STB FD 33388 2-2-98 K 185492 3/5

and section 110(l) of the Act require that each State's SIP revision submitted under the Act be adopted by the State after reasonable notice and public hearing. The State of Indiana submitted a portion of the Lake and Porter Counties 15% ROP SIP revision on January 13, 1994. The SIP revision was reviewed by EPA to determine completeness shortly after submittal, in accordance with the completeness criteria set out at 40 CFR part 51, appendix V (1991), as amended by 57 FR 42216 (August 26, 1991). However, the submittal was deemed incomplete because the plan had not yet gone through public hearing and did not include fully adopted rules for all of the plan's control measures. Indiana held a public hearing on the plan on March 29, 1994. A summary of comments from that hearing and the Indiana Department of Environmental Management's (IDEM) response was submitted on July 5, 1994. IDEM sent a supplemental submittal on June 26, 1995, which included fully adopted rules for the Lake and Porter Counties 15% ROP plan. In a July 17, 1995, letter to Indiana, the State was notified that the SIP submittal was deemed complete.

III. Criteria for 15% ROP Approvals

The requirements for 15% ROP plans are found in section 182(b)(1) of the Act, and the following EPA guidance documents:

1. *Procedures for Preparing Emissions Projections*, EPA–450/4–91–019, Environmental Protection Agency, July 1991.

2. State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990; Proposed rule (57 FR 13498), **Federal Register**, April 16, 1992 (General Preamble).

3. "November 15, 1992, Deliverables for Reasonable Further Progress and Modeling Emission Inventories," memorandum from J. David Mobley, Edwin L. Meyer, and G. T. Helms, Office of Air Quality Planning and Standards, Environmental Protection Agency, August 7, 1992.

4. *Guidance on the Adjusted Base Year Emissions Inventory and the 1996 Target for the 15 Percent Rate of Progress Plans*, EPA–452/R–92–005, Environmental Protection Agency, October 1992.

5. "Quantification of Rule Effectiveness Improvements," memorandum from G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Office of Air Quality Planning and Standards, Environmental Protection Agency, October 1992.

6. *Guidance for Growth Factors, Projections, and Control Strategies for the 15 Percent Rate-of-Progress Plans*, EPA–452/R–93–002, March 1993.

7. "Correction to 'Guidance on the Adjusted Base Year Emissions Inventory and the 1996 Target for the 15 Percent Rate of Progress Plans'," memorandum from G.T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Office of Air Quality Planning and Standards, Environmental Protection Agency, March 2, 1993.

8. "15 Percent Rate-of-Progress Plans," memorandum from G.T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Office of Air Quality Planning and Standards, Environmental Protection Agency, March 16, 1993.

9. Guidance on the Relationship Between the 15 Percent Rate-of-Progress Plans and Other Provisions of the Clean Air Act, EPA–452/R–93–007, Environmental Protection Agency, May 1993.

10. "Credit Toward the 15 Percent Rate-of-Progress Reductions from Federal Measures," memorandum from G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Environmental Protection Agency, May 6, 1993.

11. *Guidance on Preparing Enforceable Regulations and Compliance Programs for the 15 Percent Rate-of-Progress Plans*, EPA–452/R–93–005, Environmental Protection Agency, June 1993.

12. "Correction Errata to the 15 Percent Rate-of-Progress Plan Guidance Series," memorandum from G. T. Helms, Chief, Ozone and Carbon Monoxide Programs Branch, Environmental Protection Agency, July 28, 1993.

13. "Early Implementation of Contingency Measures for Ozone and Carbon Monoxide (CO) Nonattainment Areas," memorandum from G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Environmental Protection Agency, August 13, 1993.

14. "Region III Questions on Emission Projections for the 15 Percent Rate-of-Progress Plans," memorandum from G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Office of Air Quality Planning and Standards, Environmental Protection Agency, August 17, 1993.

15. "Guidance on Issues Related to 15 Percent Rate-of-Progress Plans," memorandum from Michael H. Shapiro, Acting Assistant Administrator for Air and Radiation, Environmental Protection Agency, August 23, 1993.

16. "Credit Toward the 15 Percent Requirements from Architectural and Industrial Maintenance Coatings," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, Environmental Protection Agency, September 10, 1993.

17. "Reclassification of Areas to Nonattainment and 15 Percent Rate-of-Progress Plans," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, Environmental Protection Agency, September 20, 1993.

18. "Clarification of 'Guidance for Growth Factors, Projections and Control Strategies for the 15 Percent Rate of Progress Plans'," memorandum from G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Office of Air Quality Planning and Standards, Environmental Protection Agency, October 6, 1993.

19. "Review and Rulemaking on 15 Percent Rate-of-Progress Plans," memorandum from G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Office of Air Quality Planning and Standards, Environmental Protection Agency, October 6, 1993.

20. "Questions and Answers from the 15 Percent Rate-of-Progress Plan Workshop," memorandum from G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Environmental Protection Agency, October 29, 1993.

21. "Rate-of-Progress Plan Guidance on the 15 Percent Calculations," memorandum from D. Kent Berry, Acting Director, Air Quality Management Division, Environmental Protection Agency, October 29, 1993.

22. "Clarification of Issues Regarding the Contingency Measures that are Due November 15, 1993 for Moderate and Above Ozone Nonattainment Areas," memorandum from D. Kent Berry, Acting Director, Air Quality Management Division, Environmental Protection Agency, November 8, 1993.

23. "Credit for 15 Percent Rate-of-Progress Plan Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rule," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, Environmental Protection Agency, December 9, 1993.

24. "Guidance on Projection of Nonroad Inventories to Future Years," memorandum from Philip A. Lorang, Director, Emission Planning and Strategies Division, Office of Air and Radiation, Environmental Protection Agency, February 4, 1994.

25. "Discussion at the Division Directors Meeting on June 1 Concerning the 15 Percent and 3 Percent Calculations," memorandum from G. T. Helms, Chief, Ozone/Carbon Monoxide Programs Branch, Office of Air Quality

Planning and Standards, Environmental Protection Agency, June 2, 1994.

26. "Future Nonroad Emission Reduction Credits for Court-Ordered Nonroad Standards," memorandum from Philip A. Lorang, Director, Emission Planning and Strategies Division, Office of Air and Radiation, Environmental Protection Agency, November 28, 1994.

27. "Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rule and the Autobody Refinishing Rule," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, Environmental Protection Agency, November 29, 1994.

28. "Transmittal of Rule Effectiveness Protocol for 1996 Demonstrations," memorandum from Susan E. Bromm, Director, Chemical, Commercial Services and Municipal Division, Office of Compliance, Environmental Protection Agency, December 22, 1994.

29. "Future Nonroad Emission Reduction Credits for Locomotives," memorandum from Philip A. Lorang, Director, Emission Planning and Strategies Division, Office of Air and Radiation, Environmental Protection Agency, January 3, 1995.

30. "Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance (AIM) Coating Rule," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, Environmental Protection Agency, March 22, 1995.

31. "Fifteen Percent Rate-of-Progress Plans—Additional Guidance," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, Environmental Protection Agency, May 5, 1995.

32. "Update on the Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance Coatings Rule," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, Environmental Protection Agency, March 7, 1996.

33. "Date by which States Need to Achieve all the Reductions Needed for the 15% Plan from Inspection and Maintenance (I/M) and Guidance for Recalculation," memorandum from Margo Oge, Director, Office of Mobile Sources, and John S. Seitz, Director, Office of Air Quality Planning and Standards, Environmental Protection Agency, August 13, 1996.

34. "Sample City Analysis Comparison of Enhanced Inspection and Maintenance (I/M) Reductions Versus Other 15 Percent Rate of Progress Plan Measures," E.H. Pechan and Associates, December 12, 1996.

35. "Modeling 15 Percent Volatile Organic Compound (VOC) Reduction(s) from I/M in 1999: Supplemental Guidance," memorandum from Gay MacGregor, Director, Regional and State Programs Division, and Sally Shaver, Director, Air Quality Strategies and Standards Division, Environmental Protection Agency, December 23, 1996.

36. "15% Volatile Organic Compound (VOC) State Implementation Plan (SIP) Approvals and the 'As Soon As Practicable' Test," memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, and Richard B. Ossias, Deputy Associate General Counsel, Division of Air and Radiation, Office of General Counsel, Environmental Protection Agency, February 12, 1997.

For a 15% ROP plan SIP to be approved, the plan must adequately justify how much emission reduction is needed to achieve 15% emission reduction by November 15, 1996, and how the plan's control strategy will secure that reduction. The procedure for calculating the needed emission reduction is as follows:

(A) Calculate the "1990 ROP inventory" by subtracting from the area's "1990 base year inventory" [1] biogenic emissions, emissions outside of the nonattainment area, and pre-enactment banked emission credits;

(B) Calculate the "1990 adjusted base year inventory" by subtracting from the 1990 ROP inventory any emission reductions from the pre-1990 FMVCP and 1990 RVP Federal regulations which occur between 1990 and 1996; [2]

(C) Calculate "15% of adjusted base year emissions" by multiplying the 1990 adjusted base year inventory by 15%;

(D) Calculate the "total required reductions by 1996" by adding emission reductions from the pre-1990 FMVCP and 1990 RVP federal rules to 15% of adjusted base year emissions calculation; [3]

(E) Calculate the "1996 emissions target level" by subtracting from the 1990 ROP base year inventory the total required reductions by 1996;

(F) Calculate the "1996 projected emission estimate" by either adding growth factors to the 1990 adjusted base-year inventory, or adding growth factors and required emission reductions to the 1990 ROP inventory; and,

(G) Calculate the "reduction required by 1996 to achieve 15% net of growth" by subtracting the 1996 target emissions level from the 1996 projected emissions level.

In determining what control measures a State can use in its 15% ROP plan strategy, the Act provides under section 182(b)(1)(C) that emission reductions from control measures are creditable to the extent that they have actually occurred before November 15, 1996. In keeping with this requirement, the General Preamble states that all credited emission reductions must be real, permanent, and enforceable, and that regulations needed to implement the plan's control strategy must be adopted and implemented by the State by November 15, 1996.

IV. Prior Rulemaking Action

On April 3, 1997, EPA published a direct final rulemaking action approving the Lake and Porter Counties 15% ROP plan and a 3% contingency measure plan for Lake and Porter Counties (62 FR 15844). As part of the 15% ROP plan, Indiana also submitted an agreed order requiring VOC emission controls on Keil Chemical Division, Ferro Corporation, located in Lake County (Keil). On the same day (April 3, 1997), EPA proposed approval and solicited public comment on these requested SIP revisions (62 FR 15867). The proposed rule established a 30-day public comment period, noting that if adverse comments were received regarding the

[1] Sections 172(c)(3) and 182(a)(1) of the Act require that nonattainment plan provisions include a comprehensive, accurate inventory of actual emissions which occurred in 1990 from all sources of relevant pollutants in the nonattainment area. This inventory provides an estimate of the amount of VOC and oxides of nitrogen produced by emission sources such as automobiles, powerplants and the use of consumer solvents in the household. Because the approval of such inventories is necessary to an area's 15% ROP plan and attainment demonstration, the emission inventory must be approved prior to or with the 15% ROP plan submission.

[2] The 1990 adjusted base year inventory represents the "baseline emissions" from which the 15 percent reduction is to be calculated, as specified under section 182(b)(1)(B) of the Act. Section 182(b)(1)(B) defines baseline emissions to mean the total amounts of actual VOC emissions from all anthropogenic sources in the ozone nonattainment areas during the calendar year of 1990, excluding emissions that are eliminated by the pre-1990 FMVCP and 1990 RVP regulations. In the General Preamble, EPA interprets "calendar year" emissions to consist of typical ozone season weekday emissions, based on the fact that the ozone National Ambient Air Quality Standard (NAAQS) (0.12 parts per million, one-hour average) is generally exceeded or violated during ozone season weekdays when ozone precursor emissions and meteorological conditions are most conducive to ozone formation. Ozone seasons are typically the summer months.

[3] Under section 182(b)(1)(D), emission reductions pre-1990 and 1990 RVP regulations are not creditable toward meeting 15%. The emission reductions which occurred by 1996 from these regulations are added to emissions required to meet 15% to determine the total amount of emission reduction by 1996 for the area.

direct final rule EPA would withdraw the direct final rule and publish an additional final rule to address the public comments. The only set of comments received during the public comment period was from the Ferro Corporation regarding the Keil agreed order. Because these comments raised questions about the anticipated emissions reductions of the agreed order, EPA withdrew the direct final rulemaking on May 23, 1997 (62 FR at 28349).

Indiana originally claimed emission reductions from the Keil agreed order in the Lake and Porter 15% plan. The July 29, 1994, agreed order (Cause No. A-2250) requires the facility to meet certain control requirements. The agreed order was submitted with the 15% ROP plan for incorporation into the Indiana SIP so that the State could properly take credit for Keil's emission reductions.

Ferro Corporation's comment supported the Lake and Porter Counties 15% ROP plan, but requested that EPA recognize that Keil's VOC control installed pursuant to the agreed order has achieved more emission reductions than required under federal and State control regulations, and, consequently, the excess emission reductions "should be credited as a banked pollutant for the future." Ferro Corporation also indicated that EPA and Indiana are still reviewing Keil's compliance determination method for the 25 tons per year VOC emission limit under the agreed order. Ferro requested that EPA agree that Keil should not be held in violation of the SIP for the 25 tons per year limit if EPA and Indiana determine that Keil should use a different compliance determination method.

EPA is currently evaluating the Ferro Corporation comments. To expedite final approval of the 15% ROP plan, Indiana submitted a letter on June 13, 1997, which states that it has changed the allocation of control measure reductions between the Lake and Porter Counties 15% ROP plan and the 3% contingency plan. The agreed order emission reductions (5327 lbs VOC per day) will be shifted from the 15% ROP plan to the 3% contingency plan, and remaining reductions from Inland Steel Flat Product's coke oven shutdown (759 lbs VOC per day) and the State's automobile refinishing rule (4619 lbs VOC per day) have been shifted from the 3% contingency plan to the 15% ROP plan. The amount of emission reductions claimed for the coke oven shutdown and automobile refinishing rule was found by EPA to be acceptable in the April 3, 1997, direct final approval.

In today's action, EPA is promulgating final approval of the 15% ROP plan as adjusted by Indiana's June 13, 1997, letter. Because shifting emission reduction credit between the two plans does not affect the implementation of the plans' control measures, nor the achievement of 15% reduction required under the Act, reproposing approval of the 15% ROP plan is unnecessary. The 3% contingency plan is a separate requirement of the Act, and approval of the 3% contingency plan is not a prerequisite for approval of the 15% ROP plan. EPA will promulgate a final rulemaking on the 3% contingency plan once EPA completes its evaluation of the Ferro Corporation comments.

V. Analysis of Lake and Porter Counties 15% ROP Plan

Indiana's 15% ROP summary for Lake and Porter Counties is provided in the following table. This table has been adjusted from the table which appeared in the direct final to reflect the State's June 13, 1997, letter. (See part IV of this rulemaking).

15% ROP Summary for Lake and Porter Counties

Calculation of Reduction needs by 1996	Lbs Voc/ DayAY
1990 Lake and Porter Counties Total VOC Emissions	424,721
1990 ROP Emissions (Anthropogenic only)	381,841
1990–1996 Noncreditable Reductions (Reductions from 1990 RVP and Pre-1990 FMVCP Regulations)	58,838
1990 Adjusted Base Year Emissions (1990 ROP Emissions minus Noncreditable Reductions)	323,003
15% of Adjusted Base Year Emissions	48,450
Total Required Emission Reductions by 1996 (15% of Adjusted Base Year Emissions plus Noncreditable Reductions)	107,288
1996 Target Level (1990 ROP Emissions minus Total Required Emission Reductions by 1996)	274,553
1996 Projected Emissions (1990 Adjusted Base Year Emissions plus Growth Factors)	342,683
Reduction needs by 1996 to achieve 15 percent net of growth (1996 Projected Emission minus 1996 Target Level)	68,130
Creditable Reduction from Mandatory Controls	
Mobile Sources:	
Enhanced Vehicle Inspection and Maintenance (I/M) Program (326 IAC 13–1.1)	6,817
Federal Reformulated Gasoline Program (40 CFR Part 80, Subpart D)	14,905
Area Sources:	
Stage II Gasoline Vapor Recovery (326 IAC 8–4–6)	9,824
Federal Architectural and Industrial Maintenance (AIM) Coatings Rule	2,920
Point Sources:	
Non-Control Techniques Guideline (CTG) Reasonably Available Control Technology (RACT) Rule (326 IAC 8–7)	4,559
Subtotal—Reductions from Mandatory Controls	39,025
Creditable Reductions From Non-Mandatory Controls	
Point Sources:	
Coke Oven Battery Shutdowns at Inland Steel Flat Products (326 IAC 6–1–10.1(k)(5))	23,609
Area Sources:	
Automobile Refinishing (326 IAC 8–10)	4,679
Residential Open Burning (326 IAC 4–1)	329
Subtotal—Reduction From Non-Mandatory Controls	29,217
Total Creditable Reductions from 15% ROP plan	68,242

A. Calculation of the 1990 Adjusted Base Year Emission Inventory

To determine the 1990 adjusted base year inventory, Indiana used the 1990 base year emission inventory approved by EPA on January 4, 1995 (60 FR 375), which was found to meet the requirements of sections 172(c)(3) and 182(a)(1) of the Act for Lake and Porter Counties. Total VOC emissions estimated from this inventory are 424,721 lbs VOC/day. Indiana subtracted biogenic emissions and emissions from outside Lake and Porter Counties from the 1990 base year inventory to determine that the 1990 ROP inventory level is 381,841 lbs VOC/day. No pre-enactment banked emission credit was included in this inventory.

Indiana used EPA's Mobile Source Emissions Model (MOBILE)5a to calculate the emission reductions from the pre-1990 FMVCP and 1990 RVP regulations; these reductions were subtracted from the 1990 ROP inventory level to find the 1990 adjusted base year inventory level of 323,003 lbs VOC/day. Indiana's documentation includes the actual 1990 motor vehicle emissions using 1990 vehicle miles traveled (VMT) and MOBILE5a emission factors, and the adjusted emissions using 1990 VMT and the MOBILE5a emission factors in calendar year 1996 with the appropriate RVP for the nonattainment area as mandated by EPA. The plan includes adequate documentation showing how the MOBILE5a model was run to calculate the expected emission reductions from FMVCP and RVP.

B. 1996 ROP Target Emission Level

To calculate the 1996 target emission level for Lake and Porter Counties, Indiana first multiplied the 1990 adjusted base year inventory by 0.15 to determine that the 15% required emission reduction by 1996 is 48,450 lbs VOC/day. Then, 58,838 lbs VOC/day of reductions from non-creditable control measures (pre-1990 FMVCP and 1990 RVP) were added to the 15% required reduction to find that the total required reductions by 1996 is 107,288 lbs VOC/day. Finally, Indiana subtracted the 1996 total required emission reductions from the 1990 ROP emission inventory to determine that the 1996 emission target level for Lake and Porter Counties is 274,553 lbs VOC/day.

The 15% ROP plan submittal adequately documents the calculations used to determine the Lake and Porter Counties target level by showing each step, discussing any assumptions made, and stating the origin of the numbers used in the calculations.

C. Projected Emission Inventory

To determine the 1996 projected emission inventory, Indiana has included in the 15% ROP plan the growth factors used together with documentation for the assumptions made. The point, area, and non-road mobile source emission inventories were projected using either source supplied data, population forecasts, historical data, or, where historical data were unavailable or not suitable to project, the U.S. Department of Commerce Bureau of Economic Analysis (BEA) regional growth data were used. The on-road mobile source emission inventory was projected using MOBILE5a. The State's calculations for growth in the on-road mobile, off-road mobile, industrial, and area source sectors is 10,180 lbs VOC/day, 1,298 lbs VOC/day, 4,692 lbs VOC/day, and 3,510 lbs VOC/day, respectively, for a total of 19,680 lbs VOC/day. These growth estimates were calculated in a manner consistent with EPA's guidance documents. The projected emissions were added to the 1990 adjusted base year inventory to determine that the 1990 projected emission inventory level is 342,683 lbs VOC/day.

D. Creditable Reductions from Control Measures

From the calculation of the 1996 target emission level and 1996 projected emission level, Indiana must reduce emissions in Lake and Porter Counties by 68,130 lbs VOC/day, to secure the 15% ROP reduction. The Lake and Porter Counties 15% ROP plan does meet this requirement. The total creditable emission reductions achieved by the 15% ROP plan are 68,242 lbs VOC/day. Emission reductions not needed to meet the 15% ROP requirement will be applied toward achieving post-1996 ROP reductions, leading to attainment of the ozone air quality standard.

The SIP submittal includes documentation indicating the sources or source categories which are expected to be affected by each control measure, the sources' projected 1996 emissions without controls, and the assumptions used to estimate how much the sources' 1996 emissions would be reduced by each control measure. These assumptions were derived primarily from Midwest Research Institute's April 30, 1993, document entitled "Support Document for Indiana's Lake and Porter Nonattainment Area 1996 Rate of Progress Plan," which was contracted by EPA to assist Indiana in developing the 15% ROP and contingency plans. A review of the emission reduction credit taken for each control measure follows:

Enhanced I/M Program

Of the 15% ROP plans originally submitted to EPA, most contain enhanced I/M programs because they achieve more VOC emission reductions than most, if not all other, control strategies. However, because most States experienced substantial difficulties implementing enhanced I/M programs, only a few States are currently actually testing cars using the original enhanced I/M protocol.

On September 18, 1995 (60 FR 48029), EPA finalized revisions to its enhanced I/M rule allowing States significant flexibility in designing I/M programs appropriate for their needs. Further, Congress enacted the National Highway Systems Designation Act of 1995 (NHSDA), which provides States with more flexibility in determining the design of enhanced I/M programs. The substantial amount of time needed by States to re-design enhanced I/M programs in accordance with the final enhanced I/M rules and/or the guidance contained within the NHSDA, to secure State legislative approval when necessary, and set up the infrastructure to perform the testing program has precluded States from obtaining emission reductions from enhanced I/M by November 15, 1996.

Given the heavy reliance by many States on enhanced I/M programs to help satisfy 15% ROP plan requirements, and the recent NHSDA and regulatory changes regarding enhanced I/M programs, EPA has recognized that it was not possible for many States to achieve the portion of the 15% ROP reductions that are attributed to enhanced I/M by November 15, 1996. Under these circumstances, disapproval of the 15% ROP plan SIPs would serve no purpose. Consequently, under certain circumstances, EPA will allow States that pursue re-design of enhanced I/M programs to receive emission reduction credit from these programs in their 15% ROP plans, even though the emission reductions from the I/M program will occur after November 15, 1996.

Specifically, the EPA will approve 15% ROP SIPs if the emission reductions from the revised, enhanced I/M programs, as well as from the other 15% ROP plan measures, will achieve the 15% level as soon after November 15, 1996, as practicable. To make this "as soon as practicable" determination, the EPA must determine that the 15% ROP plan contains all VOC control strategies that are practicable for the nonattainment area in question and that

meaningfully accelerate the date by which the 15% level is achieved. The EPA does not believe that measures meaningfully accelerate the 15% date if they provide only an insignificant amount of reductions.

Indiana's enhanced I/M program for Lake and Porter Counties was approved by EPA on March 19, 1996 (61 FR 11142), and the State began testing vehicles under the new program on January 1, 1997. A single contractor, Envirotest, Inc., operates a test-only centralized network for inspections and re-inspection. The Indiana I/M program requires coverage of all 1976 and newer gasoline powered light duty passenger cars and light duty trucks up to 9,000 pounds Gross Vehicle Weight Rating (GVWR). All applicable 1981 and newer vehicles will be subject to a transient, mass emissions tailpipe test that includes the purge and pressure test. All applicable 1976 through 1980 vehicles will be subject to a BAR90 single-speed idle test that includes the pressure test. The I/M contractor has acquired all the emission test sites required under the State I/M contract, and all the test stations required have been constructed.

EPA has analyzed Indiana's enhanced I/M program to predict when the emission reductions claimed in the Lake and Porter Counties 15% ROP plan for the program will actually be secured. This analysis was based on the methodology specified in EPA's policy memoranda, "Date by Which States Need to Achieve all the Reductions Needed for the 15% Plan from I/M and Guidance for Recalculation," August 13, 1996, and "Modeling 15% VOC Reduction(s) from I/M in 1999—Supplemental Guidance," December 23, 1996. MOBILE5b runs were used to evaluate the credit using inputs that reflect actual program startup. Some of the input parameters of the modeling included: a January 1, 1997, program start date; start-up cutpoints as recommended by EPA; and expected evaporative test procedures available at start-up. The State has taken credit in the Lake and Porter Counties 15% ROP plan for 6.817 lbs VOC/day, or 3.41 tons per day reductions from enhanced I/M. Based on EPA's analysis, the emission reduction claimed will be secured by November 1999. See EPA's August 13, 1996, policy memorandum titled "Date by Which States Need to Achieve all the Reductions Needed for the 15% Plan from I/M and Guidance for Recalculation," for further discussion on the November 1999 date.

