:45 a.m. - 11:45 a.m. Plenary: Discussion of Revised Statements (Regency Ballroom)	11:45 a.m. - 12:45 p.m. Plenary: Discuss Next Steps (Regency Ballroom) 12:45 p.m. - 1:00 p.m. Sign Statements and Adjourn	

Workshop Outcome

As a result of the workshop process, SSAB members and participants developed eight statements concerning DOE's transportation of radioactive materials and waste. SSAB members and participants were invited to endorse or indicate non-endorsement of each statement by signing provided signature pages. Statements one and two concern routing, mode, and cost; statement three concerns packaging; statements four, five, and six concern stakeholder involvement; and statements seven and eight concern notification and emergency response. Figure 2 summarizes the signature profile for the each of the eight statements. (See Figures for Summary of Statement Endorsements.)

Figure 2. Summary of Statement Endorsements

Statement #	# of SSAB Member Endorsements	# of Participant Endorsements	# of SSAB Member Non-Endorsements
1	39	7	0
2	40	7	0
3	40	7	0
4	34	7	3
5	38	7	1
6	39	7	0
7	37	7	2
8	40	7	0

As a result of the 1999 SSAB Transportation Workshop, Site-Specific Advisory Boards at Department of Energy also decided to explore the formation of an inter-site working group to focus on issues related to the transportation of radioactive materials and waste.

Initial membership in the working group will include of one member from each of the ten SSABs that attended the 1999 Transportation Workshop, with membership from additional sites welcome.

The Fernald Citizens Advisory Board offered to provide administrative and facilitation support for the formation of the working group. It was proposed that the working group will meet four times per year: twice in person and twice by conference call. The in-person meetings will be conducted in conjunction with the Transportation External Coordination Working Group (TEC/WG) meetings. The TEC/WG meeting on July 13-15, 1999, in Philadelphia, Pennsylvania, was selected to serve as the initial exploratory meeting of the SSAB Working Group.

Transportation Statements

The SSAB members and participants developed eight statements concerning DOE's transportation of radioactive materials and waste. Those SSAB members and participants who endorsed or chose not to endorse the statements signed the statements. Statements one and two concern routing, mode, and cost; statement three concerns packaging; statements four, five, and six concern stakeholder involvement; and statements seven and eight concern notification and emergency response.

The following are the eight statements.

Statement 1

Routes for radioactive materials and waste should be pre-negotiated using a model that allows for:

- The identification of proposed routes by DOE based on a comprehensive risk analysis that considers radiological and non-radiological hazards
- An opportunity for states, Tribal nations, local governments, and the public to review and propose alternative routes
- Future changes in route alternatives and infrastructure using the model
- Consideration of existing routes based on safety and cost

This should not interrupt existing shipments.

Statement 2

DOE must not predetermine a specific mode. In selecting a mode, DOE should consider the local community impacts, community impacts along the corridor, and environmental justice. Alternative modes should be considered based on risk analysis and life cycle costs and benefits.

Statement 3

In order to enhance safety and to save time and money:

- The container system for the transportation of radioactive materials and waste should be standardized as much as possible within the waste acceptance criteria at the destination site or facility.
- Transportation protocols should be standardized whenever possible, irrespective of mode (truck, rail, or intermodal).

Statement 4

The risks associated with the transportation of radioactive materials and waste should be estimated using up-to-date, independently validated methods. For purposes of education, the public should be encouraged to be actively involved from the beginning. The methods for assessing the risks of radioactive materials and waste transportation and the estimated risks should be communicated comprehensively to the public, especially along the corridors/routes.

Statement 5

During the conceptual stages of planning, DOE should begin a dialogue with the public, Tribal nations, and other impacted parties whenever developing policy initiatives, planning, and implementing activities for the transportation of radioactive waste and materials. This dialogue must be continued throughout the decision-making process.

Statement 6

With regard to the transportation of radioactive waste and materials, DOE should facilitate partnerships to develop and implement two-way education and information sharing with and among:

- The public
- Tribal nations
- Educational institutions and officials
- Federal, state, and local agencies, and both elected and other officials
- The media
- DOE Headquarters, Field Offices, and Sites

To better facilitate these partnerships, it is especially important for DOE Headquarters, Field Offices, sites, and programs to communicate effectively with and among each other.

