

Rail Planning Timeline: By Responsible Party

Rev. 4.0, November 2006

Timeframe	Offeror/Agent	FRA	Railroad(s)	Other
Post Shipment	<ul style="list-style-type: none"> • DOE conducts Lessons Learned Review. 			
During Shipment(s)	<ul style="list-style-type: none"> • The offeror (shipper) will ensure that the appropriate FRA point of contact is notified of any changes¹ in the transportation schedule upon confirmation of the change (modification of SCOP OI-4). • DOE will notify the state Governors or designees and designated tribal points of contact by telephone in the event of schedule changes greater than six hours (DOE Manual 8.2.1). • In the event of a substantial unanticipated delay en route (e.g., greater than 2 hours), the affected states and tribes will be notified of the event by TRANSCOM.² TRANSCOM will notify the affected states and tribes once the train is again moving (DOE Manual 9.2.1.a).³ • DOE will call the 24-hour state and tribal emergency contacts two hours prior to a shipment entering the state's or tribe's jurisdiction (DOE 2003). 	<ul style="list-style-type: none"> • FRA will station appropriate personnel in the rail carriers' dispatching center(s) during the duration of the actual movement of the first shipment to conduct oversight duties of the rail carrier dispatching center operations during periods of actual shipment operations (SCOP OI-2).^{4,5} • FRA will ensure that the two-way End-of-Train device remains in place and operational by requiring it to be checked at each crew change point along the route (SCOP OI-7).⁶ 	<ul style="list-style-type: none"> • Railroads will conduct a point-of-origin inspection of the consist. 	<ul style="list-style-type: none"> • State inspectors will conduct en route inspections of the casks and consist, as required by state law, regulation, or policy (State SOPs).⁷
Less Than 12 Hours Before SoS	<ul style="list-style-type: none"> • DOE and carriers will assess weather conditions along the route (Western State Expectations for WIPP Rail Shipments, DOE Manual 9.2.1.a,⁸ standard carrier operating practices). • DOE will provide a copy of the radiological survey and other characterization data to each State authority on the route, the rail carrier operations center(s), and the escort(s) prior to departure of the shipment from the point of origin (Mound T Plan).⁹ • DOE will notify the state Governors or designees and designated tribal points of contact by telephone in the event of departure schedule changes greater 	<ul style="list-style-type: none"> • FRA will verify that the two-way End-of-Train device is in place and operational at the point of origin (SCOP OI-7). • FRA will ensure that the train crews are familiar with the regulatory requirements for two-way End-of-Train devices contained in 49 CFR Part 232 (SCOP OI-7).¹⁰ 	<ul style="list-style-type: none"> • DOE and carriers will assess weather conditions along the route (Western State Expectations for WIPP Rail Shipments, DOE Manual 9.2.1.a,¹¹ standard carrier operating practices). 	<ul style="list-style-type: none"> • State inspectors will conduct a point-of-origin inspection of the casks and consist, if not already done (State SOPs).¹²

	than six hours (DOE Manual 8.2.1).			
At Least 12 Hours Before SoS			<ul style="list-style-type: none"> If the outside dimensions of the cask cars exceed the established high/wide clearance for the rail industry (i.e. width greater than 12' wide), then all trains that will be operating along the particular corridor during the time of this shipment must be notified about the presence of a wide load entering the railroad's mainline. This is to ensure that a train crew operating a train in the opposing direction that may also have a wide load is alerted to any wide loads that they must meet. For instance, if an opposing train has a 14' wide load meeting a 12' wide load then the train crew must notify the train dispatcher and establish a meeting place wide enough for both trains to pass each other. 	
At Least 24 Hours Before SoS	<ul style="list-style-type: none"> DOE will ensure that shipments are inspected prior to departure. These inspections may be performed by Federal, State, or carrier inspectors and will be conducted to ensure compliance with applicable Federal and State regulations, Association of American Railroads rules, and industry standards (DOE Manual, 11.3.1). DOE will confirm redundant communication systems are available and operational on the equipment in the train occupied by personnel (e.g., TRANSCOM, satellite phones).¹³ DOE will ensure that TRANSCOM (or other tracking system) is installed on the train, tested, and operational. DOE will also ensure that additional TRANSCOM systems and replacement parts are available on the train in case of primary system failure and that escort personnel on board the train have appropriate training in TRANSCOM (or other tracking system). 	<ul style="list-style-type: none"> FRA will ensure that FRA Motive, Power & Equipment and HazMat inspectors are on the scene at the rail point of origin (SCOP OI-4).¹⁴ FRA will conduct inspections of the rail cars and locomotives¹⁵ used for each shipment to assure compliance with applicable equipment safety standards and that appropriate corrective measures, if required, have been implemented prior to shipment (SCOP OI-4). FRA will conduct inspections of the rail cars carrying the casks to assure compliance with the applicable DOT regulatory safety standards for the transportation of radioactive materials (SCOP OI-4). 		<ul style="list-style-type: none"> State inspectors will conduct a point-of-origin inspection of the casks and consist (State SOPs).¹⁶
At Least 7 Working Days before SoS	<ul style="list-style-type: none"> DOE will provide written shipment notification to state points of contact (NRC Regulations). Upon prior request by the states, DOE will provide the states with detailed 			