To determine whether there are other available potential control measures which can meaningfully accelerate the date by which a 15% reduction in VOC emissions in Lake and Porter Counties can be achieved, EPA compared the Lake and Porter Counties 15% ROP and 3% contingency plans with control measures included in 15% ROP plans nation-wide, which are listed in EPA's report, "Sample City Analysis: Comparison of Enhanced I/M Reductions Versus other 15 Percent ROP Plan Measures," December 12, 1996, referenced in EPA's policy document "15% VOC SIP Approvals and the 'As Soon As Practicable' Test," February 12, 1997. Based upon the report, EPA believes there are no other potential control measures beyond those already included in the Lake and Porter Counties 15% ROP and 3% contingency plans which can secure a significant amount of emission reduction before November 1999.

Because Indiana's enhanced I/M program will secure emission reductions claimed under the Lake and Porter Counties 15% ROP plan by November 1999 and because there are no other potential control measures which can meaningfully accelerate the achievement of a 15% reduction in the counties before November 1999, the EPA finds that the Lake and Porter Counties 15% ROP plan does secure a 15% emission reduction as soon as practicable. On this basis, the emission reduction claimed for the Lake and Porter Counties enhanced I/M program under the 15% ROP plan is approvable.

Federal Reformulated Gasoline Program

The federal reformulated gasoline program (40 CFR part 80, subpart D) requires gasoline providers in Lake and Porter Counties to sell only gasoline which meets certain blending requirements to reduce pollution. The VOC reduction from reformulated gasoline was determined using the MOBILE5a model to estimate the difference between 1996 highway mobile source emissions at RVP 9.0, the level of control upon gasoline in Lake and Porter Counties before the reformulated gasoline requirement, and 1996 highway mobile source emissions with reformulated gasoline. Indiana has credited a 14,905 lbs VOC/day emission reduction from this program, which is acceptable.

Stage II Gasoline Vapor Recovery Rule

Indiana's Stage II rule (326 IAC 8-4-6) requires facilities that sell more than 10,000 gallons of gasoline per month to operate Stage II vapor recovery systems certified to have a control effectiveness of at least 95%. Indiana has estimated that the rule has a 84% program in-use efficiency, accounting for annual inspection program effects and the exemption of facilities with a monthly gasoline throughput of less than 10,000 gallons. Indiana has credited a 9,824 lbs VOC/day emission reduction from this rule, which is acceptable.

Federal AIM Coatings Rule

Pursuant to section 183(e) of the Act, EPA proposed on June 25, 1996 (61 FR 32729), a national rule requiring manufacturers of AIM coatings to meet VOC content limitations. The March 7, 1996, EPA memorandum "Update on the Credit for the 15 Percent Rate-of-Progress Plans for Reductions from the Architectural and Industrial Maintenance Coatings Rule" allows States to take credit for a 20% reduction in AIM coating emissions, even though promulgation of the rule has been delayed. Based on this policy, Indiana has taken an emission reduction credit of 2,920 lbs VOC/day, which is acceptable.

Non CTG RACT Rule

Indiana's Non-CTG RACT rule (326 IAC 8-7) requires VOC controls on sources which have the potential to emit 25 tons of VOC emissions per year, and are not already covered under an existing CTG or part of a post-1990 CTG category.[4] Sources subject to this rule are allowed to demonstrate compliance by choosing among any one of the following three available options: (1) Achieve an overall VOC reduction in baseline actual emissions of 98% by the addition of add-on controls or documented reduction in VOC-containing materials used; (2) achieve a level of reduction equal to 81% of baseline actual emission by the same means as stated above, where it is demonstrated that a 98% reduction in source emissions is not achievable; or (3) achieve an alternative overall emission reduction by the application of RACT as determined by the State and EPA. Indiana estimates that the rule's overall control efficiency is 81%, and has a rule effectiveness of 80%. Indiana has credited 4,559 lbs VOC/day in emission reductions from this rule, which is acceptable.

Coke Oven Battery Shutdowns at Inland Steel Flat Products

Inland Steel is required under Indiana's Particulate Matter rule 326 IAC 6-1-10.1(k)(5) to shut down

[4] RACT is the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available, considering technological and economic feasibility. CTGs are EPA documents which provide recommendations on what EPA considers the presumptive norm for RACT for particular industries. Indiana was required to adopt the Non-CTG RACT rule by section 182(b)(2) of the Act.

numbers 6 through 11 coke batteries before 1996. The 1990 base year inventory emissions from these coke batteries, 23,609 lbs VOC/day, are being credited as emission reductions. These reductions are acceptable.

Residential Open Burning Rule

Under Indiana's rule 326 IAC 4-1, residential open burning is banned in Lake and Porter Counties. Indiana estimates 80% emission reduction and 80% rule effectiveness from this rule. An emissions reduction credit of 929 lbs VOC/day from the rule is acceptable.

Automobile Refinishing Rule

The State rule 326 IAC 8-10 requires automobile and mobile equipment refinishing shops to use lower VOC coatings, less-emitting spray-gun and spray-gun cleaning equipment, and improved work practices to reduce VOC. To improve rule effectiveness, this rule also requires refinishing coating suppliers in the area to sell only coatings which meet the VOC limits required in the rule. In addition to documentation contained in the submittal, Indiana submitted supplemental documentation which indicates that an overall 77.8% emission reduction can be expected from all the control measures required by this rule, with 100% rule effectiveness. This documentation has been included in the docket for this rulemaking. Indiana has taken an emission reduction credit of 4,679 lbs VOC/day from this rule, which is acceptable.

E. Enforceability Issues

All measures and other elements in the SIP must be enforceable by the State and EPA (See sections 172(c)(6), 110(a)(2)(A) of the Act, and 57 FR 13556). The EPA criteria addressing the enforceability of SIPs and SIP revisions were stated in a September 23, 1987 memorandum (with attachments) from the Assistant Administrator for Air and Radiation (see 57 FR 13541). Nonattainment area plan provisions must also contain a program that provides for enforcement of the control measures and other elements in the SIP (see section 110(a)(2)(C) of the Act).

The control measures included in the Lake and Porter 15% ROP plan have been fully adopted by Indiana and have been submitted to EPA as revisions to the State's ozone SIP. The EPA has independently reviewed each control measure to determine conformance with SIP requirements under section 110 and part D of the Act, and the overall enforceability of the measure's requirements. Rulemaking action on each control measure is as follows:

Control measure	Date of EPA approval
Enhanced I/M Program (326 IAC 13-1.1)	March 19, 1996 (61 FR 11142).
Reformulated Gasoline (40 CFR Part 80, Subpart D)	Federal regulation promulgated February 16, 1994 (59 FR 7716).
Stage II Gasoline Vapor Recovery (326 IAC 8-4-6)	April 28, 1994 (59 FR 21942).
Federal AIM Coatings Rule	Proposed federal regulation for which Indiana can take credit. (See memorandum dated March 7, 1996, from John Seitz, Director, Office of Air Quality Planning and Standards to Regional Air Division Directors).
Non-CTG RACT (326 IAC 8-7)	July 5, 1995 (60 FR 34857).
Residential Open Burning Ban (326 IAC 4-1)	February 1, 1996 (61 FR 3581).
Auto Refinishing (326 IAC 8-10)	June 13, 1996 (61 FR 29965).
Coke Oven Battery Shutdown (326 IAC 6-1-10.1(k)(5))	June 15, 1995 (60 FR 31412).

F. Transportation Conformity 1996 Mobile Source Emissions Budget

Section 176(c) requires States to submit SIP revisions establishing the State's criteria and procedures for assessing the conformity of federal actions (transportation and general) to the SIP's purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards, and that such activities will not: (1) Cause or contribute to any new violation of any standard in any area, (2) increase the frequency or severity of any existing violation of any standard in any area, or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area. To assure conformity with the SIP, conformity analyses for transportation projects must take into account the amount of on-road mobile source emissions that can be emitted in accordance with SIP emission reduction milestones. For the purposes of EPA transportation conformity determinations, the 1996 emission level for on-road mobile sources that is achieved from the 15% ROP plan, constitutes the 1996 VOC mobile source emission budget for Lake and Porter Counties. This level, which is derived from MOBILE5a using 1996 projected on-road mobile source emissions with reformulated gasoline and enhanced I/M, is 50,015 lbs VOC/day. Therefore, final approval of the 15% ROP plan also approves the 1996 mobile source VOC emission budget of 50,015 lbs VOC/day.

For years after 1996, conformity determinations addressing VOCs must demonstrate consistency with this plan revision's motor vehicle emissions budget, and satisfaction of the build/no-build test, as defined under 40 CFR part 93.

G. Concluding Statement on 15% ROP Plan

The EPA has reviewed the Lake and Porter Counties 15% ROP plan SIP revision submitted to EPA as described above, and finds that the plans satisfy the requirements of section 182(b)(1) of the Act, as well as EPA guidance for such plans. Therefore, the EPA, in this action, is approving this plan as a revision to the Indiana ozone SIP.

VI. Final Rulemaking Action

The EPA approves Indiana's 15% ROP plan for Lake and Porter Counties, as a revision to the SIP. For transportation conformity purposes, final approval of the 15% ROP plan also approves the 1996 mobile source emission budget of 50,015 lbs VOC/day. This action will be effective on August 18, 1997.

Nothing in this action should be construed as permitting, allowing or establishing a precedent for any future request for revision to any SIP. Each request for revision to the SIP shall be considered separately in light of specific technical, economic, and environmental factors and in relation to relevant statutory and regulatory requirements.

VII. Administrative Requirements

A. Executive Order 12866

The Office of Management and Budget has exempted this regulatory action from Executive Order 12866 review.

B. Regulatory Flexibility

Under the Regulatory Flexibility Act, 5 U.S.C. section 600 *et seq.*, EPA must prepare a regulatory flexibility analysis

assessing the impact of any proposed or final rule on small entities. 5 U.S.C. sections 603 and 604. Alternatively, EPA may certify that the rule will not have a significant impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and government entities with jurisdiction over populations of less than 50,000.

SIP approvals under section 110 and subchapter I, part D of the Act do not create any new requirements, but simply approve requirements that the State is already imposing. Therefore, because the Federal SIP approval does not impose any new requirements, the Administrator certifies that it does not have a significant impact on any small entities affected. Moreover, due to the nature of the Federal-State relationship under the Act, preparation of a flexibility analysis would constitute Federal inquiry into the economic reasonableness of the State action. The Clean Air Act forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co. v. EPA*, 427 U.S. 246, 256-66 (1976); 42 U.S.C. 7410(a)(2).

C. Unfunded Mandates

Under section 202 of the Unfunded Mandates Reform Act of 1995, signed into law on March 22, 1995, EPA must undertake various actions in association with any proposed or final rule that includes a Federal mandate that may result in estimated costs to state, local, or tribal governments in the aggregate or to the private sector, of $100 million or more. This Federal action approves pre-existing requirements under state or local law, and imposes no new requirements. Accordingly, no additional costs to state, local, or tribal governments, or the private sector, result from this action.

D. Submission to Congress and the General Accounting Office

Under section 801(a)(1)(A) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office prior to publication of the rule in today's **Federal Register**. This rule is not a major rule as defined by section 804(2).

E. Petitions for Judicial Review

Under section 307(b)(1) of the Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by September 16, 1997. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Hydrocarbons, Intergovernmental relations, Ozone.

Dated: July 8, 1997.

Michelle D. Jordan,

Acting Regional Administrator.

For the reasons stated in the preamble, part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—[AMENDED]

1. The authority citation for Part 52 continues to read as follows:

Authority: 42 U.S.C. 7401-7671q.

2. Section 52.777 is amended by adding paragraph (k) to read as follows:

§ 52.777 Control Strategy: Photochemical Oxidants (hydrocarbon).

* * * * *

(k) On June 26, 1995, and June 13, 1997, Indiana submitted a 15 percent rate-of-progress plan for the Lake and Porter Counties portion of the Chicago-Gary-Lake County ozone nonattainment area. This plan satisfies the counties' requirements under section 182(b)(1) of the Clean Air Act, as amended in 1990.

[FR Doc. 97-18972 Filed 7-17-97; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 180, 185 and 186

[OPP-300507; FRL-5727-9]

RIN 2070-AB78

Vinclozolin; Pesticide Tolerance

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final Rule

SUMMARY: This regulation establishes a time-limited tolerance for residues of the pesticide vinclozolin, [3-(3,5-dichlorophenyl)-5-ethenyl-5-methyl-2,4-oxazolidinedione] and its metabolites containing the 3,5-dichloroanaline (3,5-DCA) moiety at 2.0 parts per million (ppm) in or on the food commodity succulent beans. The tolerance will expire and is revoked on October 1, 1999. A petition was submitted by BASF Corporation to EPA under the Federal Food, Drug, and Cosmetic Act (FFDCA) as amended by the Food Quality Protection Act of 1996 (Pub. L. 104-170) requesting the tolerance. BASF has requested that EPA revoke the tolerances for prunes, plums, tomatoes, grapes (excluding grapes grown for wine production), raisins, dried prunes and grape pomace. EPA will publish a document in the **Federal Register** to remove the revoked tolerances from the Code of Federal Regulations. BASF has deleted all residential uses, as well as, turf in parks, school grounds and recreational areas which would be expected to result in significant exposure to children from its vinclozolin registrations under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

DATES: This regulation becomes effective on May 30, 1997. Written objections and hearing requests must be received on or before September 16, 1997.

ADDRESSES: Written objections and hearing requests, identified by the docket control number, [OPP-30507], may be submitted to: Hearing Clerk (1900), Environmental Protection Agency, Rm. M3708, 401 M St., SW., Washington, DC 20460. Fees accompanying objections and hearing requests shall be labeled "Tolerance Petition Fees" and forwarded to: EPA Headquarters Accounting Operations Branch, OPP (Tolerance Fees), P.O. Box 360277M, Pittsburgh, PA 15251. A copy of any objections and hearing requests filed with the Hearing Clerk should be identified by the docket control number and submitted to: Public Information and Records Integrity Branch, Information Resources and Services Division (7506C), Office of Pesticide Programs, Environmental Protection Agency, 401 M St., SW., Washington, DC 20460. In person, bring copy of objections and hearing requests to: Rm. 1132, CM #2, 1921 Jefferson Davis Hwy, Arlington, VA 22202.

A copy of objections and hearing requests filed with the Hearing Clerk may also be submitted electronically by sending electronic mail (e-mail) to: opp-docket@epamail.epa.gov. Copies of objections and hearing requests must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Copies of objections and hearing requests will also be accepted on disks in WordPerfect in 5.1 file

BURRIS

BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC.,
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
— CONTROL AND OPERATING LEASES/AGREEMENTS —
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

Verified Statement
of
Philip H. Burris
Vice President
L. E. Peabody & Associates, Inc.

On Behalf of
Four Cities Consortium

Due Date: February 2, 1998

I. INTRODUCTION

My name is Philip H. Burris. I am a vice president of the economic consulting firm of L. E. Peabody & Associates, Inc. The firm's offices are located at 1501 Duke Street, Alexandria, Virginia 22315. I am the same Philip H. Burris who submitted a verified statement in these proceedings as part of the Four City Consortium's Comments and Request for Conditions (FCC-9) filed on October 21, 1997. My qualifications are attached to my earlier verified statement.

I have been requested by the Cities of East Chicago, Indiana, Hammond, Indiana, Gary, Indiana and Whiting, Indiana (hereinafter referred to as the "Four Cities", "Four City Consortium" or "FCC") to comment on the Draft Environmental Impact Statement ("DEIS") served by the Surface Transportation Board's ("STB") Section of Environmental Analysis ("SEA") on December 12, 1997.

As part of my analysis of the DEIS, I have re-evaluated the impact on the Four Cities of the proposed acquisition and operation of Consolidated Rail Corporation ("Conrail")[1/] by Norfolk Southern Corporation and its rail affiliates ("NS") and CSX Corporation and its rail affiliates ("CSX"), collectively referred to as "Applicants." My evaluation uses the SEA's formulae for calculating delay time at rail crossings, the SEA's factors for determining vehicular emissions resulting from the Applicants' operating plan, and certain revisions to the data relied on in my October 21, 1997 verified statement.

My statement is organized as follows:

1/ Including Conrail's 51 percent ownership interest in the Indiana Harbor Belt Railroad ("IHB")

II. BACKGROUND

Each of the Four Cities named above is located in Northwest Indiana, at the southern tip of Lake Michigan. This region, which is part of the greater Chicagoland area, is densely populated with industrial development and residential communities. The industries (including steel mills, oil refineries, an electric generating station and a cement plant) are served by several railroads via hundreds of miles of mainline, switch, yard and industrial tracks.

The region is a major crossroads for transcontinental rail and motor carrier freight traffic. Three Class I railroads, four terminal and switching railroads, and a regional railroad operate in the area.[2/] In addition, Amtrak provides inter-city passenger service and the Northern Indiana Commuter Transportation District ("NICTD") operates commuter passenger rail service in the region.

As stated in my October 21, 1997 verified statement, railroad operations over this extensive network currently cause significant safety problems and disruption of motor vehicle movements throughout the entire Four City region because of the dense industrial and residential population in the area. The present disruption of vehicular traffic at rail/highway grade crossings is barely manageable especially with regard to the provision of emergency services by the local governments. In the Four Cities alone, 243 at-grade rail/highway crossings exist.

[2/] These carriers include, Conrail, NS, CSX, IHB, The Belt Railway Company of Chicago ("BRC"), the Elgin Joliet and Eastern Railway Company ("EJE"), the Baltimore, Ohio and Chicago Terminal Railroad ("BOCT"), and the Chicago South Shore & South Bend Railroad ("CSS&SB").

According to the Association of American Railroads ("AAR"), the state of Indiana has the fourth highest incidence of vehicle-train collisions and fatalities of any of the fifty states and the District of Columbia[3]. This statistic underscores the Four Cities' extreme concern regarding rail/highway safety.

As a result of the existing, barely manageable railroad congestion situation, the Four Cities are deeply concerned by the potential impact of the Applicants' plans to increase rail traffic on several rail lines in the Four Cities region. These concerns are exacerbated by the impact of the projected increase in rail traffic on the Cities' respective infrastructure improvement and economic development plans, which are vital to the economic recovery of the region. The public safety, emergency services, and economic development concerns of the Four Cities were described at length in the October 21, 1997 verified statements of the City Planners from each community.[4] The negative impacts of the proposed transaction on the construction of affordable housing, expansion of the Gary/Chicago Airport, and Lake Michigan waterfront development are addressed in the accompanying Verified Statement of Michael L. Cervay. Mr. Cervay's testimony also addresses the severe air pollution problems facing the Four Cities region and the adverse impact of the Applicants' plan on area-wide efforts to improve the environment.

In the EIS process, the SEA is charged with evaluating the impact of the Applicants' entire proposed transaction which covers dozens of states, hundreds of cities and line segments and

---

[3] Association of American Railroads, Overall Rail Casualty Data, preliminary 1996 FRA Data, obtained from the AAR internet web site; http://www.aar.org/comm; 9/17/97.

[4] These include the verified statements of Daniel A. Botich, Michael L. Cervay, Kimberly L. Gordon and Donald F. Thomas included in the Four Cities' Comments of October 21, 1997 (FCC-9).

thousands of mile of track. This analysis must be completed in an extremely short time frame. Because of time constraints, it is apparent that the SEA has examined the environmental impacts of the transaction in much less detail than is warranted in some circumstances, and the SEA has used formulas for evaluating certain impacts that rely on extremely generalized information and criteria. In short, the DEIS appears to identify only the most egregious and negative impacts, and its analysis glosses over many other serious impacts.

Unfortunately, this approach does not produce the most accurate result, nor does it lead to mitigation actions which address all serious environmental impacts. I believe that the Four Cities region is far more negatively impacted than SEA's conclusions in the DEIS would indicate. My testimony will identify why I believe this to be true and will review the Four Cities' alternative to the Applicants' proposed operating plan. This alternative will mitigate the majority of the negative environmental impacts in the Four Cities Region.

III. SUMMARY

Based on my review of the DEIS and my analysis of the impact of the Applicants' proposed operating plan, I believe the SEA has significantly understated the negative impact of the proposed operating plan on the Four Cities Region. In contrast to the SEA's findings, I have determined that the Applicants' proposed operating plan would have substantial adverse incremental impacts on safety and the provision of emergency services by the Four Cities, traffic congestion and delay, air quality, land use, and socioeconomic factors within the Four Cities.

Further, I have determined that the FCC's Alternative Routing Plan, as fully described in my October 21 verified statement, will mitigate the majority of the incremental adverse impacts of the Applicants' proposed operating plan. As a result, I believe it is incumbent on the SEA to consider and recommend the FCC's Alternative Routing Plan as an environmental mitigating condition to approval of the Applicants' acquisition and control of Conrail.

1. Economic Impact of Applicant's Projected Increase in Traffic

In my October 21, 1997 verified statement, I discussed the current levels of rail traffic over the key rail lines in the Four Cities, the adverse incremental impacts on safety, emergency services, traffic delays and other aspects of life in the Four Cities that would be caused by the proposed transaction, as well as the economic impact on the Four Cities. In this statement, I have revised my analysis of the economic impact related to the projected increase in Applicants' traffic above the current traffic levels and found that the annual cost to the public living and working in the Four Cities region equals a minimum of $3.4 million. The net present value of

the cost to the cities for a twenty year period equals $48.2 million. The discount factor used in this calculation is the Office of Management and Budget, Real Interest Rates on 30 year Treasury Notes and Bonds of 3.6 percent. The real interest rate is used because it recognizes the tax effects of investment by municipalities. The source for time discount factor is OMB Circular No. A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs. This is the source for discount rates used by the Federal Railroad Administration in evaluating rail/highway grade crossing improvements.

The increased costs are a result of four factors: 1) lost productivity resulting from incremental vehicle delays at rail/highway crossings; 2) additional fuel and oil consumption associated with the incremental delays; 3) the incremental emissions exhausted into the atmosphere resulting from the increased delays at rail crossings; and, 4) the increase in the number of rail/vehicle accidents, injuries and fatalities at rail crossings resulting from increased rail traffic.

I have not attempted to quantify the significant negative impact on the Region's economic growth, which will occur if service on the former Pennsylvania Railroad ("PRR") line between Hobart and Clarke Junction is reinstated. As Mr. Cervay indicates in his verified statement, renewed service on this line will prevent expansion of the Gary/Chicago Airport, which in turn will prevent the economic development of this airport as a utility/transport facility and significantly impair the economic redevelopment of the Lake Michigan waterfront. It would also interfere with the planned construction of 40-50 affordable homes for low-income Gary residents.

2. FCC Alternative Routing Plan

As described in my October 21, 1997 verified statement, the FCC has developed an Alternative Routing Plan which permits the flow of Applicants' projected traffic through the Four Cities in a manner that maximizes use of grade separated rail lines and minimizes millions of dollars of capital investment in rail line rehabilitation and upgrades proposed by the Applicants.

The FCC alternative addresses two proposed routes included in Applicants' operating plans. First, FCC proposes that CSX reduce the traffic it projects to move on the Willow Creek to Pine Junction and Pine Junction to Calumet Park lines[5/] by using these lines primarily for westbound traffic, and using the IHB line for eastbound movements from Calumet Park, IL to a new connection with the Conrail Porter Branch near Tolleston (Gary), IN, and thence via the Porter Branch back to Willow Creek. This will effectively result in paired mainline tracks, each with traffic moving primarily in a single and opposite direction.[6/] Exhibit PHB-3 attached to my October 21, 1997 verified statement is a map of the CSX Willow Creek to Calumet Park line via Pine Junction and the IHB/Conrail Porter Branch from Calumet Park to Willow Creek.

The CSX lines between Willow Creek and Calumet Park via Pine Junction have 27 at grade crossings, with 20 of these crossings located on the CSX/BOCT line between Pine Junction and

---

5/ The Pine Junction to Calumet Park line is owned by the BOCT, which is a wholly owned subsidiary of CSX. I will hereinafter refer to this line as the "CSX/BOCT line".