Statement 7

Should an incident or accident occur during a radioactive materials or waste shipment, the availability of professionally trained and well-equipped emergency response teams is vital. DOE and other entities, such as states, Tribal nations, and local governments, should provide appropriate funding and resources earmarked for emergency response programs along the transportation corridors.

Statement 8

DOE, in conjunction with states and Tribal nations, should develop notification protocols for the transportation of radioactive materials and waste and for shipping incidents or accidents. The states are urged to establish standardized procedures for subsequent notification to appropriate local governments. Notification should be tailored to correlate with the level of hazard of the materials shipped. DOE should utilize the best available technologies to facilitate uniform and universal notification.

Conclusions

The Transportation Statements developed in the workshop strongly reinforce the workshop participants desire to see strong public involvement in transportation planning and implementation. It was clear from the discussions and outcome that the public desires input at all levels of transportation to ensure that DOE conducts safe and equitable transportation campaigns. The public showed its willingness and capability to understand the details of transportation, safety, and risk in providing meaningful input to the process.

While it is too early to judge the impact of the SSAB Transportation Workshop on DOE activities, the initial feedback from attendees across all groups (e.g., SSAB members, state regulators, federal and local government participants) was extremely positive (See Appendix D for a Summary of Workshop Evaluations).

It was generally agreed that the workshop:

- Contributed to understanding transportation issues and their relationship to remediation of contaminated DOE sites,
- Highlighted important transportation issues,
- Provided substantive input to DOE Headquarters planning for understanding key stakeholder transportation issues, and
- Provided a solid basis for future inter-SSAB transportation activities.

The primary goal of the Fernald SSAB in hosting the Transportation Workshop was to develop a shared basis of knowledge among DOE SSABs and to begin an ongoing dialogue on transportation issues. From that standpoint and for the ability to identify a number of commonly-held issues and concerns, the Fernald SSAB believes that the Transportation Workshop was an unqualified success.

Appendix A

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Attendees



List of Participants

SSAB Members

Jim Bierer Fernald CAB	Bob Bobo INEEL CAB	William Pardue Oak Ridge SSAB
Sandy Butterfield Fernald CAB	Jim Bondurant INEEL CAB	Rikki Traylor Oak Ridge SSAB
Marvin Clawson Fernald CAB	Chuck Rice INEEL CAB	John Blakley Pantex Plant CAB
Lisa Crawford Fernald CAB	Dave Rydalch INEEL CAB	Sidney Blankenship Pantex Plant CAB
Pam Dunn Fernald CAB	Monte Wilson INEEL CAB	Nathaniel Cantly Pantex Plant CAB
Ken Moore Fernald CAB	Dennis Bechtel Nevada Test Site CAB	Dr. K.R. Ramakrishnan Pantex Plant CAB
Bob Tabor Fernald CAB	Richard Nocilla Nevada Test Site CAB	Shawn Burke Rocky Flats CAB
Fawn Thompson Fernald CAB	Frank Overbey Nevada Test Site CAB	Gerald DePoorter Rocky Flats CAB
Tom Wagner Fernald CAB	Kenneth Reim Nevada Test Site CAB	Victor Holm Rocky Flats CAB
Gene Willeke Fernald CAB	Michael Williams Nevada Test Site CAB	Bryan Taylor Rocky Flats CAB
L. French Bell Fernald CAB/ATSDR	George Chandler Northern New Mexico CAB	Hal Marchand Sandia CAB
Pam Brown Hanford Advisory Board	Jim Johnston Northern New Mexico CAB	Lauro Silva Sandia CAB
Harold Heacock Hanford Advisory Board	James Leach Northern New Mexico CAB	Brendolyn Jenkins Savannah River Site CAB
Paige Knight Hanford Advisory Board	Connie Thompson-Ortega Northern New Mexico CAB	Karen Patterson Savannah River Site CAB
Wade Riggsbee Hanford Advisory Board	Randall Gordon Oak Ridge SSAB	P.K. Smith Savannah River Site CAB

