

**Comments on “Strawman” Report:
RAIL ROUTING PRACTICES AND PROPOSED ALTERNATIVES**

Number	Section	Comment	Response
RTG-1-AAR	SECTION II Safeguards Routing Regulations, Para. 2	<p>The NRC has identified five types of route characteristics that receive special consideration when NRC staff review routes for approval pursuant to 10 CFR 73: (1) routes through highly populated areas; (2) routes that would place the shipment or escort vehicle in a significantly disadvantageous position (for example, tunnels which would prevent the escort vehicle from maintaining continuous surveillance of the shipment vehicle);</p> <p>[Note this assumes a highway chase vehicle for rail. We expect security for rail shipments to be on the train with the shipment, and not a chase vehicle. Chase vehicles has their own inherent risk.]</p>	
RTG-2-AAR	SECTION II Safeguards Routing Regulations, Para. 2	<p>(3) routes with marginal safety design features (for example, two-lane routes or absence of guard rails);</p> <p>[Guard rails are not a railway feature.]</p>	
RTG-3-AAR	SECTION II Safeguards Routing Regulations, Para. 2	<p>(4) routes with limited rest and refueling locations;</p> <p>[Rest areas are not a railway feature.]</p>	
RTG-4-AAR	SECTION IV Para. 3	<p>In the past, DOE has required its rail carriers to (1) minimize time, distance, the number of carriers, and interchanges along the route; (2) use the best track class available for speed and safety; (3) use routes where public exposure to the shipment is minimized; (4) produce rail-routing printouts to help DOE to consider alternative routes; and (5) schedule shipments through populated areas during off-peak commuter hours.</p> <p>[I am not sure how feasible scheduling shipments during off peak commuter hours will be. If this type of operating guideline is used, we will have to assume dedicated trains, since we cannot be expected to hold other shipments to accommodate these operating guidelines].</p>	
RTG-5-AAR	SECTION V Para. 1	<p>However, unlike HRCQ shipments via truck, states have no formal <u>role</u> in determining routes for rail shipments.</p> <p>[regulatory mandated role maybe, but in fact it is my understanding that they are involved in the route planning process in actuality.]</p>	

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RTG-6-AAR	SECTION V Para. 4, No. 1	Promote safety and public acceptance of the shipping routes by making the federal government, not a private company, accountable for route selection; [This statement does not agree with the description above. According to the text above, routes are selected in conjunction with DOE, the railroads and other federal state and tribal authorities.]	
RTG-7-AAR	SECTION VI	Over the past two decades, stakeholders have proposed that DOT promulgate rail routing guidelines similar to the highway regulations in HM-164 to eliminate or reduce rail shipments of radioactive materials through highly populated areas [Reducing rail shipments of radioactive materials through highly populated areas should not be the objective, reducing transportation risk should be the objective. As discussed, the highest quality of track generally goes through major metropolitan areas, and there are not generally bypass tracks around these areas. Lots of switching and interchanges to try to avoid metropolitan areas has its own inherent risk, not to mention its associated cost].	
RTG-8-CSGMW	GENERAL	The paper seems to repeat the 1998 routing document. Is there another purpose to this paper? If so, what?	
RTG-9-CSGMW	GENERAL	Assuming there's a larger purpose to the paper, what is the "path forward" for completing it? The 1998 routing paper was the product of multiple authors. Will DOE ask the topic group members to work on select sections?	
RTG-10-CSGMW	SECTION II	It is a good idea to include a discussion of specific regulations, industry practices, and DOE's Radioactive Materials Transportation Practices. The paper should also make it clear that OCRWM is committed to selecting the routes for rail shipments to the repository.	
RTG-11-CSGMW	SECTION II	It might be useful to update the paragraph regarding "proposed legislation [that] would require DOT to promulgate rail routing guidelines." Have there been any more recent proposals?	
RTG-12-CSGMW	SECTION II	The paragraph regarding submittal of routing plans to the FRA might need clarification. Why would shippers submit their rail routes to the FRA for "safeguards review?" This would seem to be an NRC function, not FRA.	
RTG-13-CSGMW	SECTION IV	This section should make note of OCRWM's commitment to select the rail routes for shipping to the repository.	