6/ Based on responses to the FCC's discovery requests, CSX has provided traffic diagrams (Bates numbers CSX 44 C0 00010-CSX 44 CO 000126) and data on computer diskettes, describing the existing CSX traffic flows within the Chicago-Northern Indiana region. This information identifies the individual trains traversing these routes and whether their direction is inbound or outbound thereby allowing for a determination as to the proportional flow of traffic in each direction.

Calumet Park which runs through the downtown areas of East Chicago and Hammond. By contrast, the IHB/Conrail Porter Branch line from Calumet Park to Willow Creek runs through a less developed area and has only three at grade crossings. The IHB/Conrail line also has thirteen grade separated crossings. As stated in the October 21, 1997 verified statement of Mr. Donald F. Thomas, City Planner for Hammond, the Federal, State and City governments have invested $25 million in the grade separations on the IHB corridor.

The FCC's proposed shift of traffic from the CSX Willow Creek to Pine Junction and Pine Junction to Calumet Park lines to the IHB/Conrail Porter Branch lines will substantially reduce the number of at-grade highway crossings by the affected trains, thereby mitigating the most significant negative impacts on the Four Cities as a result of the Applicants' proposed operating plans.

The second route addressed by the FCC's Alternative Routing Plan is the portion of the former PRR Fort Wayne to Chicago line between Hobart and Clarke Junction via Tolleston, which is presently out of service but which CSX proposes to rehabilitate and place back into service. According to the information provided by CSX, both in its operating plan and in responses to discovery, CSX plans to connect this line to the Conrail Porter Branch at Tolleston, the NS Wabash spur north of Tolleston and the CSX/Contrail lakefront line north of Clarke Junction. The out-of-service PRR line is 11.75 miles in length and has 23 at-grade rail/highway crossings, which will be reactivated under the Applicants' proposal. Based on CSX's informal responses to FCC's Third Set of Interrogatories and Document Production Requests ("Third Discovery Requests"), it appears that CSX desires to reactivate the PRR line northwest of

Hobart to move coal and coke to the steel mills located on the Lake Michigan waterfront and other bulk commodities into and out of the Chicago region, thus keeping this slower-moving traffic off of CSX's main line through Garrett, IN.

The FCC opposes the reactivation of the out-of-service PRR line between Hobart and Clarke Junction. Such reactivation would entail reopening of 23 inactive rail/highway grade crossings, interfere with the City of Gary's effort to develop part of the area traversed by this line for a new low-income housing development, and prevent expansion of the Gary/Chicago Airport. To accommodate the five trains per day CSX expects to move over this line, the FCC proposes that the CSX trains destined to steel mills served by the EJE be routed from Hobart west to Van Loon over the NS's former Nickel Plate ("NKP") line via a new trackage rights agreement between CSX and NS. From Van Loon, FCC proposes that the CSX trains move north over the EJE via trackage rights to EJE's Kirk Yard to reach the same lakefront steel mills and to CSX's Curtis Yard for continued movement on CSX's lakefront line.[7/]

CSX coal and coke trains destined to steel mills served by IHB can be moved from Hobart to Osborn over the NS former NKP line, where it connects to the IHB. From Osborn the traffic can move to either of the IHB-served steel mills.

[7/] According to CSX's responses to the FCC's questions in lieu of deposition, it is apparent that CSX has an agreement with the EJE which allows "coal and coke deliveries to U.S. steel using CSX crews." If such an agreement were not in place and if CSX and EJE were unable to achieve such an agreement, establishment of an agreement could be required as a condition of the acquisition. Such a condition would allow CSX to obtain trackage rights to operate over the EJE line from Van Loon to Pine Junction, enabling it to deliver this traffic to the Gary area.

Exhibit PHB-4 attached to my October 21, 1997 verified statement is a map of the Hobart to Clarke Junction PRR line and the FCC's proposed alternative routing via NS and EJE.

3. Vehicular Delay At Grade Crossings

The FCC's Alternative Routing Plan would avoid the Applicants' planned increase in rail traffic moving over the CSX/BOCT line. Additionally, it will actually produce a decrease in vehicle delay hours from current levels, while allowing Applicants to move all of their projected traffic through the Four Cities region in an efficient manner. The table below summarizes current annual vehicle delay hours and those resulting from both the Applicants' projected traffic and operating plan and FCC's proposed Alternative Routing Plan, using the SEA's corrected formulas for calculating delay times with adjustments to various input data as described later in my testimony.

Line Segment (1)	Current Delay Hours (2)	Applicants' Proposal Delay Hours (3)	FCC's Alternative Delay Hours (4)
Willow Creek to Calumet Park	204,385	333,453	187,241
Hobart to Clarke Junction (via PRR)	0	21,812	0
Hobart to Clarke Junction (via Van Loon)	0	0	27,404
Total Hours	**204,385**	**355,265**	**214,645**

4. Comparative Analysis of Applicants' Proposal and the FCC's Alternative Operating Plan

I have performed a comparative analysis of the Applicants' proposed operating plans for these two routes and the FCC's Alternative Routing Plan and determined that the FCC's Alternative results in an annual cost savings to the public and the Applicants of $4.2 million. The net present value of these savings for a twenty-year period using the OMB discount factor discussed above equals $59.3 million.

My comparative analysis is based on the same four factors listed in the previous section plus the change in rail operating costs and a return on investment on the capital required to implement each of the alternatives. Based on our calculations, the Applicants' operating costs will decrease slightly using the FCC's Alternative Routing Plan to operate between Willow Creek and Calumet Park, and increase slightly from Hobart to Clarke Junction. The Applicants' required capital costs will decrease significantly using the FCC Alternative as the Applicants will avoid the substantial expenditure of funds required to reactivate the PRR rail line.

IV. COMMENTS REGARDING SEA'S CONCLUSIONS IN THE DEIS

The SEA's DEIS identified 119 rail line segments as meeting or exceeding the STB's thresholds for environmental analysis. For these 119 segments the SEA examined 11 separate categories of environmental issues. Each of these issues will be discussed below to the extent they pertain to the Applicants' proposed operating plan and the FCC's Alternative Routing Plan.

1. Safety

The DEIS found four rail/highway grade crossings in the Four Cities region to be significantly impacted by the Applicants' proposed operating plan. These include County Line Road, Hobart Road, Lake Street and Clark Road, all located on CSX's Willow Creek to Pine Junction line segment. According to DEIS, a crossing will not be found significantly impacted unless it has a history of at least one accident every seven years (or 0.15 accidents per year) and an increase of at least 0.01 accidents per year.

a. Hobart to Clarke Junction Line

In the instance of Lake County, Indiana, the DEIS analysis is deficient because it fails to include the PRR line between Hobart and Clarke Junction which CSX intends to restore to service. This line segment has been out of service for approximately ten years. As a result, it cannot meet the DEIS criteria for having significant safety impact, as by definition, it has not had an accident in the past seven years.

In fact, vehicular accidents are more likely to occur on this line precisely because it has been out of service for more than seven years. Unfortunately as discussed below, throughout

the Four Cities' region, motorists regularly ignore crossing safety devices. Motorists will not be expecting trains to be using this line. There is no reason to believe motorists behavior will be any different with respect to the PRR line, particularly since drivers will not be used to having to deal with active grade crossings on this line.

The FCC Alternative Routing Plan avoids the likely high occurrence of accidents on the Hobart to Clarke Junction line segment by routing traffic over the currently used Hobart to Van Loon and Van Loon to Pine Junction line segments where the public is accustomed to the movement of rail traffic. Further, the Applicants' propose to reduce rail traffic on the Hobart to Van Loon line segment from the present 26 trains per day to 11 trains per day, thereby assuring ample capacity for handling Applicants' projected five trains per day scheduled for the restored PRR Hobart to Clarke Junction line segment.

b. <u>Vehicles Around Gates</u>

Another safety issue that is not addressed in the DEIS is the "around the gate" phenomenon identified and described by Dr. Gary M. Andrew in his October 21, 1997 verified statement included in FCC-9. In the September 1997 train delay study designed by Dr. Andrew, an average of 484 vehicles per day were observed going around activated gates at the 12 rail crossings included in the train delay study.

Rail traffic and the associated delays are so prevalent in the Four Cities region that the public frequently ignores crossing protection to avoid the ever-present delays at rail crossings. The SEA's formulaic approach to determining mitigation of safety problems at rail crossings

ignores the realities of behavior in these communities. This behavior cannot be overlooked, and it has been brought to the attention of the agency through both the Four Cities' October 21, 1997 testimony and these comments.

Two possible approaches to mitigate the around-the-gates phenomenon are to: 1) require the Applicants to install motion detectors at the control points which activate and deactivate crossing protection devices, thus permitting the devices to deactivate in those instances when trains have stopped moving[8/] and have not cleared the control points; and/or 2) require the Applicants to install Jersey Barriers at heavily-used crossings to force motorists to observe closed gates at rail crossings. The best mitigation, of course, would be adoption of the Alternative Routing Plan for the reasons discussed in these, and the Four Cities earlier comments.

c. Disruption of Emergency Services

Another safety issue in the Four Cities is the disruption to the provision of emergency services by slow moving trains and stopped trains that are blocking highway crossings. As discussed in the verified statements of the city planners from each community included in FCC-9, current vehicle delays at rail crossings significantly impair the delivery of emergency services, such as fire, ambulance and police services. In many instances, the cities have, at significant expense, constructed duplicate facilities, and acquired extra equipment and emergency services personnel to minimize this disruption.

[8/] As discussed in a later section, train stoppage in the Four Cities region often blocks numerous highway crossings at one time. This creates significant safety problems and causes substantial vehicle delays. This problem is especially significant on the CSX/BOCT line between Pine Junction and Calumet Park.

For example, the City of East Chicago incurred 9,688 delays in 1996 by police vehicles responding to emergency calls. This represents twenty percent of the total police emergency calls responded to by East Chicago in 1996. Further, of 1,594 medical emergencies responded to by EMS vehicles in East Chicago in 1996, 966, or 61 percent, were delayed at railroad crossings and in 241 of these instances, an additional emergency vehicle had to be dispatched to provide the needed service.

As noted previously, the extremely heavy rail traffic volumes that currently exist in the Four Cities region create a barely manageable situation for the residents, employees and emergency service providers in the region. Any increase in rail traffic in the Four Cities region, especially on the CSX/BOCT line from Pine Junction to Calumet Park which bisects the Cities of East Chicago and Hammond, will significantly add to this already difficult situation. The formulaic approach taken by the DEIS does not consider the significant safety problems which would be caused by even a small increment of additional rail traffic in this region.

The FCC Alternative Routing Plan, however, is a workable alternative which permits the carriers to move the projected volumes of traffic and minimizes the negative impact of these safety issues in the region. For example, the table below displays the number of daily occurrences of trains crossing highways for both the Applicants' operating plan and the FCC's Alternative Routing Plan.

	Applicants' Operating Plan	FCC Alternative Plan
Train-highway crossings	1313	1074

As discussed, requiring adoption of the FCC's Alternative Routing Plan as a condition to the approval of Applicants' acquisition and control of Conrail would offer important mitigation of the negative safety impacts resulting from Applicants' proposed operating plans.

2. Roadway Crossing Delays

The DEIS examined the impact of the Applicants' proposed operating plan on vehicular delays at rail/highway crossings and concluded that no significant increase in vehicle delays would occur in the Four Cities Region. I believe this conclusion is incorrect for several reasons, including: 1) the SEA limited its analysis to selected crossings with daily vehicle counts ("ADT") of greater than 5,000 vehicles, 2) the length of train data utilized by SEA is inconsistent with that found in the Applicant's documents and supporting workpapers, and 3) the SEA's train speed data overstates the actual operating speeds that can be achieved on the rail lines in the Four Cities region.

The accompanying verified statement of Dr. Andrew addresses each of the above factors leading to the DEIS' understatement of vehicular delay at rail crossings. Dr. Andrew's testimony demonstrates that when corrected for these errors, use of the SEA train delay formula results in a significant increase in the vehicular delay that would be experienced under the Applicants' operating plan as compared to that currently experienced in the Four Cities.

Further, Dr. Andrew's testimony shows that the FCC's Alternative Routing Plan results in significantly lower delay than does the Applicants' operating plan, while still accommodating Applicants' projected traffic volumes and desire for routing flexibility.

a. Crossings with Less Than 5,000 ADT

As noted by Dr. Andrew, the SEA's analysis of crossing delays ignores crossings with an ADT of less than 5,000. The 5,000 ADT criterion appears to be arbitrary as applied to the Four Cities situation because it ignores the cumulative impact of crossing delays in an area having numerous crossings in close proximity to each other.

For example, the CSX/BOCT line between Pine Junction and Calumet Park traverses the heart of both downtown East Chicago and downtown Hammond. Almost every north-south street in each community crosses this line at grade. These crossings are shown on Exhibit PHB-9 which is a series of maps showing the CSX/BOCT line produced by CSX in discovery. Nine of these crossings involve arterial highways having an ADT of more than 5,000; they are listed in revised Table 5-IN-45 on Page IN-85 of Chapter 5 of the DEIS. However, other road crossings lie between each of these heavily-used crossings, and motorists often attempt to use one of them if, as often happens, one (or more) of the arterial roads is blocked by a train.[2/] While the ADT's for these other crossings are less than 5,000, all of them are impacted by delays at the arterial highway crossings. They must be considered as a group in assessing the cumulative impact of crossing delays on the CSX/BOCT line.

[2/] Chicago Avenue parallels the CSX/BOCT line just to the south, and motorists wishing to cross this line customarily use Chicago Avenue to try to find a vacant crossing.

b. Train Operating Speeds

The SEA used track chart speeds and timetable speeds in its calculation of vehicular delay. According to conversations with the SEA contractor, these speeds were adjusted in some instances to better reflect actual operating circumstances in specific areas. When adjusted, the speeds were reduced by either five or ten miles per hour.

It is obviously better to use actual operating circumstances rather than unrealistic maximum track speeds. Maximum timetable speeds can rarely be achieved on average because of track restrictions and train stops and starts which require deceleration and acceleration. Obviously, on relatively short line segments where stops and starts are frequently experienced, lower average speeds will be achieved regardless of the maximum timetable speed.

In his original calculation of crossing delay times as reflected in his verified statement in FCC-9, Dr. Andrew relied on one-half the maximum timetable speed to estimate the operating speed for each line segment in calculating the vehicle delay time at rail/highway crossings. In his second verified statement, accompanying these environmental comments, Dr. Andrew has re-calculated vehicular delay times at rail crossings using the SEA formula, corrected to reflect actual train speeds. In this calculation, Dr. Andrew uses actual speeds where they are known and surrogates for actual speeds based on other available information where actual speeds are not known. Two specific line segments are addressed below.

i. CSX/BOCT Pine Junction to Calumet Park -- The CSX/BOCT Pine Junction to Calumet Park line segment has a timetable speed of 35 mph. According to CSX's January

23, 1998 Informal Response to the FCC's Third Discovery Requests, however, this line segment is crossed at-grade by another railroad ten times in the 7.2 miles between Pine Junction and Calumet Park. Because of these frequent rail crossings, which for the most part are controlled by carriers other than CSX, CSX trains on this segment must start and stop frequently which causes a significant reduction in average operating speeds. It is not surprising then, that based on information contained in CSX's own document (see CSX 12 CO 000102), the average train speed on this line segment is only 12.0 MPH.[10/]

This information is further confirmed by the observations during the September 1997 train delay study, where the observed train speed for trains on this line was 12.5 MPH, and by radar speed checks performed by the Hammond Police Department in December 1997 that showed the average observed speed of trains actually moving on this line was 14.5 MPH.[11/] In all three instances the average train speed on this line is less than 40 percent of the maximum time table speed and also significantly less than the 25.0 MPH speed used in the SEA calculations of train delay time.

The high incidence of trains stopping on this line is also confirmed by the September 1997 train delay study. During this study there were 18 observations of trains at stopped crossings between Clark and Calumet Streets, which all cross in the Pine Junction to Calumet Park segment at grade. Expansion of these 18 observations to represent total stopped trains during a one week period yields 112 stopped trains at the observed crossing locations per week. This

---

[10/] The document is included in my workpapers.

[11/] This average speed for trains observed by radar speed checks obviously would be reduced if stopped trains were also taken into account.

equates to 16 stopped trains per day or 58 percent of the 27.6 trains per day currently moving on this segment.

While it can be argued that the planned improvements on this line by CSX will enable the average speed to increase, significantly, this hypothesis is not supported by CSX's experience on other line segments in the Chicago area. Examination of the CSX document cited above shows that the CSX Willow Creek to Pine Junction line segment, which for all but two miles has a 60 MPH maximum timetable speed limit, has an actual average train speed of only 24.5 MPH. Further, the CSX Blue Island Junction to 75th Street line segment which has a 40 MPH maximum timetable speed, has an actual average train speed of only 12.0 MPH. Stated differently, regardless of the maximum allowable timetable speed based on the class of track standard, actual operating speeds are dictated by numerous other factors, especially in areas with numerous railroad crossings. As a result, an increase in maximum timetable speed will not necessarily result in any change in actual operating speed.

Further, CSX does not control dispatching at any of the ten at-grade railroad crossings on this line segment, and in many instances, either the other railroad's trains have priority or trains are dispatched on a first come, first served basis.[12/] Even after CSX makes improvements to increase maximum train speed on this line, the dispatching train priority situation at the railroad grade crossings of this line will not change.

[12/] A list of those crossings and the dispatchings priorities, obtained from CSX during discovery, is included in my workpapers.

Moreover, the additional investment in the line from Pine Junction to Calumet Park is unlikely to result in an increase in average operating speed for two additional reason. First, CSX's investment to change from class 2 to class 3 track standard between Pine Junction and Calumet Park is most likely for capacity reasons, i.e., to allow CSX to handle the longer and heavier trains proposed in its operating plan, rather than to increase existing timetable speed on the line from 35 to 40 miles per hour. CSX proposes to increase the average train weight for trains on this segment from 4,070 gross tons per train to 5,324 gross tons per train, an increase of 31 percent.

Second, the proposed longer, heavier trains require more time to accelerate and decelerate to and from each stop. The increased acceleration and deceleration time combined with the frequent stops required by the ten rail crossings in this 7.2 mile segment, will prevent CSX from increasing its average operating speed on this line, even with the minimal increase in timetable speed from 35 to 40 miles per hour.

For all of the above reasons, I do not believe that CSX's average operating speed between Pine Junction and Calumet Park will increase above the current 12.0 mph. However, in order to be conservative, we are using vehicle delay hours for this segment based on an increase of current train speed of 10 percent or 13.2 mph. This increased train speed is used for both the Applicants' proposed operating plan and the FCC Alternative Routing Plan.

ii. <u>PRR line between Hobart and Clarke Junction</u> - The PRR line segment between Hobart and Clarke Junction has been out-of-service for approximately 10 years, and the

timetable speed limit on this line is 10 MPH. In the calculations of vehicle delay at rail crossings used in my October 21, 1997 verified statement, I assumed the continuation of the existing timetable speed for this line, which using Dr. Andrew's formula, assumes that operating speed equals one-half of this timetable speed.

When restating the vehicle delay times using the SEA formula, Dr. Andrew assumed an average operating speed on this line segment equal to 14.6 MPH. The reason for using this average train speed as follows:

On Rebuttal, for the first time, the Applicants claim an intent to restore this line to FRC Class 3 standards with a maximum timetable speed of 40 miles per hour. However, based on the percentages of maximum timetable speed developed for other CSX lines in the Chicago area as described above, CSX is likely to achieve only 36.6 percent of the maximum timetable speed or 14.6 MPH.

This percentage reduction is appropriate given CSX's intended use of the Hobart-Clarke Junction line and the existence of several railroad grade crossings of this line. CSX intends to restore service to this line to transport slow moving bulk trains, thereby removing them from its other line segments in the Four Cities region. According to CSX these other lines will be dedicated to moving high priority, service sensitive freight.

The PRR line crosses two of these high priority lines (the Porter Branch and the CSX/BOCT line) at-grade and connects with the CSX/Contrail lakefront lines at-grade. As a result, it is likely that at each of these crossings and at the connection, bulk trains will have to stop and wait

for any high priority or service sensitive train to pass prior to crossing or entering the high priority line. On a combined basis, the projected number of trains per day on these high priority lines equals 109 trains, or 4.5 trains every hour. This high frequency of high priority trains will certainly cause the heavy slow-moving bulk trains to stop and wait for priority trains to pass, thereby causing the bulk trains (with slow deceleration and acceleration speeds) to operate at much lower average speeds than the maximum timetable speed.

This situation will be exacerbated because, as noted in the previous section, the numerous railroad crossing interlockers on the CSX/BOCT Pine Junction to Calumet Park line will frequently cause trains on that line to stop. These stopped trains will most certainly have priority over the bulk trains using the Hobart-Clarke Junction line, which will be required to remain stopped until the priority trains have cleared through the area.

For all of the above reasons, we calculated vehicle delay times associated with these five trains assuming an average actual operating speed of 14.6 MPH.

c. Train Length

As stated previously, the train length information used by SEA in the DEIS is inconsistent with that found in Applicants' documents and supporting workpapers. Train length is a significant determinant in the calculation of vehicle delay hours. The difference in train lengths for current and post-acquisition for CSX line segments in the Four Cities region trains included in the DEIS in only 200 feet. Based on information found in the Applicants' documents we find

that the difference in current and post-acquisition train lengths range from a reduction of 356 feet to an increase of 1,298 feet depending on the line segment.

In response to the FCC's Second Set of Interrogatories and Document Requests, CSX provided the FCC the current and post acquisition train sizes (number of cars and tons) by line segment in the Four Cities region. Utilizing this information and information contained in CSX's 1995 R-1 Annual Report to the STB, I calculated the average train length for current and post-acquisition trains using each CSX line segments in the Four Cities region.

This train length information was used by Dr. Andrew in his calculation of vehicle delay hours for his October 21, 1997 verified statement. The information supporting my calculation of train length was included in the workpapers to my October 21, 1997 verified statement, at Bates Numbers 001191-001194 and 001159.

The table below displays the train lengths for CSX line segments relied on by the SEA in the DEIS and by Dr. Andrew in both his October 21, 1997 verified statement and his verified statement filed today.

CSX Train Lengths
Four Cities Region
(Length in feet)

		DEIS		FCC	
	Segment	Current	Post Acquisition	Current	Post Acquisition
	(1)	(2)	(3)	(4)	(5)
1.	Willow Creek to Pine Jct	6,000	6,200	4,335	5,141
2.	Pine Jct to Calumet Park	6,000	6,200	4,192	5,490
3.	Calumet Park to Willow Creek	not used	not used	4,900	4,554
4.	Hobart to Clarke Jct	6,000	6,200	---	5,306
5.	Hobart to Van Loon	not used	not used	---	5,306

3. Air Quality Issues

The SEA's air quality calculations in the DEIS understate the expected Nitrogen Oxide ("NO_x") emissions from vehicles idling at at-grade crossings due to SEA's omission of lower traffic-density grade crossings from its analysis. SEA calculated an increase in NO_x emissions of 1.01 tons per year from vehicles delayed at at-grade rail crossings with a traffic density greater than 5,000 ADT[13]. Within the Four Cities area, only 14 of the 109 at-grade crossings affected by the Conrail transaction reach the threshold ADT level. As I stated previously, the cumulative impact of delays at all affected Four Cities crossings must be included in the emissions calculations. The cumulative impact of delays at all affected crossings increase the expected NO_x emissions from vehicle delays to 4.05 tons per year, an increase of 304%.[14]

---

[13] DEIS, Appendix E, Page E-16.
[14] See PHB work papers for calculation

The Alternative Routing Plan as proposed by the FCC ameliorates the effects of these additional NO_x emissions. As I discussed above, at-grade crossing delay times decrease by 41 percent if rail traffic is rerouted according to the FCC's Alternative Routing Plan. This decrease in delay time reduces the NO_x emissions by 1.6 tons per year.

Additionally, according to the DEIS, the decrease in emissions due to truck-to-rail diversions is overstated by the Applicants. As SEA states: "As noted in previous sections, SEA acknowledges that some overestimation of the truck-to-rail diversions has probably occurred; however, the air quality analysis is based on the figures provided."[15/] While the SEA does not provide an estimated amount of the overstatement, any decrease in truck-to-rail diversions will obviously adversely impact air quality in the Four Cities area.

The increased NO_x emissions from both the inclusion of all FCC at-grade crossings and the overstatement of truck-to-rail diversions will exacerbate the negative impacts already recognized by SEA in the DEIS, but which it has elected to ignore. (For Lake County, Indiana, SEA determined that post-transaction operations in Lake County would result in an increase of 83.76 tons/year in NO_X emissions, which is well above the 25.0 tons/year in NO_x threshold level. Nevertheless, SEA proposed no mitigation.)