	<p>information on the spent fuel to be shipped, including isotopic mix.</p> <ul style="list-style-type: none"> The offerer or designated agent will provide the states, tribes, and involved agencies with updated names and numbers of the designated points of contact for each state and tribal emergency management or law enforcement agency, as applicable, along the designated routes (modification of SCOP GC-1). 			
At Least 15 Days before SoS	<ul style="list-style-type: none"> DOE will provide FRA with the anticipated timeline for the first shipment from any specific rail point of origin. The offeror will also provide FRA with anticipated crew change and/or interchange locations (if applicable) along the designated routes (modification of SCOP OI-2).¹⁷ DOE will coordinate with the individual railroad carriers to ensure non-railroad personnel riding the train have received railroad safety training according to carrier protocol, have signed the appropriate waivers, that they have required equipment and supplies (boots, hard hats, vests, name badging, hearing protection) and have copies of the state permits. 			<ul style="list-style-type: none"> Affected states will make their request to DOE for detailed information (e.g., isotopic mix) on the spent fuel to be shipped.
At Least 30 Days before SoS	<ul style="list-style-type: none"> DOE will coordinate with the rail carrier, FRA, and appropriate State, local and tribal entities during the planning process to determine the personnel necessary, if any, who in addition to the train crew, will actually accompany the shipment (i.e., ride the train) (modification of SCOP OI-5).¹⁸ DOE will ensure that all state fees have been paid and permits received. DOE will conduct a dry run to test normal and abnormal operations (e.g., delays, protesters, and minor derailment). The dry run will include, at a minimum, the shipper, carrier, federal and state agencies, and tribes. 		<ul style="list-style-type: none"> Rail contractors will ensure that train crews are proficient with ECP brakes, in addition to other railroad operating requirements. 	<ul style="list-style-type: none"> States/tribes provide DOE a list of names (and any other required information) for each state/tribal person requesting origin facility access for inspections.
Eight Weeks before SoS	<ul style="list-style-type: none"> DOE will provide states and Tribes with an 8-week projected schedule (which will be updated each subsequent week), to include point of origin, point 			

	of destination, carrier(s), route, timeline, anticipated crew change and/or interchange locations (if applicable), and other pertinent information (States' Expectations for DOE Transportation Practices; SRG comments on the SCOP).			
At Least 60 Days before SoS				<ul style="list-style-type: none"> Purchasers provide detailed information to DOE on SNF selected for delivery (Standard Contract 10 CFR 961.11).
At least 90 Days before SoS	<ul style="list-style-type: none"> DOE will coordinate with FRA, rail security, State, local and tribal law enforcement and emergency response agency representatives to develop criteria for security zones along the designated routes (modification of SCOP S-2).¹⁹ DOE will develop a contingency plan for the shipments identifying actions to be taken in case of unexpected problems or issues with things such as: paperwork, placards, inspections, security, TRANSCOM, personnel, equipment, etc.²⁰ 		<ul style="list-style-type: none"> The carrier will provide DOE with a transportation plan identifying its activities to implement the requirements described in DOE's transportation plan. DOE will then submit the draft plan for external review by the States and Tribes (FRR T Plan; States' Expectations for DOE Transportation Practices).²¹ The carrier should notify DOE in the event of a <u>planned</u> track outage.²² 	
At least Six Months before SoS	<ul style="list-style-type: none"> DOE will finalize its transportation plan, which will include a communications plan and an emergency management plan (States' Expectations for DOE Transportation Practices; EM Guidance Attachment 2). DOE will seek NRC approval for the shipping routes (DOE Manual 5.2.1.a.5 and 5.3.1.a.4.a). DOE coordinates with FRA to document track inspections, infrastructure inspections, geometry car inspections, crossing inspections, etc., along the preferred suite of routes. DOE develops an operational checklist to ensure all railroad operations, communications and coordination activities are completed and roles/responsibilities assigned. DOE will provide TRANSCOM training, software, and passwords to the states and tribes that do not have it (States' Expectations for DOE Transportation 			<ul style="list-style-type: none"> States and tribes will provide DOE with special dates/events to assist with schedule development (West Valley T Plan). The Purchaser shall arrange for, and provide, all preparation, packaging, required inspections, and loading activities necessary for the transportation of SNF and/or HLW to the DOE facility. The Purchaser shall notify DOE of such activities sixty (60) days prior to the commencement of such [preparatory] activities. The preparatory activities by the Purchaser shall be made in accordance with all applicable laws and regulations relating to the Purchaser's responsibilities hereunder. DOE may designate a representative to observe the preparatory activities conducted by the Purchaser at the Purchaser's site, and the Purchaser shall afford access to such representative (Standard Contract 10 CFR 961.11).

