

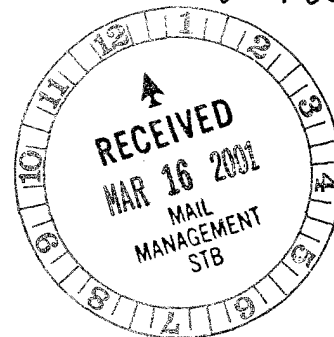
03/15/01

Office of the Secretary / Case Control Unit
STB Finance Docket No. 33407
Surface Transportation Board
1925 K Street N. W.
Washington, DC 20423-0001

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Office of the Secretary

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Subject: Supplemental Input to Original Submission

Ref. No 1: Letter dated 5 March 2001, Subject: Proposed Upgrade of DM&E Trackage in Olmsted County, Minnesota

Ref. No. 2: High-Speed Ground Transportation , Noise and Vibration Impact Assessment Manual; U. S. Department of Transportation , Federal Railroad Administration Report No. 293630-1, Dated December 1998.

To Whom It May Concern,

Below is supplemental information that was not included in my original submission Ref. No. 1 above. This supplemental information is in reference to the alleged vibration issues at the Mayo Clinic in regards to their MRI systems located in the Charlton building. These systems are located approximately 1200 feet from the DM&E tracks. There is a spur line switch in this area that could contribute to higher than average vibrations. I have applied the Generalized Vibration Assessment Procedures contained in Section 8.2 of the Noise and Vibration Impact Assessment Manual (Ref.: No. 2 above) to establish that the worst case vibration at the Charlton building would be 59.5 VdB. If the allowance for the building structure is added then the assessment vibration would fall to a conservative 52.5 VdB. The calculation follows:

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| • RMS Vib. Vel. Level @ 1000 feet (Figure 8-1, Ref.: No. 2) | 49 VdB |
| • Adjustment for speed of 50 MPH (Table 8-2, Ref.: No. 2) | -9.5 VdB |
| • Adjustment for flat wheels, bad track, switches (Table 8-2, Ref.: No. 2) | +10 VdB |
| • Adjustment for efficient ground propagation (Table 8-2, Ref.: No. 2) | +10 VdB |

Preliminary Worst Case Assessment Level	59.5 VdB
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| • A additional adjustment is made to the above calculation to allow for the Building Type. As noted in the Draft EIS (Decision ID No. 31255) the Mayo Charlton building is constructed on a sand base and is a very large building. Therefore the minimum adjustment of - 7 VdB for a 1-2 story commercial building as a conservative case is applied resulting in a Final Worst Case Assessment Level | 52.5 VdB |
| • Category 1 Impact Levels, Frequent or Infrequent events (Table 7-1, Ref.: No. 2) | 65 VdB |

Conclusion, the assessment level of 52.5 VdB is a minimum of 12.5 VdB below the threshold of 65 VdB for Category 1 Land Use. Therefore, it should be expected that vibrations from the upgraded

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track should not be classified as having impact potential on the MRI Systems in the Mayo Charlton Building MRI Systems.

It has been asserted by the Mayo Clinic that the upgraded track with the heavier coal trains passing will result in the systems being unusable. However, it is noted that in a recent article published in the Rochester Post Bulletin, Saturday 3 March 2001, Page 3A that a representative of the Mayo Clinic stated that the MRI systems are currently experiencing vibration induced errors, but it is noted that the errors are being induced from a variety of existing sources. The pertinent text of the article is reproduced below:

"Business near the DM&E route have major concerns about vibration's potential effects on sensitive equipment.

Mayo Clinic's central Magnetic Resonance Imaging (MRI) facility is about 1,000 feet from the tracks, on the first floor of the Charlton Building.

Mayo has 19 MRI units, said Dr. Joel Felmlee of the Radiology Department. Already, some of those are affected by vibration from passing trains, *trucks and cars*, from nearby *construction* and even from *slamming doors elsewhere in the building*, said Felmlee and others at Mayo.

Vibration shows up as flaws called "artifacts," on magnetic resonance images. Flaws may appear, at first glance, to be part of a patient's physical condition or may raise suspicion that something is wrong with an MRI unit.

Steve Swensen, chairman of Mayo's Radiology Department, said current vibration is infrequent enough that it has not been a serious problem. "

Because errors are currently induced from a variety of non-rail sources one must conclude that there is an existent problem that originates from improper installation of the systems. It would appear that due to the systems susceptibility to a variety of vibration inducing errors that the scanning portion of the systems should have been placed on vibration isolating platforms during initial installation. This is probably the best mitigation for elimination of all vibration induced errors in the MRI systems and would appear to be the responsibility of the Mayo Clinic.

Sincerely,



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