List of Participants (continued)

Non-SSAB Members

Bob Alcock Department of Energy	Brent Daugherty SRS-BNFL	Ken Korkia Rocky Flats CAB Staff
Linda Andrews Professional Driver for TRISM	Leah Dever Department Of Energy Ohio	Kim Lahman Fluor Daniel Fernald Public Affairs
Nancy Bennett University of New Mexico	Fred Dilger Clark County Comprehensive Planning	Brady Lester Department of Energy Oak Ridge
Larry Blalock Department of Energy	Earle Dixon Nevada Test Site CAB Staff	Kin Lo Ontario Power Generation
Denise Brooks Texas Energy Conservation Office	Gwen Doddy Fernald CAB Adminstrative Assistant	Becky Lopez Pantex Plant CAB Staff
Loretta Bush ATSDR	Ann DuBois Northern New Mexico CAB Staff	Wendy Green Lowe INEEL CAB Staff
Fred Butterfield Department of Energy	Fred Ferate Department of Transportation	Anna Martinez Department of Energy Rocky Flats
M J Byrne Department of Energy New Mexico	John Evanko MHF Logistical Solutions	Joel Maxwell Tri-State Motor Transit
Diana Cahall Portsmouth Stakeholder	Lew Goidell Fluor Daniel Fernald	Deborah Milnes Envirocare
Oliver Carroll Environmental Advisory Group-ON	Glenn Griffiths Department of Energy Fernald	Graham Mitchell Ohio EPA
Ann Ragan Clark South Carolina DHEC	Alton Harris Department of Energy	Ken Niles Hanford Advisory Board
Victoria Coston Nevada Test Site CAB Staff	Judith Holm National Transportation Program	Tisha Patton Fluor Daniel Fernald
Bert Crapse Department of Energy Savannah River	Susan Arnold Kaplan Local Oversight Committee Oak Ridge	Jimmie Pegues City of Las Vegas
Pete Cummings City of Las Vegas	Kelly Kelkenberg Department of Energy	Laura Pendlebury Department of Energy Pantex
Delbert Cupp Professional Driver for TRISM		Ron Pope Oak Ridge National Laboratory

List of Participants (continued)

Kevin Rohrer
Department of Energy Nevada

Susan Silbernagel
University of Washington

Allan Turner
Colorado State Patrol

Ron Ross
Western Governors' Association

Mike Schoener
Savannah River Site CAB Staff

Elgan Usrey
Tennessee Emergency
Management

George Ruberg
Urban Energy and
Transportation Corp.

Gary Stegner
Department of Energy Fernald

Richard Waples
U.S. Army Corps of Engineers

Woody Russell
Department of Energy Idaho

Dick Telfer
Journalist/Nevada Stakeholder

Ruth Weiner
Sandia National Laboratories

Doug Sarno
Fernald CAB Facilitator

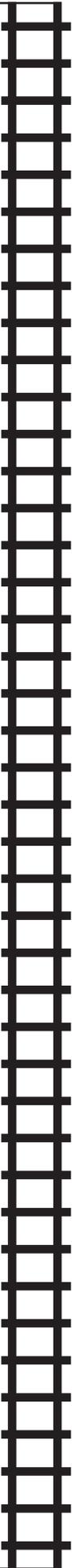
Carlos Tellez
Fluor Daniel Fernald

Richard Wilde
Waste Management
Services of Hanford

Appendix B

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Transportation Story Board



Appendix C

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Summaries of the Breakout Groups

Summary of the Routing, Mode, and Cost Breakout Group

Identification of Issues During Plenary Session

The plenary session identified the following issues related to routing, mode, and cost:

- Routing Mode cost
- Local government involvement's in routing
- Individual safety vs. radiation safety
- Receiving capacity vs. deliveries
- Learning from others' experience
- Follow WIPP experience/routing
- Intermodal
- Carrier involvement/accountability
- Education/training
- Role of Tribes
- Commitment of funding/Congress
- Costs other than cash values
- Standards of roads/improvements
- Requirements to stick to route
- Criteria for pre-trip inspections
- Barges and air transport
- Local costs of transportation/congestion, etc.
- National security

First Session

The routing, mode, and cost breakout group discussed the above issues with the following key point in mind:

- Decided that in crafting statements the group would deal with transportation of any waste. Not necessarily specific routes, this will allow specific boards to deal with the specifics of their sites.