	<p>Practices).</p> <ul style="list-style-type: none"> • DOE will open its operations center (eight months prior to shipment) (DOE 1995).²³ • DOE will have in place contracts for rail carrier services (eight months prior to shipment) (DOE 1995).²⁴ 			
No more than six months before SoS		<ul style="list-style-type: none"> • FRA will arrange for the rail carriers' or FRA's track geometry cars to operate over the designated route as close as possible to the date of the rail shipment while allowing time for completing required repairs to the track to ensure regulatory compliance; evaluate the data from the track geometry car's run over the designated route and verify that any required repairs or corrections are made; notify appropriate DOE representatives of any problems that develop which may affect the use of the designated route or possibly cause a delay in the scheduled rail movements (SCOP RII-2). 	<ul style="list-style-type: none"> • Carriers will ensure main track on "Key Routes" is inspected by rail defect detection and track geometry inspection cars or any equivalent level of inspection no less than two times each year (OT-55 T.B.2). 	
Nine months before SoS	<ul style="list-style-type: none"> • DOE will begin system testing to provide time to identify and resolve any potential operational difficulties (DOE 1995). 			
No more than one year before SoS		<ul style="list-style-type: none"> • FRA will conduct routine inspections of the track and signal system along the designated routes far enough in advance of the shipment to ensure that the entire route is inspected and any deficiencies corrected; determine the interval for conducting follow up inspections along the designated routes based on the frequency of the shipments, documented information obtained from routine inspections, Safety Assurance and Compliance Program (SACP) findings concerning track and signal system safety issues and other appropriate information sources (SCOP RII-1). 	<ul style="list-style-type: none"> • Carriers will ensure sidings on "Key Routes" are inspected by rail defect detection and track geometry inspection cars or any equivalent level of inspection no less than one time each year; and main track and sidings will have periodic track inspections that will identify cracks or breaks in joint bars (OT-55 T.B.2). 	
At least one year before SoS	<ul style="list-style-type: none"> • DOE will develop campaign plans (DOE 1995). • DOE will provide information to the Prospective Shipment Module. This provides the initial notification to the States and Tribes about upcoming 			<ul style="list-style-type: none"> • Purchasers will provide DOE with Final Delivery Schedules (FDS) not less than 12 months prior to delivery date specified therein (FDS subject to DOE approval) (Standard Contract 10 CFR 961.11).

	<p>shipments (EM Guidance Attachment 2).²⁵</p> <ul style="list-style-type: none"> • DOE will complete first-year site-specific servicing plans for each shipping site (DOE 1995). 			
At least two years before SoS	<ul style="list-style-type: none"> • DOE will begin activities to procure rail shipping casks (30 months prior to shipment) (DOE 1995). • DOE will begin work on developing the detailed requirements and the format for a campaign plan, including developing specific checklists of required plan information, plan formats, points of coordination, and hardware and software requirements (30 months prior to shipment)²⁶ (DOE 1995). • DOE will conduct preliminary work to define the requirements and scope of the Transportation System testing needed to initiate shipping (30 months prior to shipment) (DOE 1995). • DOE will begin negotiations with the railroads (DOE 1995). • DOE will develop the requirements for the operations center (DOE 1995). • DOE will begin preparing first-year site-specific servicing plans for each shipping site (DOE 1995). • DOE will develop detailed emergency response plans in support of the Federal Radiological Emergency Response Plan (DOE 1995). The plans must be written, coordinated with states and tribes, approved, and tested prior to shipments beginning. 			<ul style="list-style-type: none"> • States/tribes, in cooperation with DOE, will begin outreach activities (States' Expectations for DOE Transportation Practices). • States will begin conducting training exercises. • The states will assess the adequacy of their own emergency response plans for handling emergency response to incidents involving radioactive materials shipments.
Three years before SoS	<ul style="list-style-type: none"> • DOE will release for comment a draft transportation plan, which will include a communications plan and an emergency management plan (States' Expectations for DOE Transportation Practices). • DOE will provide Section 180(c) funds and technical assistance to states and tribes for emergency response planning and training (States' 	<ul style="list-style-type: none"> • FRA, DOE, the offeror or agent and the rail carriers will coordinate during the planning stages of each shipment to ensure that track classification information and criteria are considered in the route selection process (SCOP OI-6). • FRA will establish a "SCOP team" within FRA consisting of appropriate FRA headquarters and field personnel, 	•	•