There are other reasons why the STB must pay close attention to the pollution impacts resulting from the Contrail transaction. First, the FCC lies in one of the most heavily polluted regions of the United States. This is confirmed by the EPA's declaration of Lake County as a

---

[15/] DEIS, Chapter 4, Page 4-55.

severe non-attainment area for NO_x emissions as well as a non-attainment area for SO_2, CO and particulate matter. Any incremental increase in emissions is sure to exacerbate these area pollutant problems.

Second, as indicated in Mr. Cervay's accompanying testimony, the Four Cities and Lake County may lose federal highway funds if they fail to comply with mandated air quality standards. According to the Northwest Indiana Regional Planning Commission ("NIRPC"), Lake County stands to lose federal funding for highway expansion if it does not come into line with highway congestion and air quality standards. This factor, along with the already severe air pollution in the area, dictates that all efforts should be made to mitigate anticipated increases in emissions. For this reason also, the FCC Alternative Routing Plan must be given serious consideration by the STB in the Final EIS.

4. Socioeconomic Impacts

The Applicants' proposed train routings impose two deleterious socioeconomic impacts on the Four Cities Consortium which are not addressed by SEA in the DEIS. Both of these negative impacts are caused by restoration of service on the PRR Hobart to Clarke Junction line.

First, the Applicants' proposed reactivation of the PRR line would impede the expansion of the Gary/Chicago Airport ("GCA"). The Four Cities have initiated several industrial and tourism development projects to expand their industrial base and to revitalize their lake front properties. These projects are contingent upon the GCA expanding its capacity to become an effective supplement to Chicago's O'Hare International Airport for both cargo and passenger

traffic. This planned expansion requires that the GCA upgrade its current FAA certification as a Reliever/General Aviation Airport to certification as a Utility/Transport airport capable of handling expanded commercial traffic. This change in certification requires expansion of the overall airport complex. Most importantly for present purposes, it requires the expansion of the airport's two existing runways and the addition of a third runway as explained in Mr. Cervay's verified statement. Currently, the GCA has the available land to accommodate the North-South runway expansion and is negotiating with the EJ&E to allow a partial expansion and addition of the East-West runways on the west side of the airport line on the east side of the airport. Reactivation of the PRR however, would negate all expansion and addition efforts.

To safely meet expansion plans and to continue existing levels of operations, the runway construction must be performed in a sequential manner with the North-South runway completed before expansion and addition to the East-West runway. This will allow for continued airport use during the construction effort. The GCA's current land holdings when combined with the currently unobstructed area at the terminus of the North-South runway may be sufficient to meet FAA vertical obstruction regulations. Reactivation of the PRR line will be viewed as a hard obstruction for this runway and will require 1,150 feet of additional unobstructed space to provide an acceptable Runway Safety Area. Since the inactive PRR line lies within the boundaries of this obstruction-free zone, reactivation of this line will halt expansion of this runway.

The second socioeconomic impact is on a proposed affordable housing project in the City of Gary. The housing development, known as Roosevelt Manor, is bounded on the north by the

inactive PRR rail line. The Broadway Area Community Development Corporation ("BACDC"), a neighborhood based 503-C3 corporation formed to promote urban redevelopment and revitalization, has incurred considerable time and expense bringing this project to fruition. Much of this time has been spent obtaining a $250,000 grant from the Department of Housing and Urban Development for down payment assistance for low-income and minority families. The BACDC's initial plans and costs estimates were made under the assumption that the line would remain inactive. Reactivation of the line, at a minimum, will require additional costs to barrier the development from the adverse impacts of the proposed rail traffic and jeopardize the considerable time and expense previously incurred.

5. Environmental Justice

Chapter 5 of the DEIS describes the potential environmental justice effects of restoring the Hobart-Clarke Junction segment of the PRR line to service[16]. The DEIS specifically addresses the noise impacts along this segment; however, other deleterious effects, most noticeably in regard to safety, will also occur.

As discussed above, the Hobart to Clarke Junction line segment is presently inactive and would, after rehabilitation, see an expected rail traffic of five trains per day. While below the SEA's eight train-per-day increase threshold for mitigation, logic dictates that an increase from zero trains per day to five trains per day substantially raises the risk of accident. This risk is magnified even further given the propensity of Four Cities' residents to disregard crossing safety devices and to drive around lowered crossing gates.

---

[16] Draft Environmental Impact Statement, Chapter 5, Page IN-76.

The SEA also did not address the issue of the population's alternative uses of the inactive line. History shows that abandoned and inactive rail lines become surrogate rights of way for foot traffic and play areas for neighborhood children. Even with community outreach programs such as Operation LifeSaver, the risk to people neighboring the track substantially increases when a rail line that has been inactive for a period of several years is reactivated.

Given the demographics of the Four Cities area, reactivation of the Hobart to Clarke Junction line segment will have a disproportionate impact on a low income and minority population. As indicated by SEA, the population impacted by this line segment is 98.7% minority and the low-income population is more than 10% higher than the low-income population for Lake County as a whole.[17] Further, as stated above, the segment is the northeastern boundary of a housing development currently planned by the City of Gary targeted at the area's minority and low-income population.

Reinstatement of train service on this line will directly impact the quality of life of those living along it by exposing the populace to higher levels of noise and placing it at greater risk of accident. This is in direct contrast to the Department of Transportation's Order to Address Environmental Justice in Minority Populations and Low-Income Populations, OST Docket No. OST - 95 - 141 (50125).[18] The order provides the following mandate related to Department of Transportation related projects:

---

[17] Draft Environmental Impact Statement, Chapter 5, Page IN-76.

[18] This order outlines the DOT's response to Executive Order 12989 of February 11, 1994 outlining mandates for environmental justice.

> The Operating Administration and other responsible DOT officials will ensure that any of their respective programs, policies, or activities that will have a disproportionately high and adverse effect on minority populations or low-income populations will only be carried out if further mitigation measures or alternatives that would avoid or reduce the disproportionately high and adverse effects are not practicable.[19/]

In this particular situation, the STB clearly has a practical alternative. The FCC's Proposed Alternative Routing Plan would negate and avoid the safety and noise issues endemic to reactivation of this line segment by rerouting rail traffic to an existing line. This will help ameliorate the affects of the Conrail transaction and meet the requirements of the DOT's environmental justice policies, which the STB has adopted.

[19/] Federal Register/Vol. 62, No. 72, Page 18380/April 15, 1997.

V. ECONOMIC IMPACT OF APPLICANTS' PROJECTED INCREASE IN RAIL TRAFFIC

As stated previously, I have quantified the economic impact related to the projected increase in Applicants' traffic above the current traffic levels as set forth in the CSX and NS Operating Plans based on SEA's vehicle delay formula and certain revisions to the data. Based on my calculations, I have concluded that the annual cost to the public living and working in the Four Cities equals $3.4 million. The net present value of the cost to the cities for a twenty year period equals $48.2 million.

The cost to the public shown above does not include, however, any quantification of numerous additional factors which should be considered by SEA. These include, for example, the lost economic value to the Four Cities if the GCA fails to become a Utility/transport airport. This would include the loss of income from expanded air passenger traffic and the development of the proposed air freight hub. In addition, the quantification does not include the lost economic value resulting from reduced development the Lake Michigan waterfront, because the public can not easily access the waterfront by air travel.

Further, my calculations do not include the reduction in the quality of life that results from increased noise from incremental rail activity. Finally, my calculations do not include any account for the value of human life that will be lost as a result of increased accidents at rail/highway crossings because of increased rail traffic.

As with the calculations in my October 21, 1997 testimony, these costs are a result of four factors: 1) lost productivity resulting from incremental vehicle delays at rail/highway crossings; 2) additional fuel and oil consumption associated with the incremental delay; 3) the incremental emissions exhausted into the atmosphere resulting from increased delays at rail crossings, and; 4) the increase in the number of rail/vehicle accidents, injuries and fatalities at rail crossings resulting from increased rail traffic.

1. Revisions to the Calculation of the Impact of Applicants' Projected Increase in Traffic

As stated above, several revisions have been made in calculating the vehicle delay hours in the Four Cities. The revisions to my October 21, 1997 calculations of the impact of Applicants' projected traffic increase on certain Four Cities rail lines are based on the following factors: 1) use of the SEA vehicle delay formula, 2) adjustments to reflect actual average operating train speeds, and 3) corrections of the crossing data for the Conrail Porter Branch between Ivanhoe and Willow Creek.

a. SEA Vehicle Delay Formula

The use of the SEA vehicle delay formula is fully discussed above and in the accompanying testimony of Dr. Andrew and will not be repeated here.

b. Train Operating Speeds

Use of the most appropriate train operating speeds has been fully discussed previously and in the accompanying testimony of Dr. Andrew. That discussion will not be repeated here;

however, a summary of the timetable and operating speeds used to calculate vehicle delay hours in both our October 21, 1997 testimony and in our current testimony is provided below.

Line Segment (1)	October 21 Testimony Maximum Train Speed (2)	October 21 Testimony Operating Train Speed (3)	February 2 Testimony Maximum Train Speed (4)	February 2 Testimony Operating Train Speed (5)
1. Willow Creek to Pine Junction	79	39.5	60	24.5
2. Pine Junction to Calumet Park	25	12.5	35	13.2
3. Calumet Park to Ivanhoe	40	20	40	20
4. Ivanhoe to Willow Creek	10	5	40	20
5. Hobart to Clarke Junction	10	5	40	14.6

c. Highway Crossings on the Conrail Porter Branch

As correctly pointed out by Applicants' Rebuttal witnesses Rooney/O'Connor (see SCX/NS-177, Vol. 2B), in my October 21 testimony I incorrectly routed both the current traffic using the Conrail Porter Branch and Applicants' projected traffic over the IHB line segment between Ivanhoe and Virginia Street, rather than on the Porter Branch between Ivanhoe and Virginia Street. As a result of this error, I included only three rail/highway crossings on this line segment rather than the actual 11 crossings that exist on the Porter Branch. In my current calculations of the impact of the Applicants' projected traffic on the Four Cities using the Applicants' operating plans, I have used the ADT, train operating speed and incidence of accidents associated with these 11 crossings.

Based on the vehicle delay hours provided by Dr. Andrew, I have calculated the costs related to each of the above factors using precisely the same methodology that I used to calculate

the associated costs in my October 21, 1997 testimony with the exception of the costs related to incremental emissions. As fully described in my earlier testimony, I relied primarily on the factors contained in the FRA's model titled, *GradeDec Model - Highway-Rail Grade Crossing Investment Decision Support Tool,* Version 1.0. A copy of that model is contained in the workpapers supporting my October 21, 1997 testimony.

d. Vehicle Emissions Costs

Vehicle delay hours at rail crossings produce costs to the public related to emissions of Hydrocarbons, Carbon Monoxide and Nitrogen Oxides. These emissions are measured in grams per hour of idling time. The table below provides the emission rates for each pollutant as contained in the DEIS for highway/rail grade crossings emissions only.

Vehicle Emission Rates Grams Per Hour of Idling

Hydrocarbons (HC) (1)	Carbon Monoxide (CO) (2)	Nitrogen Oxides (NO_x) (3)
55.05	456.85	10.35

Based on the FRA *GradeDec* Model, the cost of emissions equals $3,000 per ton for Hydrocarbons (Volatile Organic Chemicals), $4,000 per ton for Carbon Monoxide and $6,000 per ton for Nitrogen Oxides. Applying the SEA rates of emissions to the vehicle hours of delay fully developed by Dr. Andrew in his accompanying verified statement produces the grams of emissions by type of pollutant. I then converted the cost per ton to a cost per gram and applied it to the grams of pollutants emitted to yield vehicle emission costs for both the current traffic

levels and the Applicants' projected traffic. The table below shows the calculated vehicle emissions costs.

	Emissions Cost	
Line Segment (1)	Current (2)	Applicants' Proposal (3)
Willow Creek to Calumet Park	$462,985	$755,355
Hobart to Clarke Junction	---	49,411
Total	**$462,985**	**$804,766**

Source: Exhibit PHB-10.

2. Summary of Impact of Applicants' Post-Acquisition Increase in Rail Traffic on the Four Cities

The table below summarizes the lost productivity, fuel and oil consumption, emission and accident costs for both the current and Applicants' post-acquisition traffic levels. As shown in the table, Applicants' projected post-acquisition traffic levels will result in an annual additional cost to the public of $3.4 million. The net present value of this cost for a twenty-year period equals $48.2 million.

Summary of Public Costs for Current and Projected Traffic

Item (1)	Current Traffic (2)	Projected Traffic (3)	Difference (4)
1. Vehicle Delay Hours	204,385	355,265	150,880
2. Lost Productivity Cost	$3,270,166	$5,684,247	$2,414,081
3. Fuel and Oil Consumption	$180,268	$313,344	$133,076
4. Emission and Pollutants	$462,985	$804,766	$341,781
5. Accident Costs	$1,222,790	$1,755,731	$532,941
6. Total Cost to the Public	$5,136,209	$8,558,088	$3,421,879

VI. COMPARATIVE ANALYSIS OF ENVIRONMENTAL IMPACTS OF APPLICANTS' PROPOSAL AND FCC'S ALTERNATIVE ROUTING PLAN

As discussed previously, the FCC proffers alternative routings for two distinct segments of the Applicants' proposed operating plans for the region. These include 1) rerouting a portion of the traffic CSX proposes to move over the lines from Willow Creek to Pine Junction and from Pine Junction to Calumet Park to the IHB and Conrail Porter Branch lines from Calumet Park to Willow Creek via Virginia Street (Gary), and 2) rather than restoring service on the former PRR line from Hobart to Clarke Junction, routing the projected traffic for this line over a combination of the NS/NKP line from Hobart to Van Loon and the EJE line from Van Loon to Pine Junction, thus allowing movement of coal and coke by CSX to the lakefront steel mills and other bulk commodities to the CSX lakefront line.

As stated in the Summary and Conclusion Section, I have performed a comparative analysis of the Applicants' proposed operating plans for these two routes and the FCC's Alternative Routing Plan and determined that the FCC Alternative results in an annual cost savings to the public and the Applicants' of $4.2 million. The net present value of these savings for a twenty year period equals $59.3 million.

As with my October 21, 1997 testimony, my comparative analysis is based on the same four factors listed in the previous section plus the change in railroad variable operating costs and return on investment of the capital required to implement each of the alternatives. Based on my calculations the Applicants' operating costs will increase slightly under the FCC's Alternative

Routing Plan but Applicants' required return on investment of capital costs will be significantly reduced.

Applicants' required return on investment will be reduced because Applicants will be able to avoid the expenditure of funds required to reactivate the out-of-service PRR line from Hobart to Clarke Junction.

1. Revisions to the Comparative Analysis

Revisions to my comparative analysis of the Applicants' proposed operating plan for these two routes and the FCC Alternative Routing Plan are based on the following factors which have been discussed above: 1) use of the SEA vehicle delay formula as corrected in SEA's Supplemental Errata, 2) use of the SEA rate of emissions factors, 3) adjustment to more accurately reflect train operating speeds, 4) adjustments to the train length use by the SEA; and, 5) corrections to the rail/highway crossing data for the Conrail Porter Branch between Ivanhoe and Virginia Street.

In addition to these factors, four additional revisions have been made, each related to capital investment costs. First, the Applicants' capital investment required to upgrade the CSX/BOCT line from Pine Junction to Calumet Park has been reduced from the $6.6 million included in my October 21, 1997 testimony to $2.0 million. This revision is based on information provided by CSXT in its January 23, 1998 Informal Response to FCC's Third Discovery Requests.

Second, the capital investment associated with the FCC Alternative Routing Plan for Hobart to Pine Junction via Van Loon has been reduced by the $277,933 associated with the

construction of a connection at Van Loon. This is based on conversations with the EJE, which has informed the FCC that this connections already exists.

Third, the capital investment associated with the use of the IHB line between Ivanhoe and Virginia Street has been increased by $2.7 million. This increase is based on the testimony of Applicants' Rebuttal Witnesses Rooney/O'Connor, who point out that the portion of the IHB line between Ivanhoe and Chase Street must also be rehabilitated to accommodate traffic increases. Messrs. Rooney and O'Connor estimate the required rehabilitation equals $2.7 million. When added to the investment amount included in my October 21 testimony, the total rehabilitation of the IHB line Between Ivanhoe and Virginia Street equals $4.3 Million.

Finally, as stated in the October 21, 1997 verified statement of FCC witnesses Heinzmann/Dunn, the estimate of the capital expenditures to rehabilitate the PRR line to Class 2 condition equals $7,017,167.[20] In rebuttal CSX asserts for the first time that the line will be restored to Class 3 serviceable condition. To estimate the cost of this rehabilitation, I have used the restoration cost information made available by Applicants' witnesses Rooney/O'Connor regarding rehabilitation of the IHB line from Ivanhoe to Virginia Street to Class 3 conditions.

Messrs. Rooney/O'Connor use a factor of $200 per feet for this rehabilitation. I have accepted this factor and added the cost of constructing the required connections to the Porter Branch at Tolleston, the NS Wabash line, and the EJE line at Dunes. The resulting

---

[20] October 21, 1997 verified statement of Heinzman/Dunn, page 11.

rehabilitation cost for the PRR line to Class 3 condition is $13,124,856. My calculation of the rehabilitation cost of the PRR line is shown in my workpapers.

A comparative analysis of the Applicants' proposed operations and each element of the FCC's Alternative Routing Plan is presented below.

a. Willow Creek to Calumet Park

The FCC's Alternative Routing Plan shifts traffic off CSX's Willow Creek to Calumet Park line via Pine Junction (this includes the heavily-impacted CSX/BOCT line) and makes use of the IHB and Conrail Porter Branch. The FCC proposal contemplates but does not necessarily require directional traffic flow, i.e., parallel mainline tracks with the majority of traffic on these lines operating in opposite directions.[21] Operation of parallel mainlines with directional flow is a common and desirable practice in the railroad industry.

Operating in this manner will significantly reduce the volume of traffic moving on the CSX/BOCT Willow Creek to Calumet Park line via Pine Junction. Reducing the traffic on this line, which has twenty at-grade crossings over a distance of approximately seven miles alone, and placing a portion of the traffic on the grade separated IHB line, will significantly reduce the disruption of vehicular traffic in the Four Cities region. This alternative will significantly mitigate the incremental adverse economic, safety and quality-of-life impacts that would otherwise affect the public in the Four Cities region.

---

[21] The plan would also work without directional traffic flow as a means to avoid the adverse incremental impacts of the increased traffic over the CSX/BOCT line. However, the directional flow arrangement would be significantly more efficient and would also be consistent with CSX's general plan to move traffic to and from Chicago in a counterclockwise direction.

The table below shows the annual delay costs, accident costs, mileage-related railroad operating costs and return on investment for the Applicants' projected traffic using both the Applicants' proposed operating plans and the FCC's Alternative Routing Plan.

Comparison of Annual Costs for Applicant's Proposal and FCC's Alternative Routing Plan
Willow Creek to Calumet Park
(000)

Cost Category (1)	Applicants' Proposal (2)	FCC's Alternative (3)	Difference (4)
Train Delay Cost	$5,335.2	$2,995.9	$2,339.4
Vehicle Fuel Consumption Cost	$270.1	$151.7	$118.4
Vehicle Oil Consumption Cost	$24.0	$13.5	$10.5
Vehicle Emissions Cost	$755.3	$424.1	$331.2
Accident Cost	$1,728.0	$1,392.5	$335.5
Rail Operating Cost	$16,104.1	$15,981.5	$122.6
Rail Capital Investment	$340.0[1]	$1,071.6[2]	($731.6)
Net Savings			$2,716.5

[1] The required investment is estimated to equal $2,000,000 with a pre tax return on investment equal to 17 percent.

[2] Assumes capital investment to rehabilitate IHB abandoned line and construct connection to CSX (CR) equals $4,303,762 and 2,000,000 to upgrade Pine Jct to Calumet Park with a pre tax return on investment equal to 17 percent. If upon closer examination, it is determined that the bridges on the out of service portion of the IHB alternative line require rehabilitation that proves to be uneconomic, then traffic should be routed on the IHB line to the current connection with Conrail at Ivanhoe rather than to a new connection east of Tolleston. This alternative would also result in less disruption to the Four Cities than Applicants' operating plan; however, it is not as favorable as FCC's preferred route.

The productivity cost, fuel and oil costs, emissions costs, accident costs, mileage related operating costs, and the return on investment shown in the above table for both the Applicants' proposal and the FCC's Alternative Routing Plan were calculated in the same manner used in

my October 21, 1997 testimony and as described in the previous section. The calculation of these costs is shown in Exhibit PHB-11.

As demonstrated above, the FCC's Alternative Routing Plan for the movement of Applicants' projected traffic between Willow Creek and Calumet Park results in a net annual reduction in public and railroad costs equal to $2.5 million.

2. Hobart to Clarke Junction

Applicants' propose to reactivate the former PRR out-of-service rail line from Hobart to Tolleston and Tolleston to Clarke Junction. This out-of-service line has 23 at-grade crossings and two grade-separated crossings. CSX's operating plan and supporting documents indicate two distinct uses for this line. First, CSX intends to move five bulk trains per day, representing 12 million gross tons per year, over this line. CSX's January 23, 1998 Informal Responses to FCC's Third Discovery Requests indicate that these CSX trains include coal and coke moving to the lakefront steel mills and other bulk commodities moving to the Chicago area.

The second use Applicants intend for this line involves NS' service to the Gary Sugar Works, located on the former Wabash spur north of Tolleston. According to NS' January 28, 1998 Informal Responses to the FCC's Third Discovery Requests, NS plans to construct a connection between the Wabash spur and the Tolleston to Clarke Junction portion of the PRR line in order to permit NS to move traffic originating or terminating at Gary Sugar Works from the Wabash spur to the PRR line, then to the Conrail Porter Branch. This traffic can then move

in an easterly direction to Burns Harbor, IN (or vice versa in the case of traffic terminating at the Gary Sugar Works).

The FCC's Alternative Routing Plan for reactivating the Hobart to Clarke Junction line permits movement of these shipments described above, without the reactivation of the out-of-service PRR line and its 23 at-grade crossings.

a. Bulk Commodity Shipments

The FCC's Alternative Routing Plan contemplates the movement of the CSX coal and coke traffic destined to EJE-served facilities from Hobart over the NS/NKP line to Van Loon, where a connection exists with the EJE. The CSX trains would be operated by CSX crews over the EJE to the U.S. Steel Mill in Gary and other lakefront steel mills in the area. As stated previously, use of CSX crews to operate over the EJE is consistent with CSX's current plan for the movement of traffic from Pine Junction to the Gary lakefront.[22/]

Coal and Coke destined to IHB served lakefront steel mills would move, using CSX crews, from Hobart to Osborn over the NS NKP line then over the IHB from Osborn to IHB's Michigan Avenue Yard, where CSX would interchange the traffic to IHB.

[22/] Applicants' Rebuttal Witnesses Rooney/O'Connor claim that the movement of coal and coke trains over the EJE elevated line will require use of locomotive helper service to pull these heavy trains over the grade caused by elevating the line. They estimate the annual operating cost associated with the helper locomotive to equal $825,000. Based on conversations with EJE personnel regarding current operations over this line, it has been learned that NS coal and coke trains currently move over the elevated portion of the EJE using three six-axle 3,000 horsepower units, without any assistance form locomotive helpers. This is the same locomotive consist that CSX uses to move its coal and coke trains into the Chicago area. As a result, I do not believe any locomotive helper service is required.

Using the FCC Alternative Routing Plan, other bulk commodity traffic CSX plans to move over the PRR line into the Chicago area, would move from Hobart to Van Loon, then to the EJE's Kirk Yard and then into CSX's Curtis yard. From Curtis yard the traffic can move into Chicago over the CSX lakefront line.

Applicants' Rebuttal witnesses Rooney/O'Connor claim that the FCC's Alternative Routing Plan will leave this traffic "up in the air" on EJE's elevated north/south line, greatly complicating the connection to CSX's mainline and requiring a disruptive at-grade crossing of Conrail's lakefront line (to be acquired by NS). This is not the case. A connection in fact exists between EJE's elevated line and CSX's Curtis Yard. This connection, which uses the EJE overhead bridge to cross the CSX and Conrail lakefront lines, is clearly shown on EJE's track engineering map included in my workpapers. CSX trains using the EJE elevated line would cross over the CSX and Conrail lines towards EJE's Kirk Yard until they clear the switch for the connection to Curtis Yard, then shove to CSX's Curtis Yard. This is the same move that is made currently to interchange traffic from EJE to CSX.

b. NS Sugar Spur Traffic

The FCC's Alternative Routing Plan accommodates the NS Gary Sugar Works traffic through the construction of a connection between the CSX lakefront line and the existing Conrail lakefront line just east of Pine Junction. This connection would permit NS to move traffic originated at the Gary Sugar Works along the Wabash spur, in a reverse move, to its current connection with the CSX Pine Junction to Calumet Park line. Once on the CSX Pine Junction

to Calumet Park line, the traffic can move forward through Pine Junction onto the CSX lakefront line then through the new connection with the existing Conrail lakefront line and east to Burns Harbor, IN (which is the staging point for this traffic).