The group expanded upon some issues and deleted some issues from the plenary session's list. The following are the initial changes to the list:

1. Criteria for pre-trip inspections deleted, felt it belonged to Safety.
2. Local costs of transportation/congestion, etc. deleted and added to Standards of roads/improvements.
3. Local Government involvement in routing changed to local/state/tribal involvement in routing.
4. Individual safety vs. radiological safety, changed to Non-radiological safety vs. radiological safety.
5. Delete receiving capacity vs. deliveries.
6. Added pre-negotiated routes.
7. Delete education/training because two other groups are dealing with it.
8. Added rail vs. truck.
9. Added benefit vs. cost.

A suggestion was made to try to have one statement for routing and another for mode.

The breakout group identified the following issues related to routing:

- Pre-negotiated routes
- Stick to routes established
- Types of shipments
- Use of existing routes
- Hard money cost
- Cost other than cash value
- Timeframes (closing routes)
- Don't overload routes
- Include state/local/Tribal involvement
- Occupation
- Use WIPP model
- Route segments
- Improvements of Roads

The breakout group identified the following issues related to mode:

- In selecting a mode
- Characterization of material
- First priority: local community impact (shipper and receiver)
- Risk analysis/assessment
- Several modes need to be considered
- Volume and cost (cost benefit analysis)
- When using rails - dedicate a train

The group believed characterization of material was a given; therefore, it was deleted from the list.

The group used the following outlines to help it frame their statements:

Pre-negotiated route based on type of statement, knows who you need to deal with, focuses on training.

Routes should be pre-negotiated, using the WIPP experience as a guide:

- Pre-identification of the proposed routes by DOE
- Opportunity for states/tribes/local governments to review and proposed alternative routes, independent of DOE under DOT regulations
- Allow for future changes
- DOE locks routes in with carrier

This allows for:

- Focus costs/funding (i.e.) emergency management training, infrastructure
- Early involvement

First Draft Statements on Routing and Mode

Routes should be pre-negotiated, using a model that includes but is not limited to:

- The pre-identification of proposed routes by DOE
- Provides an opportunity for states/tribes/local governments to review and propose alternative routes independent of DOE
- Allows for future changes

This will allow for a focus on costs and funding for emergency management, training, and infrastructure.

DOE must not pre-conceive a specific mode. In selecting a mode DOE should consider the local community impact on both the shipping and receiving ends. Alternative modes should be considered based on risk analysis, life cycle cost and benefits.

Second Session

During the core topic breakout session II, the routing, mode, and cost breakout group discussed the suggestions from the site-specific breakout groups and re-drafted the statements based upon the suggestions.

The site-specific breakout groups' suggestions for the statement on routing were:

- Specification to type of material (placard)
- Add public
- Industrial and radiological factors
- Allows for future changes routes, future changes in infrastructure using the model
- Start with pre-approved routes; don't interfere with other shipping

The site-specific breakout groups' suggestions for the statements on mode were:

- Combine first and second sentences.
- Consider corridor impacts
- Community disruption
- Include environmental justice

Second Draft Statement on Routing and Mode

Routes for radiological material/waste should be pre-negotiated using a model that includes but is not limited to:

- The identification of proposed routes by DOE. In proposing these routes DOE will conduct a comprehensive risk analysis, which will include consideration of radiological and non-radiological hazards
- Provides an opportunity for states/tribes/local government and public to review and propose alternative routes, independent of DOE

- Allows for future changes in route alternatives and changes in infrastructure using the model
- Consideration of existing routes

This will allow for a focus on costs and funding for emergency management, training and infrastructure. This should not interrupt existing shipments and should be phased in for future campaigns.