	<p>Expectations for DOE Transportation Practices).²⁷</p> <ul style="list-style-type: none"> • DOE will provide basic shipment information (routes, modes, expected numbers of shipments) to the states and tribes. This notification would include general, not "safeguards" information²⁸ (States' Expectations for DOE Transportation Practices). • DOE will coordinate with the FBI, CIA, FRA, railroad security, State, local, and tribal law enforcement and other personnel (e.g., Governors' designees) on security planning for shipments (modification of SCOP S-1). • DOE will establish a small working group to examine the options for first year waste acceptance as well as to conduct long-range planning for the second year and beyond (DOE 1995). 	<p>offeror personnel, state and tribal representatives, and railroad management and labor representatives to coordinate activities associated with rail shipments (modification of SCOP MISC-3).</p> <ul style="list-style-type: none"> • FRA will coordinate efforts with the offerer, DOE and the rail carrier, as appropriate, to review emergency response plans and recommend modifications, if necessary (SCOP ER-2). 		
At least four years before SoS	<ul style="list-style-type: none"> • DOE will designate shipping routes for each origin location. 			
At least five years before SoS				<ul style="list-style-type: none"> • The Purchaser will submit to DOE the delivery commitment schedule(s) identifying all spent fuel and/or high-level waste the Purchaser wishes to deliver to DOE beginning sixty-three (63) months thereafter (DCS subject to DOE approval) (Standard Contract).
"Prior to the First Shipment" (indeterminate timeframe)	<ul style="list-style-type: none"> • DOE shall arrange for, and provide, a cask(s) and all necessary transportation of the SNF and/or HLW from the Purchaser's site to the DOE facility. Such cask(s) shall be furnished sufficiently in advance to accommodate scheduled deliveries (Standard Contract 10 CFR 961.11). • Origin and destination sites complete training in loading and securing casks onto railcars and removing casks from railcars²⁹. • DOE will verify that rail carrier emergency response personnel and train crews have received the appropriate levels of training (modification of SCOP ER-1). 	<ul style="list-style-type: none"> • FRA will station Operating Practices personnel in the rail carriers' dispatching centers to conduct oversight duties for some initial shipments on designated routes, and will review dispatching procedures at least 90 days prior to subsequent shipments³² (SCOP OI-2). • FRA will conduct the reviews necessary to ensure that all locomotive engineers who are used for the shipments meet the Locomotive Engineer Certification requirements; conduct inspections of the hazardous materials training records for the carriers' train crew personnel; review each carrier's efficiency testing procedures, in association with the designated routes for the shipment; during the planning stages, coordinate 	<ul style="list-style-type: none"> • Railroads will assist in implementing TRANSCAER®, a system-wide community outreach program to improve community awareness, emergency planning and incident response for the transportation of hazardous materials. Objectives of TRANSCAER® are as follows: • Demonstrate the continuing commitment of chemical manufacturers and transporters to the safe transportation of hazardous materials; Improve the relationship between manufacturers, carriers and local officials of communities through which hazardous materials are transported; • When requested, assist Local Emergency Planning Committees (LEPC's) in assessing the hazardous 	