Applicants' Rebuttal witnesses Rooney/O'Connor object to this routing and the connection at Pine Junction because they claim it would again require a disruptive at-grade crossing of Conrail's busy Chicago-Toledo mainline. This objection is misplaced, because this connection would be used by only one train in each direction each day, and not by all trains CSX intends to route over the PRR line. Thus any disruption that may occur as a result of NS service to the Gary Sugar Works would be minimal. Further, one must question the wisdom of restoring service to the PRR line and its 23 rail/highway crossings through a low income, minority area just to accommodate one train a day to the Gary Sugar Works in light of the fact that all of CSX's planned trains for this line can be accommodated using the FCC's Alternative Routing Plan.

The table below shows the delay costs, accident costs, mileage related railroad operating costs and return on investment for the Applicants' projected traffic using both the Applicants' proposed operating plan and the FCC's Alternative Routing Plan for the planned movements on the out-of-service PRR line.

Comparison of Costs for Applicants' Proposal and FCC's Alternative
Hobart to Pine Jct
(000)

Item (1)	Applicants' Proposal (2)	FCC's Alternative (3)	Net (4)
Delay Cost	$349.0	$438.5	$(89.5)
Vehicle Fuel Consumption Cost	$17.7	$22.2	$(4.5)
Vehicle Oil Consumption Cost	$1.6	$2.0	$(0.4)
Vehicle Emissions Cost	$49.4	$62.1	$(12.7)
Accident Cost	$27.8	$241.6	$(213.8)
Rail Operating Cost[1/]	$1,202.8	$1,378.5	$(175.7)
Rail Capital Investment[2/]	$2,231.2	$47.2	$2,184.0
Net Savings (Cost)			**$1,687.4**

1/ Includes trackage rights payment of 3 mills per gross ton-mile.

2/ Assumes capital investment to rehabilitate PRR abandoned line and construct connections at Tolleston, Wabash and Dunes equals $13,124,856 with a pretax return on investment equal to 17 percent, and assumes capital investment to construct connections at Pine Jct equal $277,933 with a pre-tax return on investment equal to 17 percent.

As with the comparative analysis of the Willow Creek to Calumet Park lines, the productivity cost, fuel and oil costs, emissions cost, accident cost, the railroads' variable operating costs and the capital investment requirements shown in the above table for both the Applicants' proposal and the FCC's Alternative Routing Plan were calculated in the same

manner as in my October 21, 1997 testimony and as described in the previous section. The calculation of these costs is shown in Exhibit PHB-12.

Two additional issues must be addressed with respect to the calculation of the Applicants' variable cost as it relates to the FCC's Alternative Routing Plan. First, Witnesses Rooney/O'Connor argue that I have understated the trackage rights payment from CSX to NS and EJE for use of their facilities. My trackage rights payment has been calculated based on the fee of 3.0 mills per gross ton-mile on unit train traffic paid by Burlington Northern & Santa Fe ("BNSF") to Union Pacific Railroad Company ("UP") as approved by the STB in the recent proceedings involving UP's acquisition of Southern Pacific Railroad Company ("SP"). This payment is certainly an appropriate measure of the trackage rights fee payable by CSX to EJE.

Second, Witnesses Rooney/O'Connor claim that the FCC plan understates CSX's variable cost for the Hobart to Van Loon to Pine Junction route because it fails to account for the increased costs associated with mileage payments to shippers using their own railcars. To the extent that this is true, any understatement is insignificant for three reasons. First the FCC Alternative route is only four miles longer than that proposed by Applicants. Second, by CSX's own admission in its Informal Response to FCC's Third Discovery Requests, the coal and coke trains intended to move on the PRR rail line move in railroad-provided cars for which no mileage payment is required. Third, to the extent that other bulk commodity traffic moves over this alternative route it will move at least in part in railroad-provided cars, in which event no mileage payment is warranted.

As demonstrated above, the FCC's Alternative Routing Plan for the movement of Applicants' projected traffic between Hobart and Clarke Junction results in a net annual reduction in public and railroad costs equal to $2.5 million annually. When combined with the net annual reduction of $1.7 million for movement of the traffic between Willow Creek and Calumet Park, this produces a total net savings for the FCC's proposal of $4.2 million a year as compared to the Applicants' plans.

VII. CONCLUSION

The present levels of rail traffic in the Four Cities region cause significant safety problems and disruption of motor vehicle movements throughout the entire Four Cities region. The present situation is barely manageable, especially with regard to the provision of emergency services by the local municipalities. Applicants' projected increase in rail traffic on certain rail lines in the Four Cities region will exacerbate this situation and cause significant additional negative impacts to the Four Cities related to safety, increased vehicle delays, increased emissions in an area classified as a non-attainment area, land use, economic development and socioeconomic factors.

The SEA's approach in the DEIS does not lead to mitigation actions which address all serious environmental impacts and I believe that the Four Cities region is far more negatively impacted than SEA's conclusions in the DEIS indicate. Further, I believe these negative impacts must be thoroughly evaluated by the STB and mitigation actions imposed as a condition of this proceeding.

Finally, I believe the Alternative Routing Plan proposed by the FCC represents a reasonable and operationally feasible alternative to the operating plan proposed by the Applicants, and one which will mitigate many of the negative impacts related to the increased rail traffic proposed by Applicants, without inhibiting the movement of Applicants' traffic through the region.

VERIFICATION

COMMONWEALTH OF VIRGINIA)
)
CITY OF ALEXANDRIA)

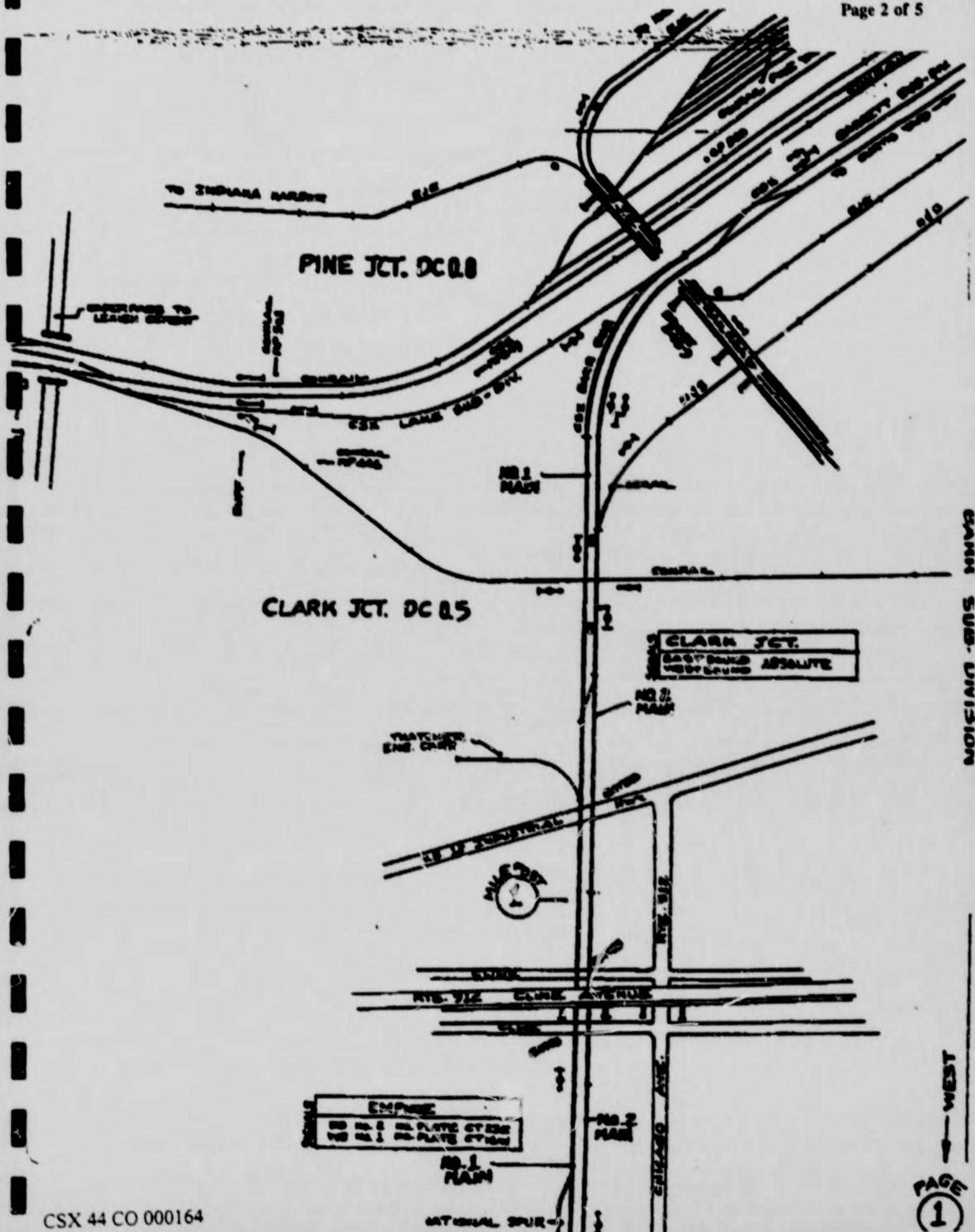
PHILIP H. BURRIS, being duly sworn, deposes and says that he has read the foregoing statement, knows the contents thereof and that the same are true as stated.

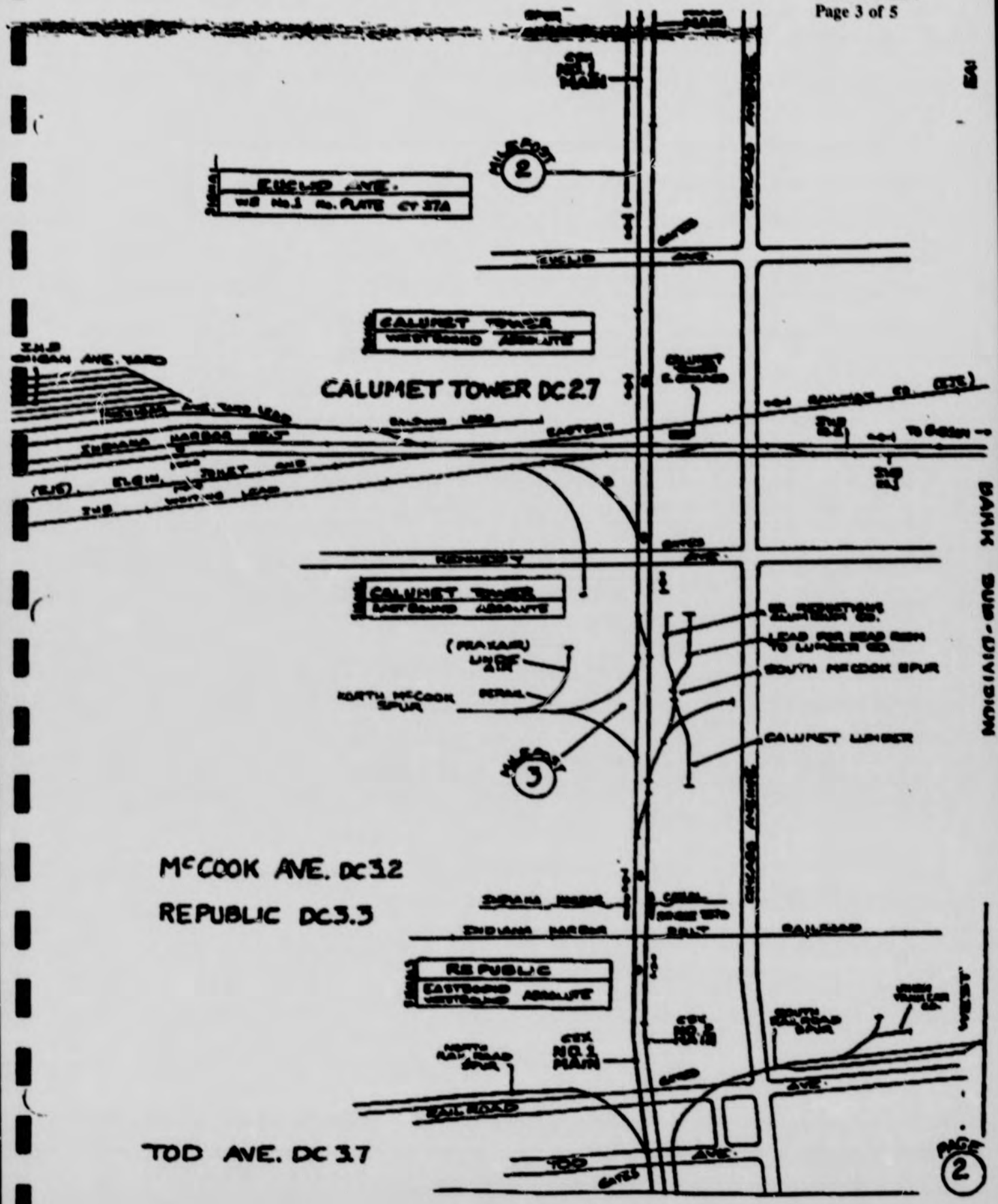
Philip H. Burris

Sworn to and subscribed
before me this 2nd day
of February, 1998.

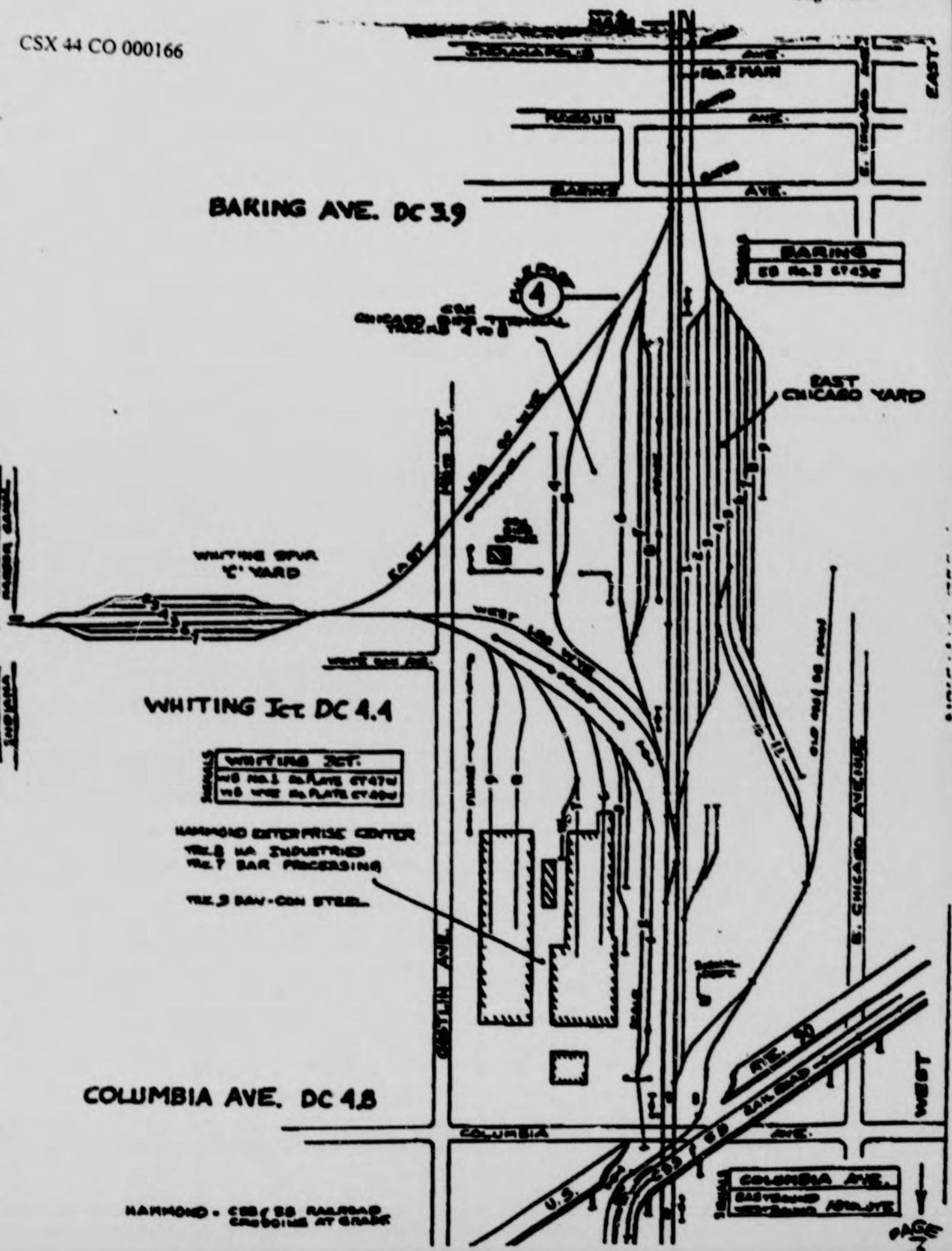
Witness my hand and official seal.

12/31/98

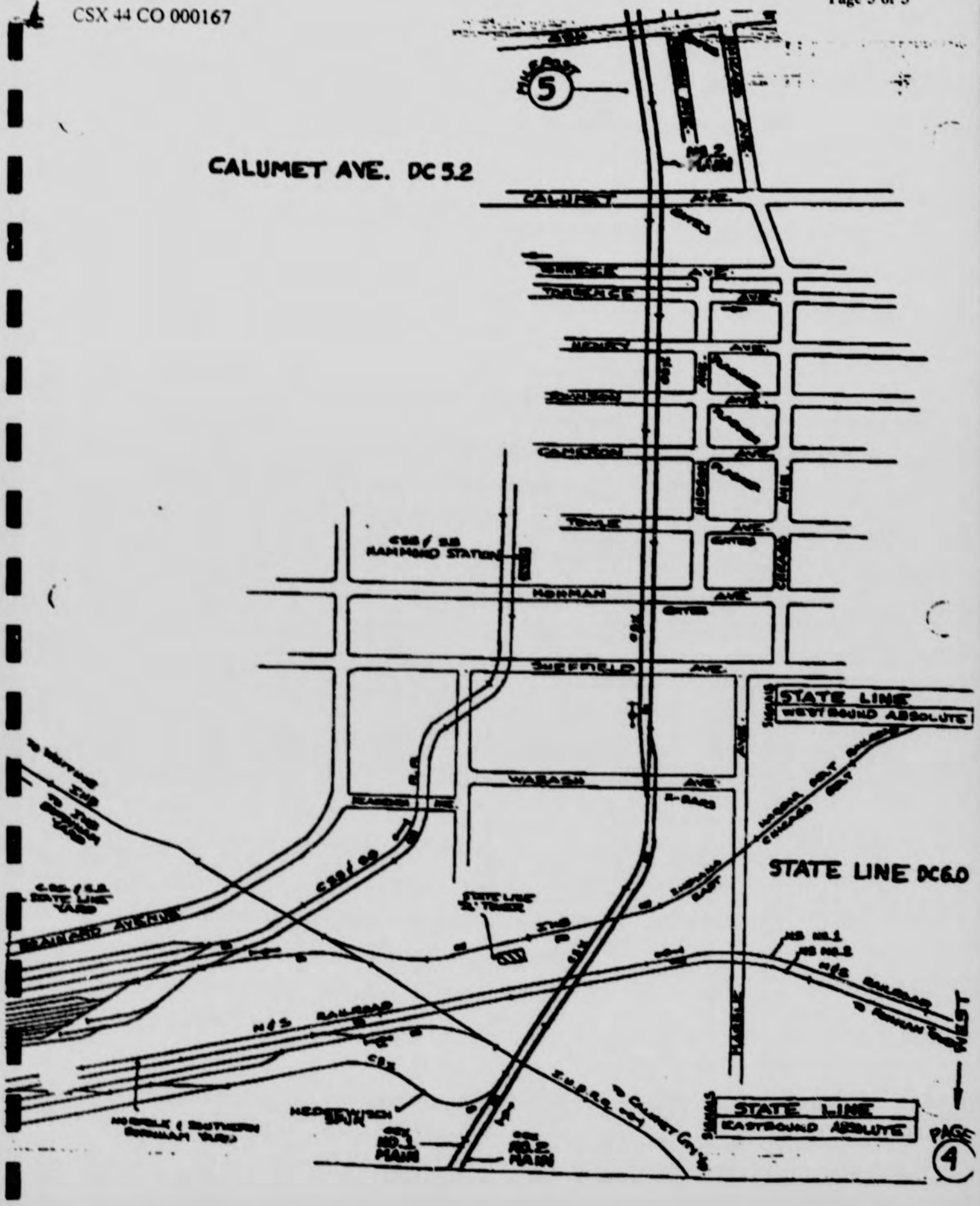

PINE JCT. DC 0.0
CLARK JCT. DC 0.5
CLARK JCT.
CLARK SUB-DIVISION
WEST
PAGE 1


EUCLID AVE.
CALUMET TOWER
WESTBOUND ARRIVE
CALUMET TOWER DC 27
CALUMET TOWER
EASTBOUND ARRIVE
(FRANKLIN) LINDEN AVE.
NORTH McCOOK SPUR
SOUTH McCOOK SPUR
CALUMET LUMBER
McCOOK AVE. DC 32
REPUBLIC DC 33
REPUBLIC
EASTBOUND ARRIVE
TOD AVE. DC 37
TOD
AVE.
RAILROAD
CHICAGO AVENUE
MAIN LINE
SUB-DIVISION

CSX 44 CO 000166



CSX 44 CO 000167



STB FD 33388 2-2-98 K 185492 4/5

Summary of Cost to the Public
Current Traffic and Applicants' Post-Acquisition Projected Traffic
(Dollars in 000's)

Item	Current Traffic	Projected Traffic	Difference
Train Delay Cost 1/	$3,270.2	$5,684.2	$2,414.1
Vehicle Fuel Consumption Cost 1/	$165.6	$287.8	$122.2
Vehicle Oil Consumption Cost 1/	$14.7	$25.6	$10.9
Emmission Costs 2/	$463.0	$804.8	$341.8
Accident Cost 3/	$1,222.8	$1,755.7	$532.9
Total Difference			$3,421.9

1/ page 2
2/ page 5
3/ Page 7

Comparison of Vehicle Delay Costs between Current Traffic and Applicants Post-Acquisition Projected Traffic

Item	Current Traffic	Projected Traffic
1. Daily Delay Hours	559.96	973.33
2. Total per Year	**204,385**	**355,265**
Delay Cost		
3. Occupancy Factor	1.6	1.6
4. Hourly Delay Cost per Person	10	10
5. Annual Delay Cost	**$3,270,166**	**$5,684,247**
Fuel Cost		
6. Fuel Idle Consumption Rate (gallons per minute)	0.009	0.009
7. Fuel Cost per Gallon	$1.50	$1.50
8. Fuel Cost per Day	$453.57	$788.40
9. Annual Fuel Cost	**$165,552**	**$287,765**
Oil Cost		
10. Oil Idle Consumption Rate (gallons per minute)	0.0003	0.0003
11. Oil Cost per Gallon	4	4
11. Oil Cost per Day	$40.32	$70.08
12. Annual Oil Cost	**$14,716**	**$25,579**
13. Total	**$3,450,434**	**$5,997,591**

Comparison of Emissions Costs between Current Traffic and Applicants Projected Traffic

	Current			Projected Traffic		
	VOC Emissions	NOX Emissions	CO Emissions	VOC Emissions	NOX Emissions	CO Emissions
Willow Creek to Pine Junction						
a. Emission Rates (grams per hr of idling) 1/	55.05	10.35	456.85	55.05	10.35	456.85
b. Daily Delay Hours 2/	23.24	23.24	23.24	53.59	53.59	53.59
c. Emissions Cost per gram 3/	$0.0033	$0.0066	$0.0044	$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost	$4.23	$1.59	$46.82	$9.76	$3.67	$107.97
e. Total Annual Emissions Cost	$1,544	$581	$17,090	$3,562	$1,339	$39,408
Pine Junction to Calumet Park						
a. Emission Rates (grams per hr of idling) 1/	55.05	10.35	456.85	55.05	10.35	456.85
b. Daily Delay Hours 2/	495.23	495.23	495.23	816.58	816.58	816.58
c. Emissions Cost per gram 3/	$0.0033	$0.0066	$0.0044	$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost	$90.17	$33.91	$997.74	$148.68	$55.91	$1,645.17
e. Total Annual Emissions Cost	$32,912	$12,376	$364,177	$54,269	$20,406	$600,488