DOE must not pre-determine a specific mode. In selecting a mode DOE should consider the local community impacts, community impacts along the corridor, and environmental justice. Alternative modes should be considered based on risk analysis, life cycle cost and benefits.

Third Session

The breakout group revised its statements based upon the comments from the plenary session.

The plenary session's comment on the second draft statement on mode was:

- What is environmental justice?

The plenary session's comments on the second draft statement on routing were:

- How does it pertain to warheads, pits, is it intended for classified items?
- DOE will not allow us to do this, will clarify it does not apply to classified shipments. (National security)
- Clarifications
- Put time frame on it
- Clean up grammar
- Consistent definition of radiological to radioactive

Final Statements

Routes for radioactive materials/wastes should be pre-negotiated using a model that allows for:

- The identification of proposed routes by DOE based on a comprehensive risk analysis that considers radiological and non-radiological hazards
- An opportunity for states/tribes/local government and the public to review and propose alternative routes
- Future changes in route alternatives and infrastructure using the model
- Consideration of existing routes based on safety and cost.

This should not interrupt existing shipments.

DOE must not pre-determine a specific mode. In selecting a mode DOE should consider the local community impacts, community impacts along the corridor, and environmental justice. Alternative modes should be considered based on risk analysis and life cycle cost/benefits.

Summary of the Packaging, Safety, and Risk Assessment Breakout Group

Participants

Name	SSAB or Affiliation	Comments
Wendy Green Lowe M.J. Byrne		Facilitator Recorder
Linda Andrews	professional driver for TRISM	Resource Person
John Blakley	Pantex Plant CAB	SSAB Member
Oliver Carroll	Environmental Advisory Group – Ontario	Observer
Marvin Clawson	Fernald CAB	SSAB Member
Delbert Cupp	professional driver for TRISM	Resource Person
Gerald DePoorter	Rocky Flats CAB	SSAB Member
Harold Heacock	Hanford CAB	SSAB Member
Jim Johnston	Northern New Mexico CAB	SSAB Member
Brady Lester	DOE – Oak Ridge	Resource Person
Kin Lo Frank Overby	Ontario Power Generation NTS CAB	Observer SSAB Member
Karen Patterson	Savannah River CAB	SSAB Member
Woody Russell	DOE-Idaho	Resource Person
Dave Rydalch	INEEL	SSAB Member
Bob Tabor	Fernald CAB	SSAB Member
Rikki Traylor	Oak Ridge SSAB	SSAB Member
Ruth Weiner	Sandia National Laboratory	

Identification of Issues During Plenary Session

The plenary session identified the following issues related to radioactive materials transportation packaging, safety, and risk assessment:

- New concepts for Type B packages
- Uniform/standard packages
- Uniform hazardous materials training
- Weather/road conditions should be addressed in the risk assessment process
- Intermodal transport
- Protocol should be established for bad weather
- New packages should be approved for radioactive materials with no approved packages
- Risk assessment should be based on real risks, not perceived risks
- Packages must be able to withstand changes in pressure that result from changes in altitude
- Communication is needed with the uninformed
- Safety testing should test to failure
- Safety records information should be made available to the public
- Packages should be tested under real conditions, not under computer simulations
- Risk assessment should be conducted during route selection
- Quality Assessment should occur by the manufacture of containers
- A central repository should be established for vendors and testing
- Life expectancy of packaging
- Look at all wastes comprehensively, not on a waste stream by waste stream basis
- Risk Assessment processes should consider Native American culture sites
- Risk education is needed
- There should be no changes in approved designs
- Drivers should have personal dosimetry equipment
- Drivers should have adequate health insurance
- Risk assessment should address cultural uses by Native Americans
- Safety at truck stops must ensure no risks are posed to others
- Notification of the public and for first responders is inadequate

First Session

In the first core topic discussion, the group began by going outside to look at the shipping containers that had been brought for demonstration purposes. Then, the group watched the video titled "The Transportation of Radioactive Materials." Finally, the group convened to begin deliberations.