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RTG-14-CSGMW	SECTION V	This section is largely complete. A possible addition would be to mention that rail shipments might face different constraints than truck shipments when it comes to rerouting. That is, rerouting might divert a shipment onto a lengthy segment that has not previously been used and, therefore, has not been adequately prepared. Routing also has ramifications for escorting, since vehicles shadowing a train will have a difficult time keeping up with a train traveling 50 mph.	
RTG-15-CSGMW	SECTION VI	Contrary to what is stated in the "purpose", this section does not "compare aspects of potential alternative regulatory regimes." Is this section to be added at a later date?	
RTG-16 -WGA	GENERAL	I agree with Ken Nile's assessment that the report is well written and identifies key routing issues for the states. Ken listed several expectations which western states have identified for selecting routes. WGA would request that any expectation not contained in the report be captured in some way in the next iteration of the report.	
RTG-17-WGA		While the Report urges DOE to take into consideration critical safety factors during the selection process, the Report should emphasize that safety is the key objective for route selection. In other words, safety should drive all DOE decision-making. In my view, the language contained in the "ideal route selection process" should be beefed up a bit.	
RTG-18-WIEB	SECTION V	I thought the section "State Involvement in and Perspectives on Route Selection" was well written and captures many of the key rail routing issues for the states.	
RTG-19-WIEB	SECTION V	The Western states have begun work on rail planning for WIPP shipments. Our draft section on routing includes several expectations, some of which are covered in the current draft, some of which are not.	
RTG-20-WIEB	SECTION V	A single designated route shall be selected for each shipping point to the WIPP site. The DOE-CBFO shall coordinate selection of the designated WIPP rail route with the affected states and tribes. If the identified route is not acceptable to the states, DOE-CBFO shall work with the carrier to identify a route that is acceptable.	
RTG-21-WIEB	SECTION V	DOE will specify designated routes in its rail transportation services contracts and related documents and require carriers to utilize only these specifically designated routes. The contracts shall clearly articulate the conditions under which route deviations may occur and the duties and responsibilities of the carrier and DOE in the event of a required deviation.	
RTG-22-WIEB	SECTION V	The route identification process shall be based upon the safety considerations. Track classification shall be considered when selecting routes for shipments. The route selection shall ensure that the highest rated track is used.	

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RTG-23-WIEB	SECTION V	Track not under central signal control, sometimes referred to as “dark track”, shall be avoided.	
RTG-24-WIEB	SECTION V	Provided that the safety considerations discussed are met, rail routes shall closely parallel existing highway routes where possible.	
RTG-25-WIEB	SECTION V	WIPP shipments shall only be routed through State and Tribal jurisdictions where DOE has provided technical assistance and funds for the purpose of training public safety officials and other emergency responders as provided under Section 16c of the LWA. This includes the provision of training for public safety officials and other emergency responders, implementation of the Regional Medical Preparedness Action Plan, implementation of public information programs and acquisition of equipment.	
RTG-26-WIEB	SECTION V	WIPP shipments should avoid classification yards as much as possible.	
RTG-27-WIEB	SECTION V	WIPP cars shall not be: 1) Humped, 2) Cut off while in motion; 3) Coupled into with more force than is necessary to complete the coupling; 4) Struck by any car moving of its own momentum, and 5) Each WIPP car shall be labeled “Do not hump or cut off car while in motion”.	
RTG-28-WIEB	SECTION V	There shall be no deviations from the designated routes except in emergency situations. No deviation shall be allowed without prior approval from DOE-CBFO and the affected states.	
RTG-29-WIPP	SECTION II Para. 1	Regulations like those for truck shipments do not exist for rail transport; instead, a shipper and rail carrier normally jointly plan the route considering such factors as starting and ending points, primary and alternate routes, track classification, highway and grade crossing safety, and infrastructure integrity.	
RTG-30-WIPP	SECTION II Para. 3	The shipper is required to send the rail plan to the NRC,...	
		[WIPP not covered by NRC for shipments]	
RTG-31-WIPP	SECTION II Para. 3	Railroads have used special trains for selected shipments that employ additional operational requirements; however, these specific requirements generally do not themselves affect routing of the shipments.	
		[This is a statement that will lead states to demand “dedicated” trains (cost impactive). These features can be acquired by contract wording.]	
RTG-32-WIPP	SECTION II – Safeguards Routing Regulations Para. 1	The NRC regulations incorporate DOT’s transportation rules; the NRC enforces the DOT regulations and its own simultaneously.	
		[The NRC may enforce rules on the licensee; however, DOT regulates the transportation while on the rail. 10 CFR 73.6 specifically exempts DOE from 10 CFR 26, 10 CFR 73.20, .25, .26, .27, .45, .70, and .72.]	

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RTG-33-WIPP	SECTION III Para 1	As the transportation service provider, the rail industry considers multiple factors when routing hazardous cargo, including radioactive material. Typically these factors include starting and ending points, the shortest distance/ time in transit, track classification, the amount of traffic, and external features such as bridge conditions relative to the weight of the shipment load. the shortest distance/time in transit primary and alternate routes, highway and grade crossing safety, and (if needed) bridge conditions relative to the weight of the shipment load infrastructure integrity.	
RTG-34-YMP	GENERAL	The unspoken premise of the paper is that something is wrong with the current system of routing RAM. I think we need a problem definition section. This would include a discussion of problems, if any, with past RAM shipments (and perhaps major HAZMAT shipment problems) and the routing practices that may have contributed to the problems. If we do find evidence of this, then we could proceed to develop improved practices. If there is no evidence that current practices have contributed or may contribute to a problem, then we could use the paper to inform stakeholders of how routes are chosen and why this approach is satisfactory.	
RTG-35-YMP	GENERAL	We should also have a section on the safety of shipments, using NRC studies as a basis. This should lead to the conclusion that the containers used for shipments provide safety regardless of the route selected.	
RTG-36-YMP	SECTION III	Section III should be expanded to contain an in depth discussion of "Key Routes" and the safety record of HAZMAT transport using these routes.	