Comparison of Emissions Costs between Current Traffic and Applicants Projected Traffic

	Current			Projected Traffic		
	VOC Emissions	NOX Emissions	CO Emissions	VOC Emissions	NOX Emissions	CO Emissions
Calumet Park to Willow Creek (via IHB)						
a. Emission Rates (grams per hr of idling) 1/	55.05	10.35	456.85	55.05	10.35	456.85
b. Daily Delay Hours 2/	41.49	41.49	41.49	43.40	43.40	43.40
c. Emissions Cost per gram 3/	$0.0033	$0.0066	$0.0044	$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost	$7.55	$2.84	$83.59	$7.90	$2.97	$87.44
e. Total Annual Emissions Cost	$2,757	$1,037	$30,510	$2,884	$1,085	$31,915
Total Willow Creek to Calumet Park to Willow Creek (via IHB)	**$37,214**	**$13,993**	**$411,777**	**$60,714**	**$22,830**	**$671,811**
Sum of all emissions			**$462,985**			**$755,355**

Comparison of Emissions Costs between Current Traffic and Applicants Projected Traffic

	Current			Projected Traffic		
	VOC Emissions	NOX Emissions	CO Emissions	VOC Emissions	NOX Emissions	CO Emissions
Hobart to Tolleston						
a. Emission Rates (grams per hr of idling) 1/				55.05	10.35	456.85
b. Daily Delay Hours 2/				40.52	40.52	40.52
c. Emissions Cost per gram 3/				$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost				$7.38	$2.77	$81.64
e. Total Annual Emissions Cost				$2,693	$1,013	$29,797
Tolleston to Clarke Jct./Michigan Yard						
a. Emission Rates (grams per hr of idling) 1/				55.05	10.35	456.85
b. Daily Delay Hours 2/				19.24	19.24	19.24
c. Emissions Cost per gram 3/				$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost				$3.50	$1.32	$38.76
e. Total Annual Emissions Cost				$1,279	$481	$14,148
Hobart to Clarke Jct.	**$0**	**$0**	**$0**	**$3,972**	**$1,493**	**$43,946**
			$0			**$49,411**
Grand Total	**$37,214**	**$13,993**	**$411,777**	**$64,686**	**$24,323**	**$715,757**
Sum of all emissions			**$462,985**			**$804,766**

1/ DEIS
2/ PHB Workpapers
3/ GradeDec Model - Converted to cost per gram from cost per ton

Comparison of Accident Costs between Current Traffic and Applicants Projected Traffic

Accidents	Incidents		Cost Per Incident	Cost	
	Current Traffic	Projected Traffic 1/		Current Traffic	Projected Traffic
Willow Creek to Pine Junction					
Property Damage	0.8222	1.4361	$50,000	$41,110	$71,803
Injury	0.2088	0.3647	$500,000	$104,400	$182,346
Fatality	0.1116	0.1949	$3,000,000	$334,800	$584,764
Subtotal				$480,310	$838,912
Pine Junction to Calumet Park					
Property Damage	1.2851	1.5505	$50,000	$64,255	$77,525
Injury	0.2893	0.3490	$500,000	$144,650	$174,523
Fatality	0.0594	0.0717	$3,000,000	$178,200	$215,002
Subtotal				$387,105	$467,051
Calumet Park to Willow Creek (via IHB)					
Property Damage	0.9215	1.0943	$50,000	$46,075	$54,714
Injury	0.2202	0.2615	$500,000	$110,100	$130,744
Fatality	0.0664	0.0789	$3,000,000	$199,200	$236,550
Subtotal				$355,375	$422,008
Total Willow Creek to Calumet Park to Willow Creek (via IHB)				**$1,222,790**	**$1,727,971**

Comparison of Accident Costs between Current Traffic and Applicants Projected Traffic

Accidents	Incidents		Cost Per Incident	Cost	
	Current Traffic	Projected Traffic 1/		Current Traffic	Projected Traffic
Hobart to Tolleston					
Property Damage	-----	0.0412	$50,000	$0	$2,060
Injury	-----	0.0108	$500,000	$0	$5,400
Fatality	-----	0.0019	$3,000,000	$0	$5,700
Subtotal				$0	$13,160
Tolleston to Clarke Junction					
Property Damage	-----	0.0670	$50,000	$0	$3,350
Injury	-----	0.0153	$500,000	$0	$7,650
Fatality	-----	0.0012	$3,000,000	$0	$3,600
Subtotal				$0	$14,600
Total Hobart - Clarke Jct.				**$0**	**$27,760**
Grand Total				**$1,222,790**	**$1,755,731**

1/ Incidents for projected traffic equals current traffic increased by the change in the number of trains for each line segment

Comparison of Costs for Applicants' Proposal and FCC's Alternative
Willow Creek to Calumet Park
(Dollars in 000's)

Item	Applicants' Proposal	FCC's Alternative	Difference
Train Delay Cost	$5,335.2	$2,995.9	$2,339.4
Vehicle Fuel Consumption Cost	$270.1	$151.7	$118.4
Vehicle Oil Consumption Cost	$24.0	$13.5	$10.5
Emmission Costs	$755.3	$424.1	$331.2
Accident Cost	$1,728.0	$1,392.5	$335.5
Rail Operating Cost	$16,104.1	$15,981.5	$122.6
Rail Capital Investment	$340.0 1/	$1,071.6 2/	($731.6)
Net Savings (Cost)			$2,526.0

1/ Assumes upgrade of line from 25mph to 40mph, plus installation of a Centralized Traffic Control System. The required investment is estimated to equal $2,000,000 with a pre tax return on investment equal to 17 percent..

2/ Assumes capital investment to rehabilitate IHB abandoned line and construct connection to CSX (CR) and upgrade Pine Jct to Calumet equals $6,303,762 with a pre tax return on investment equal to 17 percent..

Comparison of Vehicle Delay Costs Between Applicants' Projected Traffic and FCC's Alternative Willow Creek to Calumet Park to Willow Creek (via IHB/Conrail)

Item	Applicants' Proposal	FCC's Alternative
1. Daily Delay Hours	913.57	512.99
2. Total per Year	**333,453**	**187,241**
Delay Cost		
3. Occupancy Factor	1.6	1.6
4. Hourly Delay Cost per Person	10	10
5. Annual Delay Cost	**$5,335 249**	**$2,995,862**
Fuel Cost		
6. Fuel Idle Consumption Rate (gallons per minute)	0.009	0.009
7. Fuel Cost per Gallon	$1.50	$1.50
8. Fuel Cost per Day	$739.99	$415.52
9. Annual Fuel Cost	**$270,097**	**$151,665**
Oil Cost		
10. Oil Idle Consumption Rate (gallons per minute)	0.0003	0.0003
11. Oil Cost per Gallon	4	4
11. Oil Cost per Day	$65.78	$36.94
12. Annual Oil Cost	**$24,009**	**$13,481**
13. Total	**$5,629,354**	**$3,161,008**

Comparison of Emissions Costs between Applicants' Projected Traffic and FCC's Alternative

	Applicants' Projected			FCC's Alternative		
	VOC Emissions	NOX Emissions	CO Emissions	VOC Emissions	NOX Emissions	CO Emissions
Willow Creek to Pine Junction						
a. Emission Rates (grams per hr of idling) 1/	55.05	10.35	456.85	55.05	10.35	456.85
b. Daily Delay Hours 2/	53.59	53.59	53.59	30.40	30.40	30.40
c. Emissions Cost per gram 3/	$0.0033	$0.0066	$0.0044	$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost	$9.76	$3.67	$107.97	$5.54	$2.08	$61.25
e. Total Annual Emissions Cost	$3,562	$1,339	$39,408	$2,020	$760	$22,355
Pine Junction to Calumet Park						
a. Emission Rates (grams per hr of idling) 1/	55.05	10.35	456.85	55.05	10.35	456.85
b. Daily Delay Hours 2/	816.58	816.58	816.58	409.52	409.52	409.52
c. Emissions Cost per gram 3/	$0.0033	$0.0066	$0.0044	$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost	$148.68	$55.91	$1,645.17	$74.56	$28.04	$825.06
e. Total Annual Emissions Cost	$54,269	$20,406	$600,488	$27,216	$10,234	$301,148

Comparison of Emissions Costs between Applicants' Projected Traffic and FCC's Alternative

	Applicants' Projected			FCC's Alternative		
	VOC Emissions	NOX Emissions	CO Emissions	VOC Emissions	NOX Emissions	CO Emissions
Calumet Park to Willow Creek (via IHB)						
a. Emission Rates (grams per hr of idling) 1/	55.05	10.35	456.85	55.05	10.35	456.85
b. Daily Delay Hours 2/	43.40	43.40	43.40	73.07	73.07	73.07
c. Emissions Cost per gram 3/	$0.0033	$0.0066	$0.0044	$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost	$7.90	$2.97	$87.44	$13.30	$5.00	$147.21
e. Total Annual Emissions Cost	$2,884	$1,085	$31,915	$4,856	$1,826	$53,733
Total Willow Creek to Calumet Park to Willow Creek (via IHB)	**$60,714**	**$22,830**	**$671,811**	**$34,093**	**$12,820**	**$377,237**
Sum of all emissions			**$755,355**			**$424,149**

1/ DEIS
2/ PHB Workpapers
3/ GradeDec Model - Converted to cost per gram from cost per ton

Comparison of Accident Costs between Applicants Projected Traffic and FCC's Traffic

Accidents	Incidents		Cost Per Incident	Cost	
	Projected Traffic 1/	FCC's Traffic		Projected Traffic	FCC's Traffic
Willow Creek to Pine Junction					
Property Damage	1.4361	0.8185	$50,000	$71,803	$40,924
Injury	0.3647	0.2079	$500,000	$182,346	$103,928
Fatality	0.1949	0.1111	$3,000,000	$584,764	$333,285
Subtotal				$838,912	$478,137
Pine Junction to Calumet Park					
Property Damage	1.5505	0.7776	$50,000	$77,525	$38,879
Injury	0.3490	0.1750	$500,000	$174,523	$87,524
Fatality	0.0717	0.0359	$3,000,000	$215,002	$107,824
Subtotal				$467,051	$234,227
Calumet Park to Willow Creek (via IHB)					
Property Damage	1.0943	1.8040	$50,000	$54,714	$90,198
Injury	0.2615	0.4265	$500,000	$130,744	$213,238
Fatality	0.0789	0.1256	$3,000,000	$236,550	$376,716
Subtotal				$422,008	$680,152
Total Willow Creek to Calumet Park to Willow Creek (via IHB)				**$1,727,971**	**$1,392,515**

1/ Incidents for projected traffic equals current traffic increased by the change in the number of trains for each line segment

Comparison of Costs for Applicants' Proposal and FCC's Alternative
Hobart to Pine Jct.
(Dollars in 000's)

Item	Applicants' Proposal	FCC's Alternative	Difference
Train Delay Cost	$349.0	$438.5	($89.5)
Vehicle Fuel Consumption Cost	$17.7	$22.2	($4.5)
Vehicle Oil Consumption Cost	$1.6	$2.0	($0.4)
Emmission Costs	$49.4	$62.1	($12.7)
Accident Cost	$27.8	$241.6	($213.8)
Rail Operating Cost	$1,202.8	$1,378.5	($175.7)
Rail Capital Investment	$2,231.2 1/	$47.2 2/	$2,184.0
Net Savings (Cost)			$1,687.4

2/ Assumes capital investment to rehabilitate PRR abandoned line and construct connections at Tolleston, Dunes and Wabash equals $13,124,856 with a pre tax return on investment equal to 17 percent.

3/ Assumes capital investment to construct connection at Pine Jct equal $277,933 with a pre tax return on investment equal to 17 percent.

Comparison of Vehicle Delay Costs Between Applicants' Projected Traffic and FCC's Alternative
Hobart to Pine Jct.

Item	Applicants' Proposal	FCC's Alternative
1. Daily Delay Hours	59.76	75.08
2. Total per Year	**21,812**	**27,404**
Delay Cost		
3. Occupancy Factor	1.6	1.6
4. Hourly Delay Cost per Person	10	10
5. Annual Delay Cost	**$348,998**	**$438,467**
Fuel Cost		
6. Fuel Idle Consumption Rate (gallons per minute)	0.009	0.009
7. Fuel Cost per Gallon	$1.50	$1.50
8. Fuel Cost per Day	$48.41	$60.81
9. Annual Fuel Cost	**$17,668**	**$22,197**
Oil Cost		
10. Oil Idle Consumption Rate (gallons per minute)	0.0003	0.0003
11. Oil Cost per Gallon	4	4
11. Oil Cost per Day	$4.30	$5.41
12. Annual Oil Cost	**$1,570**	**$1,973**
13. Total	**$368,237**	**$462,638**

Comparison of Emissions Costs between Hobart to Pine Jct.

	Applicants' Projected			FCC's Alternative		
	VOC Emissions	NOX Emissions	CO Emissions	VOC Emissions	NOX Emissions	CO Emissions
Hobart to Tolleston						
a. Emission Rates (grams per hr of idling) 1/	55.05	10.35	456.85			
b. Daily Delay Hours 2/	40.52	40.52	40.52			
c. Emissions Cost per gram 3/	$0.0033	$0.0066	$0.0044			
d. Daily Emissions Cost	$7.38	$2.77	$81.64			
e. Total Annual Emissions Cost	$2,693	$1,013	$29,797			
Tolleston to Clarke Jct/ Michigan Yard						
a. Emission Rates (grams per hr of idling) 1/	55.05	10.35	456.85			
b. Daily Delay Hours 2/	19.24	19.24	19.24			
c. Emissions Cost per gram 3/	$0.0033	$0.0066	$0.0044			
d. Daily Emissions Cost	$3.50	$1.32	$38.76			
e. Total Annual Emissions Cost	$1,279	$481	$14,148	$0	$0	$0

Comparison of Emissions Costs between Applicants' Projected Traffic and FCC's Alternative

	Applicants' Projected			FCC's Alternative		
	VOC Emissions	NOX Emissions	CO Emissions	VOC Emissions	NOX Emissions	CO Emissions
Hobart - Pine Jct (NS/EJE) or Michigan Yard (NS/IHB)						
a. Emission Rates (grams per hr of idling) 1/				55.05	10.35	456.85
b. Daily Delay Hours 2/				75.08	75.08	75.08
c. Emissions Cost per gram 3/				$0.0033	$0.0066	$0.0044
d. Daily Emissions Cost				$13.67	$5.14	$151.26
e. Total Annual Emissions Cost				$4,990	$1,876	$55,212
Total Hobart to Pine Jct/Michigan Yard	**$3,972**	**$1,493**	**$43,946**	**$4,990**	**$1,876**	**$55,212**
Sum of all emissions			**$49,411**			**$62,077**

1/ DEIS
2/ PHB Workpapers
3/ GradeDec Model - Converted to cost per gram from cost per ton

Comparison of Accident Costs between Applicants Projected Traffic and FCC's Traffic

Accidents	Incidents		Cost Per Incident	Cost	
	Projected Traffic 1/	FCC's Traffic		Projected Traffic	FCC's Traffic
Hobart to Tolleston					
Property Damage	0.0412	-----	$50,000	$2,060	$0
Injury	0.0108	-----	$500,000	$5,400	$0
Fatality	0.0019	-----	$3,000,000	$5,700	$0
Subtotal				$13,160	$0
Tolleston to Clarke Junction/Michigan Yard					
Property Damage	0.0670	-----	$50,000	$3,350	$0
Injury	0.0153	-----	$500,000	$7,650	$0
Fatality	0.0012	-----	$3,000,000	$3,600	$0
Subtotal				$14,600	$0
Total Hobart to Pine Jct/Michigan Yard				**$27,760**	**$0**
Hobart - Pine Jct (NS/EJE) or Michigan Yard (NS/IHB)					
Property Damage	0.0000	0.5966	$50,000	$0	$29,828
Injury	0.0000	0.1506	$500,000	$0	$75,292
Fatality	0.0000	0.0455	$3,000,000	$0	$136,472
Total				**$0**	**$241,592**

1/ Incidents for projected traffic equals current traffic increased by the change in the number of trains for each line segment

ANDREW

BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC.,
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASES/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

Verified Statement
of
Gary M. Andrew, Ph.D.
Senior Consultant
L. E. Peabody & Associates, Inc.

On Behalf of the
Four-City Consortium

Due Date: February 2, 1998

TABLE OF CONTENTS

LIST OF EXHIBITS

EXHIBIT NO. (1)	TITLE (2)
GMA-1	Interlockers Between Pine Junction and Barr Yard
GMA-2	Revised Table 5-IN-9 (FCC)
GMA-3	Revised Table 5-IN-45 (FCC)
GMA-4	Supplemental Table 5-IN-Supplemental

LIST OF TABLES

I. INTRODUCTION

A. QUALIFICATIONS

My name is Gary Martin Andrew. I am a Senior Consultant with the economic consulting firm of L.E. Peabody and Associates, Inc. located at 1501 Duke Street, Suite 200, Alexandria, Virginia 22314. My resume and qualifications are set forth in my earlier Verified Statement in this proceeding which was included in the Four City Consortium's Comments and Request for Conditions filed October 21, 1997 (FCC-9).

B. ENGAGEMENT

I was requested by the Four City Consortium[1/] ("FCC") to review and prepare written comments on the Draft Environmental Impact Statement ("DEIS") issued by the Surface Transportation Board in Finance Docket No. 33388. In particular, I was asked to concentrate on the part of Chapter 5 of Volume 3A that deals with the impact on vehicular traffic at rail/highway grade crossings and the corollary impacts on the environment that will result from the proposed CSX/NS acquisition of Conrail ("Applicants' Proposal").

1/ The Four City Consortium consists of the cities of East Chicago, Indiana; Hammond, Indiana; Gary Indiana; and, Whiting, Indiana.

II. SUMMARY AND CONCLUSIONS

I have reviewed the portion of the DEIS and associated workpapers that consider the environmental impact of vehicular traffic delays created by the Applicants' Proposal in the Four Cities. Based on this review, my earlier work conducted on this subject[2/], and further analyses I have revised the DEIS calculations by: 1) correcting certain errors in the DEIS grade crossing delay formula; 2) using data consistent with my earlier empirical traffic study, the Applicants' submissions and responses to discovery requests; and, 3) using data from all impacted at-grade crossings. With these additions and corrections, I have developed traffic delay statistics with the same basic methodology as used by the DEIS.

Table 1 shows the revised traffic delay statistics for the following three scenarios: Current operating conditions (Column 2); Applicants' Proposal (Column 3); and, the FCC Alternative Routing Plan (Column 4). Lines 13, 14 and 15 of Table 1 develop the differences between current conditions and the two proposals for the future. The Applicants' Proposal causes an additional 150,879 hours of vehicle delay per year (Line 13). The FCC Alternative Routing Plan causes an additional 10,258 hours of vehicle delay per year (Line 14). The FCC Alternative Routing Plan thus will prevent 140,621 vehicle delay hours per year when compared with the Applicants' Proposal (Line 15).

[2/] See my earlier Verified Statement in FCC-9.

Table 1
Vehicle Delays

Segment	Vehicle Hours of Delay Per Day			
		Post Acquisition Proposal		Difference
	Current	Applicants	FCC	Applicants'-FCC
(1)	(2)	(3)	(4)	(5)
1. Willow Creek, IN to Ivanhoe, IN	41.49	43.4	54.31	-10.91
2. Willow Creek, IN to Pine Jct, IN	23.24	53.59	30.4	23.19
3. Pine Jct, IN- Barr Yard, IL (Calumet)	495.23	816.58	409.52	407.07
4. Gary to Illinois State Line	0	0	18.76	-18.76
5. Hobart to Tolleston, IN	not used	40.52	not used	40.52
6. Tolleston, IN to Clarke Jct, IN	not used	9.71	not used	9.71
7. Hobart, IN to Clarke Jct, IN (via Van Loon/EJE)	not used	not used	57.95	-57.95
8. Van Loon to Osborne	not used	not used	5.7	-5.7
9. Osborne to Michigan Ave. Yard, IN	not used	7.79	11.43	-3.64
10. Tolleston to IHB (via Porter Branch)	not used	1.74	not used	1.74
11. **Total Vehicle Delay Hours per Day**	559.966	973.332	588.069	385.262
Vehicle Hours of Delay Per Year				
12. **Total Vehicle Delay Hours per Year**	204,387	355,266	214,645	140,621
13. **Yearly Difference between Applicants and Current Totals**		150,879		
14. **Yearly Difference between FCC and Current Totals**			10,258	
15. **Year Difference between Applicants and FCC Totals**				140,621

Source: EXCEL Files Weekday_ADT.xls and Nite_WkEnd_ADT.xls.

Based upon my review of the DEIS and associated workpapers, I have concluded the following:

- The DEIS fails to calculate properly the aggregate effects of the Applicants' Proposal on vehicular traffic in the Four Cities areas where serious problems involving vehicular delay, public safety and air quality already exist. In particular the DEIS did not consider the cumulative impact on vehicle delay hours the Applicants' Proposal would cause at at-grade crossings with average daily traffic ("ADT") less than 5,000 vehicles per day.

- The data used in the DEIS differs significantly from the data presented by the Applicants' Proposal and Applicants' responses to discovery as well as other available sources. These differences occur in characteristics such as train lengths, train speeds, vehicle departure rates, and ADT by time of day that have major impacts on the estimates of vehicle delays in the area. In turn these changes in delays and exposures have corresponding impacts on other environmental factors such as air quality, lost productive time and safety.

- The DEIS did not evaluate the reduced environmental impact of the FCC Alternative Routing Plan that was developed and submitted to mitigate some of the impact of Applicants' Proposal.

- Using the corrections and additions that are required to provide full measurement of the impacts of the Applicants' Proposal on vehicular traffic in the Four Cities area, revisions to the DEIS are clearly necessary. These revisions are provided as Exhibit__GMA-2, Exhibit__GMA-3 and Exhibit__GMA-4.

I have provided these results and the corrected model used in the DEIS to Mr. Phillip Burris for evaluating the various measures of environmental quality that are impacted by changes in vehicular traffic.

The analyses supporting these conclusions are presented below under the following headings:

III. The Environmental Impact Statement Must Consider the Cumulative Effects of the Applicants' Proposal

IV. Corrections to the Data and Model Used by the DEIS

V. The FCC Alternative Routing Plan Mitigates Adverse Environmental Impacts

VI. Proposed Revisions to the Environmental Impact Statement Analysis as it Pertains to the Four Cities

III. THE ENVIRONMENTAL IMPACT STATEMENT MUST CONSIDER THE CUMULATIVE EFFECTS OF THE APPLICANTS' PROPOSAL

The DEIS does not consider any changes in vehicle delays for at-grade crossings with traffic density less than 5,000 vehicles per day [DEIS, Appendix C page 10]. Table 2 shows that 79 at-grade crossings in the Four Cities with ADT less than 5,000 vehicles per day will be affected by the Applicants' Proposal. The DEIS analysis omits all of these crossings. Furthermore, Table 2 shows that 29 at-grade crossings in the Four Cities with ADT of 5,000 or more vehicles per day will be affected by the Applicants' Proposal. The DEIS provided data on only 15 of these 29 at-grade crossings and failed to consider 14 of the 29 crossings or 48% fewer than required by its own ADT volume threshold. The total number of neglected at-grade crossings was 93, while the number of at-grade crossings analyzed was only 15.

Although use of the 5,000 vehicle per day threshold may be appropriate in some circumstances, in an area like the Four Cities it clearly is not. Due to the large number of crossings that fall below this threshold in this relatively concentrated area, ignoring the vehicle delays at these crossings produces a highly inaccurate and misleading portrayal of the cumulative impacts on the area.

Table 2
Crossings Involved in the Alternatives by ADT

Crossing Type (1)	At-Grade Crossings: Included in DEIS (2)	Current Situation (3)	Applicants' Proposal (4)	FCC Alternative Routing (5)	Total Required[1/] (6)
1. Crossings with ADT < 5,000	0	31	54	47	79
2. Crossings with ADT > 15,000	15	15	19	23	29
3. Total At-Grade Crossings	15	46	73	70	108

Sources: Column (2)-DEIS Table 5-IN-9 (Revised).
Column (3) through (6)--EXCEL file Weekday_ADT.xls in Workpapers.