After some discussion, the participants indicated that they understood all issues raised during the plenary session. The SSAB members were then given two dot labels each and asked to use the dot labels to indicate the issues they felt were most relevant and important. The following topics received the indicated number of dots:

- New concepts for Type B packages (1 dot)
- Uniform/standard packages (6 dots)
- Intermodal transport (4 dots)

- Communication is needed with the uninformed (2 dots)
- Risk assessment should be conducted during route selection (2 dots)
- A central repository should be established for vendors and testing (2 dots)
- Risk education is needed (3 dots)

First Draft Statements on Packaging, Safety, and Risk Assessment

Certain components of hazardous/radioactive materials/waste transportation (by mode) need to be standardized with the goals of enhancing safety and saving time and money. Those components include protocols, record storage and access, package testing, hazardous materials training, and packaging data and design.

The actual risks of transporting hazardous/radioactive materials/waste must be effectively and comprehensively communicated to the general public.

Second Session

During the core topic breakout session II, the packaging, safety, and risk assessment breakout group discussed the suggestions from the site-specific breakout groups and re-drafted the statements bases upon the suggestions.

The site-specific breakout groups' suggestions for the statements were:

1. Confusion regarding the inclusion of "(by mode)"
2. Use of the term protocols was unclear
3. Confusion regarding the addressing risk communication rather than risk assessment
4. Noted that stakeholders near DOE facilities are better informed than those along corridor routes

Second Draft Statements on Packaging, Safety, and Risk Assessment

Radioactive materials packaging and transportation protocols should be standardized (according to mode and destination) wherever possible.

Risk assessments for transportation of radioactive materials must be effectively explained and comprehensively communicated to the public, especially along the corridors (routes).

Third Session

The breakout group revised its statements based upon the comments from the plenary session.

The plenary session's comments on the second draft statements are:

- Clarify what is meant by "(according to mode and destination)"
- Include a reference to the waste acceptance criteria at destination sites/facilities
- Clarify that the transportation protocols should be all encompassing
- The following comments were noted regarding the second statement:
 - The term "effectively explained" is not good – smells like propaganda
 - The statement does not address risk assessment (core topic discussion did not stay within the assigned topic)
 - Clarify what should be explained

Final Statements

In order to enhance safety and to save time and money:

- The container system for the transportation of radioactive materials and waste should be standardized as much as possible within the waste acceptance criteria for the destination site or facility.
- Transportation protocols should be standardized whenever possible, irrespective of mode (truck, rail, or intermodal.)

The risks associated with the transportation of radioactive materials and waste should be estimated using up-to-date, independently validated methods. For purposes of education, the public should be encouraged to be actively involved from the beginning. The methods for assessing the risks of radioactive materials and waste transportation and the estimated risks should be communicated comprehensively to the public, especially along the corridors/routes.

Summary of the Stakeholder Involvement, Communication, and Education

Participants

Name	SSAB or Affiliation	Comments
Victoria Conston		Facilitator
Ann DuBois		Recorder
Jim Bondurant	INEEL	SSAB Member
Nate Cantly	Pantex CAB	SSAB Member
George Chandler	Northern New Mexico CAB	SSAB Member
Lisa Crawford	Fernald CAB	SSAB Member
Tom Gorman	New Mexico State Emergency Preparedness	Resource Person
Judith Holm	DOE Transportation Program	Resource Person
Brendolyn Jenkins	Savannah River Site SSAB	SSAB Member
Susan Arnold Kaplan	Oak Ridge SSAB	SSAB Member
Page Knight	Hanford CAB	SSAB Member
Deborah Milnes	Envirocare	Observer
Graham Mitchell	Ohio EPA	Resource Person
Brian Taylor	Rocky Flats CAB	SSAB Member
Michael Williams	NTS CAB	SSAB Member
Monte Wilson	INEEL	SSAB Member

First Session

The stakeholder involvement, communication, and education breakout group discussed the following issues:

- Process of stakeholder input
- Misperceptions of people (i.e. those who watched *Atomic Train*)
- Stakeholder's comments not influencing DOE's decisions
- Boards need to have continual dialogue with DOE
- Developing a communication strategy
- Language of documents
- Ignoring of some players, i.e. Tribes
- Stakeholders reaching out to the public
- DOE's credibility

Final Statements

With regard to the transportation of radioactive waste and materials, DOE should facilitate partnerships to develop and implement two-way education and information sharing with and among:

- The public
- Tribal nations
- Educational institutions and officials
- Federal, state, and local agencies, and both elected and other officials
- The media
- DOE Headquarters, Field Offices, and Sites

To better facilitate these partnerships, it is especially important for DOE Headquarters, Field Offices, sites, and programs to communicate effectively with and among each other.

The risks associated with the transportation of radioactive materials and waste should be estimated using up-to-date, independently validated methods. For purposes of education, the public should be encouraged to be actively involved from the beginning. The methods for assessing the risks of radioactive materials and waste transportation and the estimated risks should be communicated comprehensively to the public, especially along the corridors/routes.

During the conceptual stages of planning, DOE should begin a dialogue with the public, Tribal nations, and other impacted parties whenever developing policy initiatives, planning, and implementing activities for the transportation of radioactive waste and materials. This dialogue must be continued throughout the decision-making process.

Summary of the Notification and Emergency Response

Participants

Name	SSAB or Affiliation	Comments
Ken Korkia		Facilitator
Earle Dixon		Recorder
Jim Bierer	Fernald SSAB	SSAB member
Denise Brooks	State of Texas (Pantex)	Observer
Pam Brown	Hanford SSAB	SSAB member
Shawn Burke	Rocky Flats CAB	SSAB member
Diana Cahall	Portsmouth stakeholder	
Randy Gordon	Oak Ridge SSAB	SSAB member
Kelly Kelkenberg	DOE- Headquarters	Resource Person
James Leach	NNMCAB	SSAB member
Hal Marchand	Sandia CAB	SSAB member
Anna Martinez	DOE-Rocky Flats	Observer
Ken Moore	Fernald SSAB	SSAB member
Richard Nocilla	NTS SSAB	SSAB member
K.R. Ramakrishnan	Pantex SSAB	SSAB member
Chuck Rice	INEEL SSAB	SSAB member
George Ruberg	Urban Energy And	Observer
P.K. Smith	Transportation Corp. Savannah River Site SSAB	SSAB member
Gary Stegner	DOE-Fernald	
Allan Turner	Colorado State Highway Patrol	Resource Person
Elgan H. Usrey		Resource Person
Richard Waples	US Army Corp Engineer	Observer

First Session

The notification and emergency response breakout group discussed the following issues:

- Notification to whom and for what purpose
- No standardized notification systems throughout the states
- Hazardous and nuclear response capabilities
- Rural vs. urban emergency response capabilities
- Escorts for low-level waste and high-level waste
- State, local, and federal responsibility to train emergency response personnel

First Draft Statements on Emergency Response and Notification

Should an event or incident occur during a nuclear waste or materials shipment, the availability of a professionally trained and well-equipped first response team is vital.

Funding for first response should be the responsibility of the generating/shipping sites through escrowed accounts prorated to the states doing the transportation corridor.

DOE, or other responsible entities (such as U.S. Enrichment Corp.) should provide funding and resources for first responders along the transportation corridor.

States should consider shipments with an escort to serve as a first responder.

Notification of nuclear waste and materials shipments, and notification of the occurrence of a shipping event or incident, should be a standardized approach, uniform across states and local communities.

Notification should be tailored to correlate with the level of hazard of the material being shipped. DOE should take advantage of technologies such as GPS to facilitate uniform and universal notification.

Second Session

During the core topic breakout session II, the emergency response and notification breakout group discussed the suggestions from the site-specific breakout groups and re-drafted the statements.

Most of the comments provided by the individual SSABs were related to the choice of words used and minor adjustments were made to the recommendations. Other substantive comments and subsequent changes made to the recommendations were as follows:

- There was concern about the specificity in naming the U.S. Enrichment Corporation as an entity that should provide funding for first responders. The reference was dropped.
- There was concern with the use of the term “first responders,” so the words “emergency response team” were used instead.