	<ul style="list-style-type: none"> • The offeror will ensure that the offerors' Operations Plan includes criteria for providing the train crews transporting the shipment with a radioactive materials awareness information safety briefing. FRA will perform liaison and assistance functions with the rail industry and verify that requisite training/briefings have been performed; assist DOE, the offeror or agent, in the development of the content and implementation of the training and safety briefings (SCOP ER-1).³⁰ • DOE – working with FRA – if necessary,³¹ will ensure that specific memoranda of understanding are developed between the states and the rail carriers, providing for access to railroad property by state and local responders and clearly delineating private and public responsibilities and defining the approach to be taken in the event of a rail incident. The memoranda shall also specify methods that the carriers will use to transport emergency responders to the scene of an incident, if necessary in areas where the track is not readily accessible by vehicle or in the event of weather conditions that impede travel by vehicle (States' Expectations for DOE Transportation Practices). 	<p>with the appropriate DOE Program Office, offeror or agent thereof, rail carriers and State, local and tribal entities on other potential viable alternatives that could be considered for implementation to further ensure a high degree of confidence in the train crews operating the trains (SCOP OI-1).</p> <ul style="list-style-type: none"> • FRA will conduct evaluations of the rail carrier's bridge inspection and management practices to identify any program weaknesses that could affect public safety and ensure corrective action; conduct visual observation of the bridges on the designated routes during routine track inspections over the designated route; conduct reviews of the rail carrier's latest inspection and maintenance reports for the bridges on the designated routes, ensure that the appropriate DOE or offeror representatives are notified of any situations that may affect the shipment schedule or use of the designated route (SCOP RII-3). • FRA will coordinate with the rail carrier to ensure that a rail flaw detection vehicle is operated over the entire designated rail route; conduct reviews of the rail flaw detection vehicle data for operations conducted over the designated route; ensure that the appropriate DOE or offeror representatives are notified of any situations that may affect the shipment schedule or use of the designated route (SCOP RII-4).³³. • FRA will, upon request, prepare an accident prediction model for the highway-rail grade crossings along the designated route; evaluate the accident prediction model results for clarification; assist the DOE in distributing the information to, and coordinating with, the appropriate State, local and tribal agencies along the route in a timely manner for planning purposes (modification of SCOP GC-1). • FRA will determine the number of active highway-rail grade crossing 	<p>materials moving through their communities and the safeguards that are in place to protect against unintentional releases;</p> <ul style="list-style-type: none"> • Assist LEPC's in developing emergency plans to cope with hazardous materials transportation incidents; • Assist community response organizations in preparations for responding to hazardous materials incidents (OT-55 [most current edition], V). • In addition to all other railroad operating requirements, crews on shall be familiar with the following: • Monitoring systems • Monitored operating limits • Reasons the operating limits are important and what they mean: If the assigned train crew is not trained as required for this service, a person must be in the locomotive who is familiar with the HLRM train operation and the railroad operating requirements and who is authorized to instruct the crew. (AAR Manual of Standards and Recommended Practices Car Construction Fundamentals and Details Standard S-2043 APPENDIX B ADOPTED: 2005) 	
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		<p>warning systems that exist along the designated route; conduct inspections of all active systems at highway-rail grade crossings along the route that are considered to have a high potential for a grade crossing accident; conduct operational compliance checks of the active highway-rail grade crossing warning systems along the designated route to verify proper operation; verify that any deficiencies noted as a result of the inspections are corrected (SCOP GC-2).</p> <ul style="list-style-type: none"> FRA will promote Operation Lifesaver (OL) training along the designated route based upon a prioritization principle of those areas along the route where data show an elevated highway-rail grade crossing accident/incident rate; coordinate with the offeror and appropriate State and local agencies along the route to determine the feasibility of providing OL “train-the-trainer” training to appropriate State and local representatives; make available to the offeror FRA’s ability to provide presentations on highway-rail grade crossing safety at “town meetings” that could be held in communities along the designated route (SCOP GC-3). 		
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¹ The SCOP states that the offeror will ensure that FRA is notified of any “delays” in the schedule. Because the West Valley spent fuel shipment was significantly ahead of schedule, the work group recommends revising the practice to cover all changes to the schedule, not just delays.

² It is possible that OCRWM will not use TRANSCOM but rather an alternate, comparable system.

³ This provision is required for shipments by truck. The work group is considering its application to rail shipments.

⁴ FRA is currently revising its Safety Compliance Oversight Plan (SCOP) and has expressed concerns about having necessary staff available to perform all the duties as currently outlined in the SCOP.

⁵ For subsequent shipments, the SCOP says FRA will conduct a review of rail carriers’ dispatching procedures at least 90 days prior to shipment.

⁶ This may be dropped from the revised version of the SCOP.

⁷ Any inspections of the consist will be performed by FRA-certified state inspectors.

⁸ The original practice is required for shipments by truck. The work group, however, feels it is appropriate for rail shipments. It is also standard operating practice for rail carriers. What specific actions may be taken because of bad weather or what weather conditions may preclude shipment has yet to be determined.