1/ This column represents the unique number of crossings required to evaluate all of the alternatives of Columns (3), (4) and (5). The figure is less than the sum of Columns (3), (4) and (5) because of crossings that are included in more than one of columns (3), (4) and (5).

The cumulative effect of omitting these numerous at-grade crossings was a significant understatement of the number of vehicle hours of delay per year. In turn, these omissions resulted in an implicit[3/] understatement of the changes in vehicle hours of delay per year.

Table 3 compares the vehicle delay hours for the current operations in the Four Cities area and for the Applicants' Proposal as computed considering only the 15 at-grade crossings in the DEIS versus considering all applicable at-grade crossings. The last line of Table 3 shows that failure to include the cumulative effect of all at-grade crossings understates the change in vehicle delays by 49,920 hours per year or 42 percent. Inclusion of the less-travelled crossings is

3/ Implicit in that the DEIS never explicitly stated the vehicle delay hours for the current and proposed operations.

particularly important in light of the high levels of traffic delay hours that currently exist in the area. Therefore, I have included all at-grade crossings in my analysis.

Table 3

Vehicle Delay Hours Understated by the DEIS

Road Segment (1)	Current Vehicle Hrs. of Delay/day For DEIS Crossings (2)	Current Vehicle Hrs. of Delay/day For All Crossings (3)	Post Acq. Vehicle Hrs. of Delay/day For DEIS Crossings (4)	Post Acq. Vehicle Hrs. of Delay/day For All Crossings (5)
1. Willow Creek, IN to Ivanhoe, IN	0.00	41.49	0.00	43.40
2. Willow Creek, IN to Pine Jct, IN	7.77	23.24	17.91	53.59
3. Pine JCT, IN-Barr Yard, IL (Calumet)	459.90	495.23	758.32	816.58
4. Gary to Illinois State Line	0.00	0.00	0.00	0.00
5. Hobart to Tolleston IN	0.00	0.00	5.50	40.52
6. Tolleston, IN to Clarke Jct. IN	0.00	0.00	8.55	9.71
7. Osborne, IN to Michigan Ave Yard, IN	0.00	0.00	0.00	7.79
8. Tolleston, IN to IHB Turnout	0.00	0.00	0.00	1.74
9. Total Delay Hours per Day	467.66	559.97	790.29	973.33
10. Total Delay Hours Per YEAR	170,698	204,387	288,455	355,266
11. Yearly difference between Current and Post Acquisition Using DEIS at-grade crossings			117,757	
12. Yearly difference between Current and Post Acquisition Using All at-grade crossings				167,677
13. **DEIS Understatement of Impact of Applicants' Proposal (hours per year)**				49,920

Source: EXCEL files Weekday_ADT.xls and Nite_WkEnd_ADT.xls

IV. CORRECTIONS TO THE DATA AND MODEL USED BY THE DEIS

The data used in the DEIS deviate from data from other sources. In the case of train lengths and train speeds, the DEIS data differs from the data provided by the Applicants as well as from data collected in a recent traffic study in the Four Cities. The vehicle departure rate used in the DEIS is significantly different from the actual observations in the affected area because the DEIS apparently ignored truck traffic. Another problem is that the model used in the DEIS assumes that the vehicular traffic and train traffic will be uniformly distributed in time. Local data contradicts this assumption, requiring treating the weekday hours different than the non-weekday hours where the data is available.[4/]

The corrections necessary for the proper estimation of vehicular traffic delay statistics are discussed below under the following topics:

A. Train Lengths;

B. Train Speeds;

C. Vehicle Departure Rate; and

D. Weekday Versus Night and Weekend Average Daily Traffic (ADT)

4/ There was an error in the DEIS formula for calculating average delay per stopped vehicle, but this error was corrected in the Supplemental Errata to the DEIS.

A. TRAIN LENGTHS

The data used in the DEIS for average length of train differs significantly from the data presented by the Applicants. The average train length is a primary determinant in the calculation of vehicle delay times [DEIS Appendix C page 11ff]. Table 4 compares the train lengths for each rail line segment in the Four Cities area as presented in the DEIS with the train lengths provided by the Applicants to the Four Cities in discovery. The train lengths used in the DEIS are significantly different from the train lengths in the Applicants' discovery response. As shown in Table 4, the train lengths provided in the DEIS in Columns (2) and (4) are always larger than the corresponding train lengths provided by the Applicants' in Columns (3) and (5), respectively. In this analysis, the differential between current and proposed train lengths is the critical element - not the train lengths themselves. In the DEIS, the differences between current and proposed train lengths are 200 feet in all but part of one segment, while in the Applicants' data the differences between current and proposed train lengths are as large as 1,297 feet. It should be noted that the values on train lengths for current operations obtained from the traffic sample conducted by the FCC[5] agree with the data in Applicants' response to FCC Interrogatory No. 7.

---

[5] See my previous Verified Statement in FCC-9.

Table 4
Train Lengths
(feet)

	Road Segment	Current		Proposed		Difference Proposed - Current	
		DEIS[1/]	Applicant[2/]	DEIS[1/]	Applicant[2/]	DEIS	Applicant
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Willow Creek, IN to Ivanhoe, IN	None	4,910	None	4,554	N.A.	-356
2.	Willow Creek, IN to Pine Jct, IN	6,000	4,335	6,200	5,141	200	806
3.	Pine Jct, IN-Barr Yard, IL (Calumet)	6,000	4,192	6,200	5,490	200	1,298
4.	Gary, IN to Illinois State Line	None	4,910	None	4,554	N.A.	-356
5.	Hobart to Tolleston, IN	6,000	Not used	6,200	5,306	200	N.A.
6.	Tolleston, IN to Clarke Jct, IN	5,600-6,000	Not used	6,200	5,306	200-600	N.A.

1/ From DEIS Volume 3A, Chapter 5, Table 5-IN-9, Page 1.
2/ Calculated from figures supplied in CSXT's Supplemental Response to FCC Interrogatory 7.

For the above reasons, I have used the train lengths derived from the data supplied by the Applicants for evaluating both pre- and post-acquisition conditions.

B. TRAIN SPEEDS

The DEIS uses values for train speeds that are not attainable in actual operations. For example, Table 5-IN-9 of the DEIS uses 25 miles per hour as the current train speed for the Barr Yard to Pine Junction Segment. The current maximum timetable speed in this segment is 35 miles per hour but the current average train speed in this area is approximately 12.0 miles per hour. This value is developed from three sources of data: 1) data obtained in discovery from the Applicants'[6]; 2) the traffic study conducted for the FCC under my supervision; and, 3) police radar observations.[7] The most reliable of these three sources is the CSX record that shows the average speed on this segment is 12.0 miles per hour. The police radar observations averaged 14.3 mph but these only involve trains that are in motion. Any amount of time that a train is stopped results in a lower average speed on the segment. The CSX record contains average duration to traverse the segment which accounts for any stops. If data were available to adjust the radar observations for stopped trains, the estimate of 14.3 mph would be considerably less.

The projected post-acquisition values for train speeds are similarly overstated. Even with the improvements the Applicants' plan to make that will permit the speed limits to be raised in certain areas, the average actual speeds in the Four Cities are not likely to approach even 50 percent of the speed limit. There are several conditions that will prevent the average speeds from significantly increasing. First, there are several interlockers (rail-to-rail at-grade crossings)

---

[6] Bates No. CSX 12C0 000102 (Confidential).
[7] Provided in my workpapers.

in the area, especially in the Pine Junction to Barr Yard segment.[8] These have slower speed restrictions and may require a full stop. As a result, the high level of rail traffic in the area occasions the need for slow movement of trains to allow trains to cross other rail lines. Second, the acceleration/deceleration times and distances are such that, given the various restrictions, the speed limit cannot even be approximated in most segments. Third, the high density of population and the large volume of vehicular traffic in the FCC area prevent higher speeds for safety reasons.

Data provided by CSX confirms that train operations in congested areas like the Four Cities are far lower than posted speeds. These data show numerous lines where average train speeds are less than one half of the posted speed limit. Table 5 shows the speed limits and actual speeds in mainline segments in or near various metropolitan areas with high population densities. The average actual speed on these metropolitan segments is only 36.6 percent of the speed limit.

On the Pine Junction to Barr yard segment I have used the CSX average actual train speed of 12.0 mph for the correct current train speed because of the three sources of evidence discussed above. Applicants claim that the capital improvements in this segment to handle more trains, longer trains and heavier trains and increase the speed limit to 40 mph will enable the average speed to increase. I do not believe the average speed will increase at all because of the increased number, length and weight of trains in a segment with many interlockers. However, to be conservative, I have assumed a 10% increase in average train speed from 12.0 to 13.2 mph

---

[8] See Exhibit__GMA-1.

for the post acquisition analysis of both the Applicants Proposal and the FCC Alternative Routing Plan.[2/]

The other segment where we have obtained actual average train speeds is Willow Creek to Pine Junction. The data from CSX noted above show the average train speed on this segment to be 24.5 mph. I have used 24.5 mph for both current and post-acquisition train speeds on the Willow Creek to Pine Junction segment.

The Hobart-Tolleston-Clarke Junction segment is currently out of service and the current actual speed data are not available. Because I have no other data, I have used 36.6% of the 40 mph that Applicants state as the maximum speed on this segment. This is consistent with the experience of CSX in other, similarly dense metropolitan areas. It is also consistent with the planned use of this line to handle bulk trains so that higher priority traffic can be expressed on CSX's lakefront line. These lower priority bulk trains will yield the right-of-way to other traffic at several rail-to-rail at-grade crossings on this segment.

In all other areas, I have used 50% of the maximum speed limit for average train speed in all calculations for current and proposed operating segments. Mr. Phillip Burris also discusses the rational for the train speed used in his evaluation.

[2/] Because the Applicant relies on certain improvements to the Pine Junction to Barr Yard segment as the justification for an increased train speed, the Four Cities included this investment as a cost of the FCC Alternative Routing Plan as explained by Mr. Burris.

Table 5

Segments for Which the Actual Average Train Speed is Less Than Half the Maximum Authorized Speed for the Segment Shown in the CSX Timetable

	Segment					Run	Speed (MPH)		
	Origin City	St	Dest City	St	Miles	Time	Actual	Limit	% Diff
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Cincinnati	OH	Anchorage	KY	93	6.90	13.48	50	27.0%
2.	Cincinnati	OH	Columbus	OH	112	9.87	11.35	40	28.4%
3.	Blue Island Jct	IL	75th St	IL	8	0.67	11.94	40	29.9%
4.	Salem	IL	E St Louis	IL	68	3.70	18.38	60	30.6%
5.	Detroit	MI	Plymouth	MI	25	1.75	14.29	45	31.8%
6.	Athens	GA	Atlanta	GA	69	3.47	19.88	60	33.1%
7.	Holly	MI	Wixom	MI	20	1.20	16.67	50	33.3%
8.	Pine Jct	IN	Barr Yard	IL	11	0.92	11.96	35	34.2%
9.	Barr Yard	IL	Blue Island Jct	IL	3	0.25	12.00	35	34.3%
10.	Romulus	MI	Toledo	MI	49	2.93	16.72	45	37.2%
11.	Plymouth	MI	Wayne	MI	8	0.47	17.02	45	37.8%
12.	Wayne	MI	Romulus	MI	4	0.23	17.39	45	38.6%
13.	Cincinnati	OH	Covington	KY	6	0.50	12.00	30	40.0%
14.	Newark	OH	Columbus	OH	35	2.12	16.51	40	41.3%
15.	Cincinnati	OH	Mitchell	IN	128	6.05	21.16	50	42.3%
16.	Plymouth	MI	Grand Rapids	MI	124	5.53	22.42	50	44.8%
17.	Deschler	OH	Toledo	OH	36	1.55	23.23	50	46.5%
18.	Hamilton	OH	Indianapolis	IN	99	6.85	14.45	30	48.2%
19.								**Average**	**36.6%**

COLUMN	SOURCE
(1)-(6)	Confidential CSX Train Statistics Summary Spreadsheet, Bates No. CSX 12 CO 000102.
(7)	Col. (5)/Col. (6).
(8)	CSX Timetable "Maximum Authorized Speed" (lowest "max" applicable on any part of segment.)
(9)	[Col. (7)/(Col. (8)]*100.

C. VEHICLE DEPARTURE RATE

The Supplemental Errata to the DEIS (at 2) gave the vehicle departure rate[10] for vehicles leaving the queue after the train has passed as 1400 vehicles per hour per lane (or 23.3 vehicles per minute per lane). The source for this was given as "field measurements". This value

[10] The vehicle departure rate is represented as Sc in the Appendix C of the DEIS.

appears to be the unimpeded flow for cars (only) leaving a queue at a stop light. The actual departure rates from a queue across railroad tracks on the Pine Junction to Barr Yard segment were much slower because of trucks and traffic congestion. Measurements of queue clearing times and cars in queue reported in my Verified Statement in FCC-9 showed an average vehicle departure rate of 10.18 vehicles per minute per lane for 7 at-grade crossings[11/] on the Pine Junction to Barr Yard segment.

This estimate of vehicle departure rate reflects the mix of cars and trucks and the congestion that actually exists in this area. Therefore, I have used 10.18 vehicles per minute per lane (610.8 vehicles per hour per lane) for the value of the vehicle departure rates at all at-grade crossings on the Pine Junction to Barr Yard rail segment. Because I did not have sufficient information to make an independent estimate for the other rail segments, I relied on the 1400 vehicles per hour per lane in the DEIS for all other segments.

D. WEEKDAY VERSUS NIGHT-WEEKEND AVERAGE DAILY TRAFFIC (ADT)

The model used in the DEIS assumes uniform traffic arrivals to the at-grade crossings throughout the period under study. In the study of Pine Junction to Barr Yard at-grade crossings we found that 60% of the vehicles were observed during the weekdays which account for 36%[12/] of the hours in a week. Meanwhile 32% of the trains passed during the weekday hours. The

---

[11/] The observations for Columbia Ave. were omitted in the above calculation because of construction in the area.

[12/] The weekdays are 6 am to 6 pm, Monday through Friday and account for 60 hours out of the 168 hours in a week (60/168 = 36%).

net result of the concentration of 60% of the vehicular traffic in 36% of the time is a significant increase in delay times for vehicles that travel during the weekday hours.

I used this information and increased the effective ADT for 60 hours per week to reflect the concentration of vehicles and ran 32% of the trains during the 60 weekday hours.[13/] For nights and weekends, I decreased the effective ADT for 108 hours per week to reflect the sparsity of vehicular traffic and ran the remaining 68% of the trains during the 108 night and weekend hours.[14/] The two results were added together.

The adjustment was used only for the at-grade crossings on the Pine Junction to Barr Yard segment. The data was not available to make such adjustments for the other segments; therefore, I used the uniform assumption of the DEIS.

After making all of the input adjustments describe above, I used the DEIS formula (as corrected by the SEA Supplemental Errata) to calculate revised vehicle delay times as presented in this verified statement.

13/ The actual adjustment made to the ADT for weekdays was to multiply the ADT by 60% and then divide by 36% of the week. Thus, the effective rate of an ADT with 10,000 vehicles per day is 16,667 vehicles per day during the 60 weekday hours.

14/ The actual adjustment made to the ADT for nights and weekends was to multiply the ADT by 40% and divide by the 64% of the week. Thus, the effective rate of an ADT with 10,000 vehicles per day is 6250 vehicles per day during the 106 night and weekend hours.

V. THE FCC ALTERNATIVE ROUTING PLAN MITIGATES ADVERSE ENVIRONMENTAL IMPACTS

The FCC has presented an alternative proposal for routing the subject traffic in the Four Cities area. This proposal is designed to mitigate several of the adverse environmental impacts of the proposed Conrail transaction including accident and injury rates, vehicle traffic delays and the associated increases in fuel consumption and air pollution.

The draft EIS states:

> SEA recognizes the concerns of the Four City Consortium regarding the pre-existing conditions and acknowledges that even a small increase in delays could exacerbate the problems faced by an urban area with several at-grade crossings. It is SEA's preliminary recommendation that CSX and NS shall consult with representatives of the Four City Consortium, the Indiana Department of Transportation, and other appropriate parties to address potential traffic delay and safety concerns at the nine highway/rail at-grade crossings in these communities. Specifically, CSX and NS would meet with these parties to negotiate a mutually-acceptable binding agreement on the implementation and funding allocation for measures to address traffic delay and safety concerns at these crossings. [DEIS at IN-85]

The Four Cities and the Applicants are engaged in discussions with the Applicants as recommended by the DEIS. In the event that these discussions do not resolve the Four Cities' concerns, however, it will be necessary to evaluate the FCC Alternative Routing Plan and its ability to mitigate some of the serious environmental impacts of the Applicants' proposal. Therefore, the next section presents my proposed changes and additions to the final environmental impact statement to include the evaluation of the FCC Alternative Routing Plan.

VI. PROPOSED REVISIONS TO THE ENVIRONMENTAL IMPACT STATEMENT ANALYSIS RELATING TO THE FOUR CITIES

Based on the discussion and data presented above and in my attached exhibits, I propose the following revisions be included in the final environmental impact statement:

A. Revise Table 5-IN-9 as shown in my Exhibit__GMA-2:

1. To include the FCC Alternative Routing;

2. To include all at-grade crossings where the impact of the Applicants' Proposal will be different than the FCC Alternative Routing;

3. To include the data corrections in train speeds and train lengths; and,

4. To include the corrected formula for average vehicle delay.

B. Revise Table 5-IN-45 as shown in my Exhibit__GMA-3:

1. To include the FCC Alternative Routing;

2. To include all at-grade crossings where the impact of the Applicants' Proposal will be different than the FCC Alternative Routing;

3. To include the data corrections in train speeds and train lengths; and,

4. To include the corrected formula for average vehicle delay.

C. Include a Table 5-IN-Supplemental as shown in my Exhibit__GMA-4 that summarizes and compares the environmental impacts on vehiclular traffic resulting from the Applicants' Proposal and the FCC Alternative Routing Plan.

VERIFICATION

COMMONWEALTH OF VIRGINIA)
)
CITY OF ALEXANDRIA)

GARY M. ANDREW, being duly sworn, deposes and says that he has read the foregoing statement, knows the contents thereof and that the same are true as stated.

Gary M. Andrew

Sworn to and subscribed
before me this 2nd day
of February, 1998.

Witness my hand and official seal.

Joyce M. Shelton
12/31/98

Interlockers Between Pine Junction and Barr Yard

Crossing	(a) Priority	(b) Dispatching	(c) Signal
1. Clark Jct. (CR/NS)	Conrail	First come, First serve	Color signal device
2. Calumet Tower (EJE/IHB)	IHB	IHB	Interlocking signals controlled by IHB operator
3. Republic (IHB)	First come, First serve	First come, First serve	Automated absolute signal
4. Columbia Ave. (CSSSB)	First come, First serve	First come, First serve	Interlocking signals controlled by IHB operator
5. State Line (IHB/NS)	IHB	IHB	Interlocking signals controlled by IHB operator
6. Calumet Park (CR/IHB)	IHB	IHB	Interlocking signals controlled by IHB operator
Source: CSX Response to Interrogatory No. 10 (January 23, 1998)			

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Pre Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WILLOW CREEK, IN TO IVANHOE, IN										
SWANSON	2	750	9.6	20	4909.99	16	2	3.33	8.75	B
DOMBY RD	2	3,000	9.6	20	4909.99	66	10	3.44	9.06	B
UNION ST	2	250	9.6	20	4909.99	5	1	3.30	8.69	B
RIPLEY ST	2	14,370	9.6	20	4909.99	315	47	4.18	11.01	B
PIKE ST	2	750	9.6	20	4909.99	16	2	3.33	8.75	B
GRAND BLVD	2	300	9.6	20	4909.99	7	1	3.30	8.69	B
GIBSON	2	750	9.6	20	4909.99	16	2	3.33	8.75	B
DE KALB	2	750	9.6	20	4909.99	16	2	3.33	8.75	B
MLK/INDIANA AVE	4	3,000	9.6	20	4909.99	66	5	3.36	8.85	B
VIRGINIA ST	2	750	9.6	20	4909.99	16	2	3.33	8.75	B
MASSACHUSETS	3	3,000	9.6	20	4909.99	66	7	3.39	8.92	B
BROADWAY ST	4	13,690	9.6	20	4909.99	300	23	3.66	9.64	B
MADISON	2	1,276	9.6	20	4909.99	28	4	3.35	8.82	B
HARRISON ST	2	750	9.6	20	4909.99	16	2	3.33	8.75	B
GRANT ST	2	3,000	9.6	20	4909.99	66	10	3.44	9.06	B
ROOSEVELT ST	2	250	9.6	20	4909.99	5	1	3.30	8.69	B
TAFT ST	2	3,000	9.6	20	4909.99	66	10	3.44	9.06	B
CHASE ST	2	3,050	9.6	20	4909.99	67	10	3.45	9.07	B
CLARK RD	2	7,500	9.6	20	4909.99	164	25	3.70	9.74	B
BURR ST	2	750	9.6	20	4909.99	16	2	3.33	8.75	B
COLFAX AVE	2	850	9.6	20	4909.99	19	3	3.33	8.77	B

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Post Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WILLOW CREEK, IN TO IVANHOE, IN										
SWANSON	2	750	11.4	20	4554	18	2	3.12	9.15	B
DOMBY RD	2	3,000	11.4	20	4554	73	9	3.23	9.48	B
UNION ST	2	250	11.4	20	4554	6	1	3.10	9.09	B
RIPLEY ST	2	14,370	11.4	20	4554	351	44	3.93	11.51	B
PIKE ST	2	750	11.4	20	4554	18	2	3.12	9.15	B
GRAND BLVD	2	300	11.4	20	4554	7	1	3.10	9.09	B
GIBSON	2	750	11.4	20	4554	18	2	3.12	9.15	B
DE KALB	2	750	11.4	20	4554	18	2	3.12	9.15	B
MLK/INDIANA AVE	4	3,000	11.4	20	4554	73	5	3.16	9.26	B
VIRGINIA ST	2	750	11.4	20	4554	18	2	3.12	9.15	B
MASSACHUSETS	3	3,000	11.4	20	4554	73	6	3.18	9.33	B
BROADWAY ST	4	13,690	11.4	20	4554	335	21	3.44	10.08	B
MADISON	2	1,276	11.4	20	4554	31	4	3.15	9.23	B
HARRISON ST	2	750	11.4	20	4554	18	2	3.12	9.15	B
GRANT ST	2	3,000	11.4	20	4554	73	9	3.23	9.48	B
ROOSEVELT ST	2	250	11.4	20	4554	6	1	3.10	9.09	B
TAFT ST	2	3,000	11.4	20	4554	73	9	3.23	9.48	B
CHASE ST	2	3,050	11.4	20	4554	75	9	3.23	9.48	B
CLARK RD	2	7,500	11.4	20	4554	183	23	3.48	10.19	B
BURR ST	2	750	11.4	20	4554	18	2	3.12	9.15	B
COLFAX AVE	2	850	11.4	20	4554	21	3	3.13	9.17	B

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*FCC Alternative Solution*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WILLOW CREEK, IN TO IVANHOE, IN										
SWANSON	2	750	28.1	20	5110.27	50	3	3.44	27.42	D
DOMBY RD	2	3,000	28.1	20	5110.27	199	10	3.56	28.38	D
UNION ST	2	250	28.1	20	5110.27	17	1	3.42	27.22	D
RIPLEY ST	2	14,370	28.1	20	5110.27	954	49	4.33	34.49	D
PIKE ST	2	750	28.1	20	5110.27	50	3	3.44	27.42	D
GRAND BLVD	2	300	28.1	20	5110.27	20	1	3.42	27.24	D
GIBSON	2	750	28.1	20	5110.27	50	3	3.44	27.42	D
DE KALB	2	750	28.1	20	5110.27	50	3	3.44	27.42	D
MLK/INDIANA AVE	4	3,000	28.1	20	5110.27	199	5	3.48	27.73	D
VIRGINIA ST	2	750	28.1	20	5110.27	50	3	3.44	27.42	D
MASSACHUSETS	3	3,000	0	0	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
BROADWAY ST	4	13,690	0	0	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
MADISON	2	1,276	0	0	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
HARRISON ST	2	750	0	0	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
GRANT ST	2	3,000	0	0	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
ROOSEVELT ST	2	250	0	0	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
TAFT ST	2	3,000	0	0	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
CHASE ST	2	3,050	0	0	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
CLARK RD	2	7,500	0	20	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
BURR ST	2	750	0	20	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used
COLFAX AVE	2	850	0	20	5110.27	Not Used	Not Used	Not Used	Not Used	Not Used