Appendix D

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Summary of Evaluations



Summary of SSAB Transportation Workshop

Total number of evaluations received — 34

What Did Participants Enjoy Most?

Without a doubt, the overwhelming favorite thing about the workshop to the participants was the interaction with other boards; they liked both the small and large groups, and the networking in the halls with each other. “Knowledge shared and gained” was also another comment received.

Other items mentioned, each at the same approximate frequency, include:

- Transportation skit
- Tour
- Seeing TRISM truck and speaking to drivers
- Format of workshop
- Location and meeting schedule
- Resource book and fact sheets
- Reception hosted by Fluor Daniel Fernald
- Ability to leave meeting with a product
- FCAB’s ownership of planning for workshop

What did participants enjoy least?

Without a doubt, paying \$15.00 for the sandwich buffet at lunch on Saturday! A reasonably close second was lack of coffee, water and tea during breaks, as originally promised by hotel.

Other items mentioned, in decreasing order of frequency, were:

- Skit went on too long/was inadequately rehearsed; questions were not properly controlled.
- The need of some participants to “hog” the process; “nitpicking.”
- Two mentions of a small group session where the facilitator was negative and “controlling.”
- Concern that some “resource persons” were given too much leeway to help craft the stakeholder statements; this individual felt some experts indulged in “soliloquies” during small group sessions.
- Fact that meeting occurred over a weekend; lack of time to sightsee in Cincinnati.
- Inability of some groups to focus on their assigned core topics.
- Lack of concern by participants for safety, cost and schedule.
- Meetings started too early!
- Fact that the chair for “tribal representative” during transportation skit was empty and DOE had not bothered to see someone was there to fill it!

I found the Resource Books to be:

Comments were overwhelmingly positive; the only complaint was that the books would have been even more useful had they been available prior to the meeting.

To improve the quality of this workshop I would:

- Give us more coffee and water and a cheaper Saturday lunch!
- Post a notice in each small group location identifying the specific roles or SSAB members and resource people; exercise better control of small groups.
- Keep skit short; provide a flowchart for it, use real script, and don't allow questions until afterwards.
- Try to release resource book before the workshop.
- Incorporate lessons learned into the next workshop.
- Encourage DOE leadership to attend the entire workshop.
- Newer members of the SSABs seemed to be quiet and were not encouraged by their leadership to speak up. "Oldtimers" should not be permitted to dominate the discussions.
- Define objectives before workshop, so people can prepare. (This had been done; the individual may have been a brand new SSAB member.)
- Identify entertainment options for participants in the evenings.
- Provide more time for discussion groups, perhaps allowing a slot for each SSAB to speak on each discussion topic.
- Emphasize education; de-emphasize formulation of recommendations.
- Have fewer participants from each site; then allow more time for inter-site team-building.
- Make sure local government representatives are included.

General Comments:

- Overwhelming majority considered organization and format of workshop to be excellent.
- "I have obtained some ideas which may make our CAB more useful to our public."
- "I appreciate that non-SSAB members were welcome to participate."
- Lunch was over-priced. On the other hand, hotel accommodations were very fine.
- More such workshops should be held, and should involve more community people.
- Thanks for the Fernald tour!
- Reception was extremely well done.
- Attendance and participation by DOE-HQ was appreciated.
- "Well-facilitated; excellent working atmosphere, BUT would have much appreciated being seated at a table with space for note-taking, beverage, etc."
- Tom Wagner made people feel welcome, as did the rest of the Fernald people.
- Appreciated opportunity to view activities as an observer.
- Schedule was possibly too aggressive. "Ground rules were a deterrent; if I had known how observers were regarded, I probably would not have come."
- Need reality check from DOE as to what they'll do with this information.
- "It is great that the CABs are coming together and discussing topics common to all."
- "We need to track the status of the statements we generated."
- "This kind of meeting goes a long way towards making stakeholders feel we have some influence in DOE activities impacting our communities."
- "A good beginning — if it influences DOE policy, then it has been worth the time and effort."