⁹ The original practice referred only to the affected states. The work group expanded the practice to include the rail carrier operations center(s) and escort(s) accompanying the train.

¹⁰ There was a suggestion that crews will also need to be checked out on the mandated electronic pneumatic braking system (EPB). The check could be done within a few hours, but training would have to be a month or two before shipments.

¹¹ The original practice is required for shipments by truck. The work group, however, feels it is appropriate for rail shipments. It is also standard operating practice for rail carriers. What specific actions may be taken because of bad weather or what weather conditions may preclude shipment has yet to be determined.

¹² Any inspections of the consist will be performed by FRA-certified state inspectors.

¹³ One concern expressed is that if the escorts are the only ones with a satellite phone, routine and emergency communications between the train crew and the escorts will have to be carried out on open radio frequencies. These, of course, can be listened in to by anyone with a scanner and several sites upload near-live railroad radio channels to the net. If we require a secondary means of communication for the escorts, shouldn't we equip the train crew as well?

¹⁴ In states that have FRA-certified state rail inspectors, FRA may use state inspectors instead of FRA inspectors.

¹⁵ If DOE leases equipment from the railroads, it might not be possible to conduct an inspection 24 hours in advance. If it is dedicated equipment, owned by DOE, then the inspection could potentially be done even more than 24 hours in advance. One other aspect to consider though – for truck inspections under the CVSA – the inspection must occur no more than 48 hours prior to departure. While a similar program has not yet been designed/agreed to for rail shipments, there certainly is the possibility that there will also be a limitation on how far out an inspection can occur.

¹⁶ Any inspections of the consist will be performed by FRA-certified state inspectors.

¹⁷ If there is no material change to the anticipated timeline (e.g., carrier or route change) then the offeror or designated agent will not have to provide an anticipated timeline for subsequent shipments.

¹⁸ DOE will need to confirm this provision with the department's security personnel.

¹⁹ To the extent practicable, safe parking areas should be selected to provide adequate separation from other hazardous materials and to facilitate required security (DOE Manual 12.3).

²⁰ This may be a part of the transportation plan.

²¹ DOE's West Valley Emergency Preparedness Coordination Plan (final 2001) lists four documents as having been received for reference: New York/Pennsylvania Region of Genesee & Wyoming inc., Hazardous Materials Emergency Response Guide (Buffalo & Pittsburg Railroad, Inc.); Union Pacific Railroad Chemical Transportation Safety (Union Pacific Railroad); Community Awareness Planning Guide (CSX Transportation); and Norfolk Southern Railroad Emergency Plan (Norfolk Southern Railroad). The states received copies of these plans.

²² There may be many times when there is less than 90 days advance notice. The other issue is if railroads don't know what shipments are going when, whether it is incumbent on them to notify DOE of all planned outages.

²³ This timeframe is specified in DOE's 1995 contingency plan. However, the plan also states that the operations center should be open prior to testing, which will occur at nine months out.

²⁴ The rail carrier service contracts should probably be in place prior to testing. (See previous note regarding testing.)

²⁵ DOE Order 460.2a currently requires all DOE programs to follow the transportation practices manual (460.2-1), which calls for posting of information in the Prospective Shipments Module. The exception in DOE 460.2a for OCRWM covers only those activities regulated by the NRC and the DOT. In the event that OCRWM chooses not to use the PSM to provide states and tribes with long-term planning information, a suitable alternative mechanism would need to be developed.

²⁶ DOE wrote at the time, "By completing this relatively low-cost activity in advance, significant time will be saved if an early shipping date becomes a reality" (DOE 1995, p. 8).

²⁷ This step will take place three to five years prior to shipments beginning.

²⁸ This item is separate from the provision of safeguarded information to those in the states with a need to know.

²⁹ It was thought that an appropriate timeline for this item would be 6-9 months prior to SoS. Issues to be resolved, though, are the actual availability of casks and railcars for hands-on training.

³⁰ The appropriate timeline for this item is anywhere from the day of shipment to three months prior to shipment.

³¹ This item is something the states have requested in connection with large-scale rail shipping campaigns. It is possible this provision will be dropped if the states' comfort level in working with the railroads increases sufficiently.

³² The FRA is considering changing this element of the SCOP due to there being insufficient staff to complete this action for the first shipment from each point of origin.

³³ FRA will also verify that rail defects are repaired or operational restrictions are in place prior to SoS.