

Hanford Advisory Board Draft Advice

Topic: Transportation Infrastructure Updates Safety Consideration

Authors: Bloom, Korenko & Holland

Originating Committee: Health, Safety & Environmental Protection

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Background

The Hanford Advisory Board (Board) understands that the U.S. Department of Energy (DOE) is currently focusing on updates to the Hanford Site infrastructure, including water, sewer, data, utilities, roads, and traffic safety. The Board is aware of the effort undertaken in 2010, by Transportations Solutions Incorporated, at the request of Mission Support Alliance to prepare a Hanford Vehicle Safety Assessment to evaluate the increasing site traffic issues. The study found that many two-lane arterial roads on site were operating in an over capacity and highly congested condition during the high peak traffic periods. Aggressive driving behaviors such as attempting to pass multiple vehicles in order to get in front of the “platoon” were also discussed in the report as a significant safety concern.

The report offered many recommendations to address traffic issues; some have been implemented and some have not. Two areas that were not discussed in the report were how road conditions impact the ability to effectively facilitate a safe site evacuation and the reduction of traffic volume through promotion of ride share or other public transportation. Additionally, subsequent to the report, changes in time reporting for non-exempt employees had been implemented with minimal allowance for tardiness, had not been evaluated for impact on traffic flow or safety.

Recognizing that the safe and environmentally conscious performance of work are fundamental core values of the Board, the safety risk to the workers and the surrounding community associated with the Hanford commute and associated congestion on site needs to be weighed. Additionally, a reduction in the number of vehicles traveling to and from Hanford daily would mitigate the impact on the environment and assist DOE in meeting sustainability goals. Reducing commute time also results in a more rested, alert workforce, which would reduce the probability of on-the-job accidents.

Ben-Franklin Transit, the local public transit agency, recently presented a report to the Board’s Health, Safety and Environmental Protection committee. Interesting facts contained in the presentation were that Ben-Franklin Transit currently provides 193 vans provided transportation to the site for over 1,600 site employees, eliminating over 1,400 vehicles from the daily 4,000+ vehicle commute. Over 14 million vehicle miles a year are saved and the need for over 1,400 parking spaces on site has been eliminated. Further encouragement of ride-share and public transit options has benefits to address demands on site infrastructure, traffic congestion and environmental impact associated with the on-site worker commute.

As reported on local radio stations, there were several accidents at Hanford due to black ice on December 21, 2015. Some were serious, involving overturned vehicles. The weather related notice that went out to the Hanford workforce was delayed and did not accurately reflect the road conditions to allow workers time to leave early. An updated notice was eventually issued reflecting degraded conditions but the notice was too late to impact the commute. Apparently, the road conditions were not

assessed via a drive down before the initial weather alert was issued. In addition, employees were told that if they were late they would not be reprimanded, but could charge vacation time. This could have been seen as a legitimate use of administrative leave by management.

The scope, complexity and seriousness of these transportation issues has already prompted the identification of a number of practical approaches DOE may consider as it addresses traffic infrastructure issues include:

Traffic reduction initiatives

- Set traffic reduction as a site-assessment objective and provide financial incentives to site contractors to reduce commuter traffic
- Define a metric to measure progress, such as cars per day and commute time
- Expand the partnership with the local transit agency to provide expanded van pool and potential bus service to the site
- Encourage the site contractors to use computer analysis to define potential groups of people that might want to form a ride share team

Infrastructure improvement initiatives

- Widen the onsite Road 4S between the Wye Barricade and the 200 Area to facilitate improved ability for a site evacuation
- Enhanced communication of changing road conditions with use of reader boards
- As suggested in the 2010 report:
 - Mitigate the bottlenecks at the barricades entering/exiting the site
 - Stagger the work schedules within and among the contractors.

Advice

- The Board advises DOE to implement safety and environmental improvements through commuter traffic reduction for itself and its contractors.
- The Board advises DOE to pursue improvements to infrastructure updates that facilitate a safer and timelier commute and improved response to emergency situations and consider the Board's suggestions as articulated above.
- The Board advises DOE to ensure that roads are physically inspected early in the morning to ensure accurate weather alerts.
- The Board advises DOE to encourage its contractors to allow employees sufficient administrative leave time in the event of changing hazardous road conditions.