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Pre Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WILLOW CREEK, IN TO PINE JCT, IN										
WILLOW CREEK RD	2	6,477	22.1	24.5	4335.13	250	16	2.78	12.84	B
COUNTYLINE RD	2	7,500	22.1	24.5	4335.13	289	19	2.83	13.06	B
HOBART RD	2	3,000	22.1	24.5	4335.13	116	8	2.63	12.15	B
HOWARD ST	2	750	22.1	24.5	4335.13	29	2	2.54	11.74	B
LAKE STREET	4	1,184	22.1	24.5	4335.13	46	1	2.53	11.71	B
CLARK RD	2	7,250	22.1	24.5	4335.13	279	18	2.81	13.01	B
PINE JCT, IN - BARR YARD, IL(CALUMET)										
STATE ROUTE 12	4	14,820	27.6	12	4192.88	1270	33	5.98	61.49	F
CLINE AVE	2	2,000	27.6	12	4192.88	171	9	4.80	49.31	E
CLINE AVE	2	500	27.6	12	4192.88	43	2	4.55	46.75	E
EUCLID AVE	4	7,500	27.6	12	4192.88	643	17	5.13	52.69	E
KENNEDY	4	7,325	27.6	12	4192.88	628	16	5.11	52.51	E
RAILROAD AVE	4	7,500	27.6	12	4192.88	643	17	5.13	52.69	E
TOD AVE	2	2,000	27.6	12	4192.88	171	9	4.80	49.31	E
INDPLS & SR20	4	13,650	27.6	12	4192.88	1170	31	5.83	59.89	E
BARING AVE	2	2,000	27.6	12	4192.88	171	9	4.80	49.31	E
MAGOUN AVE	2	2,000	27.6	12	4192.88	171	9	4.80	49.31	E
COLUMBIA AVE	4	15,000	27.6	12	4192.88	1285	34	6.01	61.74	F
ASH ST	2	500	27.6	12	4192.88	43	2	4.55	46.75	E
CALUMET AVE	4	17,600	27.6	12	4192.88	1508	39	6.39	65.66	F
TORRENCE AVE	2	825	27.6	12	4192.88	71	4	4.60	47.28	E
HENRY AVE	2	250	27.6	12	4192.88	21	1	4.51	46.34	E
JOHNSON AVE	2	250	27.6	12	4192.88	21	1	4.51	46.34	E
SHEFFIELD	2	8,030	27.6	12	4192.88	688	36	6.16	63.28	F
HOHMAN AVE	3	10,500	27.6	12	4192.88	900	31	5.87	60.36	F
WABASH	2	250	27.6	12	4192.88	21	1	4.51	46.34	E

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Post Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WILLOW CREEK, IN TO PINE JCT, IN										
WILLOW CREEK RD	2	6,477	38.6	24.5	5141.36	501	19	3.19	29.61	D
COUNTYLINE RD	2	7,500	38.6	24.5	5141.36	580	22	3.25	30.12	D
HOBART RD	2	3,000	38.6	24.5	5141.36	232	9	3.02	28.01	D
HOWARD ST	2	750	38.6	24.5	5141.36	58	2	2.92	27.06	D
LAKE STREET	4	1,184	38.6	24.5	5141.36	92	2	2.91	26.99	D
CLARK RD	2	7,250	38.6	24.5	5141.36	561	21	3.23	29.99	D
PINE JCT, IN - BARR YARD, IL(CALUMET)										
STATE ROUTE 12	4	14,820	33.3	13.2	5490	1791	39	6.99	101.39	F
CLINE AVE	2	2,000	33.3	13.2	5490	242	10	5.61	81.31	F
CLINE AVE	2	500	33.3	13.2	5490	60	3	5.32	77.08	F
EUCLID AVE	4	7,500	33.3	13.2	5490	906	20	5.99	86.88	F
KENNEDY	4	7,325	33.3	13.2	5490	885	19	5.97	86.58	F
RAILROAD AVE	4	7,500	33.3	13.2	5490	906	20	5.99	86.88	F
TOD AVE	2	2,000	33.3	13.2	5490	242	10	5.61	81.31	F
INDPLS & SR20	4	13,650	33.3	13.2	5490	1650	36	6.81	98.75	F
BARING AVE	2	2,000	33.3	13.2	5490	242	10	5.61	81.31	F
MAGOUN AVE	2	2,000	33.3	13.2	5490	242	10	5.61	81.31	F
COLUMBIA AVE	4	15,000	33.3	13.2	5490	1813	39	7.02	101.81	F
ASH ST	2	500	33.3	13.2	5490	60	3	5.32	77.08	F
CALUMET AVE	4	17,600	33.3	13.2	5490	2127	46	7.47	108.26	F
TORRENCE AVE	2	825	33.3	13.2	5490	100	4	5.39	77.96	F
HENRY AVE	2	250	33.3	13.2	5490	30	1	5.27	76.42	F
JOHNSON AVE	2	250	33.3	13.2	5490	30	1	5.27	76.42	F
SHEFFIELD	2	8,030	33.3	13.2	5490	970	42	7.20	104.34	F
HOHMAN AVE	3	10,500	33.3	13.2	5490	1269	37	6.87	99.53	F
WABASH	2	250	33.3	13.2	5490	30	1	5.27	76.42	F

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*FCC Alternative Solution*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WILLOW CREEK, IN TO PINE JCT, IN										
WILLOW CREEK RD	2	6,477	21.9	24.5	5141.36	284	19	3.19	16.80	C
COUNTYLINE RD	2	7,500	21.9	24.5	5141.36	329	22	3.25	17.09	C
HOBART RD	2	3,000	21.9	24.5	5141.36	132	9	3.02	15.89	C
HOWARD ST	2	750	21.9	24.5	5141.36	33	2	2.92	15.35	C
LAKE STREET	4	1,184	21.9	24.5	5141.36	52	2	2.91	15.32	C
CLARK RD	2	7,250	21.9	24.5	5141.36	318	21	3.23	17.02	C
PINE JCT, IN - BARR YARD, IL(CALUMET)										
STATE ROUTE 12	4	14,820	16.7	13.2	5490	898	39	6.99	50.85	E
CLINE AVE	2	2,000	16.7	13.2	5490	121	10	5.61	40.78	E
CLINE AVE	2	500	16.7	13.2	5490	30	3	5.32	38.66	D
EUCLID AVE	4	7,500	16.7	13.2	5490	455	20	5.99	43.57	E
KENNEDY	4	7,325	16.7	13.2	5490	444	19	5.97	43.42	E
RAILROAD AVE	4	7,500	16.7	13.2	5490	455	20	5.99	43.57	E
TOD AVE	2	2,000	16.7	13.2	5490	121	10	5.61	40.78	E
INDPLS & SR20	4	13,650	16.7	13.2	5490	827	36	6.81	49.53	E
BARING AVE	2	2,000	16.7	13.2	5490	121	10	5.61	40.78	E
MAGOUN AVE	2	2,000	16.7	13.2	5490	121	10	5.61	40.78	E
COLUMBIA AVE	4	15,000	16.7	13.2	5490	909	39	7.02	51.06	E
ASH ST	2	500	16.7	13.2	5490	30	3	5.32	38.66	D
CALUMET AVE	4	17,600	16.7	13.2	5490	1067	46	7.47	54.29	E
TORRENCE AVE	2	825	16.7	13.2	5490	50	4	5.38	39.10	D
HENRY AVE	2	250	16.7	13.2	5490	15	1	5.27	38.32	D
JOHNSON AVE	2	250	16.7	13.2	5490	15	1	5.27	38.32	D
SHEFFIELD	2	8,030	16.7	13.2	5490	487	42	7.20	52.33	E
HOHMAN AVE	3	10,500	16.7	13.2	5490	636	37	6.87	49.91	E
WABASH	2	250	16.7	13.2	5490	15	1	5.27	38.32	D

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Pre Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WARSAW (WHEELER) TO TOLLESTON, IN										
PARK AVE	2	588	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
JONES RD/625W	2	1,304	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
600N	2	1,896	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
COUNTY LINE RD	2	100	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
ILLINOIS AVE	2	7,880	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
LINDA ST	2	250	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CLEVELAND ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
LAKE PARK	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
WISCONSIN ST	4	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
LIVERPOOL RD	2	850	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
MARTIN LUTHER KING/I	4	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
VIRGINIA ST	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
21ST ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
BROADWAY	4	17,390	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
WASHINGTON	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
19TH ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
JACKSON ST	2	250	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
17TH ST	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
HARRISON	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
15TH ST	2	3,300	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
13TH ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
11TH AVE	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
GRANT	2	3,600	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
10TH AVE	2	250		0	0	Not Used	Not Used	Not Used	Not Used	Not Used

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	Post Acquisition							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WARSAW (WHEELER) TO TOLLESTON, IN										
PARK AVE	2	588	5	14.648	5306	9	3	4.66	8.95	B
JONES RD/625W	2	1,304	5	14.648	5306	21	6	4.71	9.05	B
600N	2	1,896	5	14.648	5306	30	9	4.75	9.13	B
COUNTY LINE RD	2	100	5	14.648	5306	2	0	4.62	8.89	B
ILLINOIS AVE	2	7,880	5	14.648	5306	126	36	5.23	10.05	B
LINDA ST	2	250	5	14.648	5306	4	1	4.63	8.91	B
CLEVELAND ST	2	3,000	5	14.648	5306	48	14	4.83	9.29	B
LAKE PARK	2	750	5	14.648	5306	12	3	4.67	8.98	B
WISCONSIN ST	4	750	5	14.648	5306	12	2	4.64	8.93	B
LIVERPOOL RD	2	850	5	14.648	5306	14	4	4.68	8.99	B
MARTIN LUTHER KING/I	4	750	5	14.648	5306	12	2	4.64	8.93	B
VIRGINIA ST	2	750	5	14.648	5306	12	3	4.67	8.98	B
21ST ST	2	3,000	5	14.648	5306	48	14	4.83	9.29	B
BROADWAY	4	17,890	5	14.648	5306	287	41	5.33	10.24	B
WASHINGTON	2	3,000	5	14.648	5306	48	14	4.83	9.29	B
19TH ST	2	3,000	5	14.648	5306	48	14	4.83	9.29	B
JACKSON ST	2	250	5	14.648	5306	4	1	4.63	8.91	B
17TH ST	2	750	5	14.648	5306	12	3	4.67	8.98	B
HARRISON	2	750	5	14.648	5306	12	3	4.67	8.98	B
15TH ST	2	3,300	5	14.648	5306	53	15	4.85	9.33	B
13TH ST	2	3,000	5	14.648	5306	48	14	4.83	9.29	B
11TH AVE	2	3,000	5	14.648	5306	48	14	4.83	9.29	B
GRANT	2	3,600	5	14.648	5306	58	17	4.88	9.38	B
10TH AVE	2	250	5	14.648	5306	4	1	4.63	8.91	B

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	FCC Alternative Solution							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
WARSAW (WHEELER) TO TOLLESTON, IN										
PARK AVE	2	588	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
JONES RD/625W	2	1,304	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
600N	2	1,896	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
COUNTY LINE RD	2	100	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
ILLINOIS AVE	2	7,880	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
LINDA ST	2	250	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CLEVELAND ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
LAKE PARK	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
WISCONSIN ST	4	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
LIVERPOOL RD	2	850	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
MARTIN LUTHER KING/I	4	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
VIRGINIA ST	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
21ST ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
BROADWAY	4	17,890	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
WASHINGTON	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
19TH ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
JACKSON ST	2	250	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
17TH ST	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
HARRISON	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
15TH ST	2	3,300	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
13TH ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
11TH AVE	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
GRANT	2	3,600	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
10TH AVE	2	250	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Pre Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
HOBART, IN TO PINE JCT, IN										
INDIANA ST	2	500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
CENTER ST	2	500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
MAIN ST	2	7,880	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
LAKE PARK	1	500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
ASH ST	2	250	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
WISCONSIN ST	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
THIRD ST	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
COLORADO AVE	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
LIVERPOOL RD	2	2,300	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
KENTUCKY RD	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
GEORGIA ST	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
DELAWARE ST	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
41ST AVE	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
BROADWAY	4	27,192	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
WASHINGTON	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
ADAMS	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
MADISON	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
MONROE	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
JACKSON	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
HARRISON	2	5,420	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
PIERCE	2	250	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
GRANT ST	2	22,100	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
RIDGE ROAD	4	12,250	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
CHASE	4	7,500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
CLARK RD	2	7,500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
CALHOUN ST	2	100	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
COLFAX	2	11,372	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
BLACK OAK	2	100	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
25TH AVE	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
15TH AVE	4	3500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
9TH AVE	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
5TH AVE	4	16420	0	0		Not Used	Not Used	Not Used	Not Used	Not Used

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Post Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
HOBART, IN TO PINE JCT, IN										
INDIANA ST	2	500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
CENTER ST	2	500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
MAIN ST	2	7,880	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
LAKE PARK	1	500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
ASH ST	2	250	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
WISCONSIN ST	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
THIRD ST	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
COLORADO AVE	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
LIVERPOOL RD	2	2,300	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
KENTUCKY RD	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
GEORGIA ST	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
DELAWARE ST	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
41ST AVE	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
BROADWAY	4	27,192	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
WASHINGTON	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
ADAMS	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
MADISON	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
MONROE	2	3,000	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
JACKSON	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
HARRISON	2	5,420	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
PIERCE	2	250	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
GRANT ST	2	22,100	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
RIDGE ROAD	4	12,250	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
CHASE	4	7,500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
CLARK RD	2	7,500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
CALHOUN ST	2	100	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
COLFAX	2	11,372	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
BLACK OAK	2	100	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
25TH AVE	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
15TH AVE	4	3500	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
9TH AVE	2	750	0	0		Not Used	Not Used	Not Used	Not Used	Not Used
5TH AVE	4	16420	0	0		Not Used	Not Used	Not Used	Not Used	Not Used

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	FCC Alternative Solution							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
HOBART, IN TO PINE JCT, IN										
INDIANA ST	2	500	5	25	5306	5	1	2.93	3.56	A
CENTER ST	2	500	5	25	5306	5	1	2.93	3.56	A
MAIN ST	2	7,880	5	25	5306	80	23	3.30	4.00	A
LAKE PARK	1	500	5	25	5306	5	3	2.96	3.58	A
ASH ST	2	250	5	25	5306	3	1	2.92	3.54	A
WISCONSIN ST	2	3,000	5	25	5306	30	9	3.05	3.70	A
THIRD ST	2	3,000	5	25	5306	30	9	3.05	3.70	A
COLORADO AVE	2	750	5	25	5306	8	2	2.94	3.57	A
LIVERPOOL RD	2	2,300	5	25	5306	23	7	3.02	3.66	A
KENTUCKY RD	2	750	5	15	5306	12	3	4.57	8.60	B
GEORGIA ST	2	3,000	5	15	5306	47	14	4.73	8.91	B
DELAWARE ST	2	3,000	5	15	5306	47	14	4.73	8.91	B
41ST AVE	2	750	5	15	5306	12	3	4.57	8.60	B
BROADWAY	4	27,192	5	25	5306	275	40	3.65	4.43	A
WASHINGTON	2	3,000	5	15	5306	47	14	4.73	8.91	B
ADAMS	2	750	5	15	5306	12	3	4.57	8.60	B
MADISON	2	750	5	15	5306	12	3	4.57	8.60	B
MONROE	2	3,000	5	15	5306	47	14	4.73	8.91	B
JACKSON	2	750	5	15	5306	12	3	4.57	8.60	B
HARRISON	2	5,420	5	25	5306	55	16	3.17	3.84	A
PIERCE	2	250	5	15	5306	4	1	4.54	8.54	B
GRANT ST	2	22,100	5	25	5306	223	64	4.34	5.26	B
RIDGE ROAD	4	12,250	5	15	5306	192	28	4.97	9.36	B
CHASE	4	7,500	5	15	5306	118	17	4.79	9.01	B
CLARK RD	2	7,500	5	15	5306	118	34	5.09	9.58	B
CALHOUN ST	2	100	5	15	5306	2	0	4.53	8.52	B
COLFAX	2	11,372	5	25	5306	115	33	3.50	4.25	A
BLACK OAK	2	100	5	15	5306	2	0	4.53	8.52	B
25TH AVE	2	750	5	22.5	5306	8	2	3.22	4.26	A
15TH AVE	4	3500	5	22.5	5306	39	6	3.26	4.32	A
9TH AVE	2	750	5	22.5	5306	8	2	3.22	4.26	A
5TH AVE	4	16420	5	22.5	5306	181	26	3.62	4.80	A

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Pre Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
TOLLESTON, IN TO CLARKE JCT, IN										
TAFT ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
5TH AVE	4	13,220	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CLARKE RD	2	7,500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
GARY TO ILLINOIS STATE LINE										
CLARK RD	2	7,500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
BURR ST	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
COLFAX	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
VAN LON, IN to OSBORNE, IN										
EULER ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
GRANDE AVE	2	500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
173rd ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
PARRISH ST	2	500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
ARIZONA AVE	2	200	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
169TH ST	4	12,650	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
KENNEDY AVE	4	25,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
OSBORNE,IN to MICHIGAN AVE. YARD, IN										
165th ST	4	10,250	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
KENNEDY & 151st ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
149th ST	3	1,200	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
148th ST	2	800	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CHICAGO AVE	4	16,320	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
TOLLESTON, IN TO IHB CONNECTION										
ROOSEVELT ST	2	250	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
TAFT ST	2	300	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CHASE ST	2	3,050	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CLARK ST	2	7,500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
BURR ST	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
COLFAX AVE	2	850	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*Post Acquisition*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
TOLLESTON, IN TO CLARKE JCT, IN										
TAFT ST	2	3,000	5	14.648	5306	48	14	4.83	9.29	B
5TH AVE	4	13,220	5	14.648	5306	212	31	5.12	9.84	B
CLARKE RD	2	7,500	5	14.648	5306	120	35	5.20	9.99	B
GARY TO ILLINOIS STATE LINE										
CLARK RD	2	7,500	0	20	4554	Not Used	Not Used	Not Used	Not Used	Not Used
BURR ST	2	750	0	20	4554	Not Used	Not Used	Not Used	Not Used	Not Used
COLFAX	2	750	0	20	4554	Not Used	Not Used	Not Used	Not Used	Not Used
VAN LON, IN to OSBORNE, IN										
EULER ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
GRANDE AVE	2	500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
173rd ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
PARRISH ST	2	500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
ARIZONA AVE	2	200	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
169TH ST	4	12,650	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
KENNEDY AVE.	4	25,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
OSBORNE,IN to MICHIGAN AVE. YARD, IN										
165th ST	4	10,250	0	12.5	5306	Not Used	Not Used	Not Used	Not Used	Not Used
KENNEDY & 151st ST	2	3,000	2	12.5	5306	22	16	5.57	4.94	A
149th ST	3	1,200	2	12.5	5306	9	4	5.39	4.78	A
148th ST	2	800	2	12.5	5306	6	4	5.39	4.78	A
CHICAGO AVE	4	16,320	2	12.5	5306	121	43	6.06	5.37	B
TOLLESTON, IN TO IHB CONNECTION										
ROOSEVELT ST	2	250	2	20	4554	1	1	3.10	1.59	A
TAFT ST	2	300	2	20	4554	1	1	3.10	1.60	A
CHASE ST	2	3,050	2	20	4554	13	9	3.23	1.66	A
CLARK ST	2	7,500	2	20	4554	32	23	3.48	1.79	A
BURR ST	2	750	2	20	4554	3	2	3.12	1.61	A
COLFAX AVE	2	850	2	20	4554	4	3	3.13	1.61	A

Table 5-IN-9 (FCC)
Indiana
Highway/Rail At-Grade Crossing Vehicle Delay and Queues

Roadway Name	Number of Roadway Lanes	ADT	*FCC Alternative Solution*							
			Trains per day	Realized Train Speed (mph)	Train Length (feet)	No. of veh. Delayed per day	Max. No. of Veh. in Queue per lane	Crossing Delay per stopped veh (min/veh)	Avg. Delay per Vehicle (All vehicles) (sec/vec)	Level of Service
TOLLESTON, IN TO CLARKE JCT, IN										
TAFT ST	2	3,000	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
5TH AVE	4	13,220	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CLARKE RD	2	7,500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
GARY TO ILLINOIS STATE LINE										
CLARK RD	2	7,500	28.1	20	5110.27	498	26	3.83	30.52	D
BURR ST	2	750	28.1	20	5110.27	50	3	3.44	27.42	D
COLFAX	2	750	28.1	20	5110.27	50	3	3.44	27.42	D
VAN LON, IN to OSBORNE, IN										
EULER ST	2	3,000	2	25	5306	12	9	3.05	1.48	A
GRANDE AVE	2	500	2	25	5306	2	1	2.93	1.42	A
173rd ST	2	3,000	2	25	5306	12	9	3.05	1.48	A
PARRISH ST	2	500	2	25	5306	2	1	2.93	1.42	A
ARIZONA AVE	2	200	2	25	5306	1	1	2.92	1.42	A
169TH ST	4	12,650	2	25	5306	51	18	3.21	1.56	A
KENNEDY AVE	4	25,000	2	22.5	5306	110	40	3.91	2.07	A
OSBORNE,IN to MICHIGAN AVE. YARD, IN										
165th ST	4	10,250	2	12.5	5306	76	27	5.76	5.11	B
KENNEDY & 151st ST	2	3,000	2	12.5	5306	22	16	5.57	4.94	A
149th ST	3	1,200	2	12.5	5306	9	4	5.39	4.78	A
148th ST	2	800	2	12.5	5306	6	4	5.39	4.78	A
CHICAGO AVE	4	16,320	2	12.5	5306	121	43	6.06	5.37	B
TOLLESTON, IN TO IHB CONNECTION										
ROOSEVELT ST	2	250	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
TAFT ST	2	300	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CHASE ST	2	3,050	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
CLARK ST	2	7,500	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
BURR ST	2	750	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used
COLFAX AVE	2	850	0	0	0	Not Used	Not Used	Not Used	Not Used	Not Used

Table 5-IN-45 (FCC)
Estimated Maximum Delay (in Minutes) for Highway/Rail At-Grade Crossings in the Four City Area

Roadway Name	ADT	Crossing Delay Per Stopped Vehicle					Total Blocked Time Per Day (in minutes)				
		Pre-Acquisition	Post-Acquisition	FCC Solution	Pre- Acquisition to Post-Acquisition Increase (Decrease)	Pre-Acquisition to FCC Solution increase (Decrease)	Pre-Acquisition	Post-Acquisition	FCC Solution	Pre- Acquisition to Post-Acquisition Increase	Pre-Acquisition to FCC Solution Increase(Decrease)
WILLOW CREEK, IN TO IVANHOE, IN											
SWANSON	750	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
DOMBY RD	3,000	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
UNION ST	250	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
RIPLEY ST	14,370	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
PIKE ST	7[illegible]	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
GRAND BLVD	3,00	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
GIBSON	750	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
DE KALB	750	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
MLK/INDIANA AVE	3,000	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
VIRGINIA ST	750	3.29	3.09	3.40	(0.20)	0.11	31.58	35.20	95.64	3.62	64.06
MASSACHUSETS	3,000	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
BROADWAY ST	13,690	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
MADISON	1,276	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
HARRISON ST	750	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
GRANT ST	3,000	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
ROOSEVELT ST	250	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
TAFT ST	3,000	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
CHASE ST	3,050	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
CLARK RD	7,500	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
BURR ST	750	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
COLFAX AVE	850	3.29	3.09	Not Used	(0.20)	Not Used	31.58	35.20	Not Used	3.62	Not Used
WILLOW CREEK, IN TO PINE JCT, IN											
WILLOW CREEK RD	6,477	2.51	2.88	2.88	0.37	0.37	55.49	111.35	63.17	55.86	7.69
COUNTYLINE RD	7,500	2.51	2.88	2.88	0.37	0.37	55.49	111.35	63.17	55.86	7.69
HOBART RD	3,000	2.51	2.88	2.88	0.37	0.37	55.49	111.35	63.17	55.86	7.69
HOWARD ST	750	2.51	2.88	2.88	0.37	0.37	55.49	111.35	63.17	55.86	7.69
LAKE STREET	1,184	2.51	2.88	2.88	0.37	0.37	55.49	111.35	63.17	55.86	7.69
CLARK RD	7,250	2.51	2.88	2.88	0.37	0.37	55.49	111.35	63.17	55.86	7.69
PINE JCT, IN - BARR YARD, IL(CALUMET)											
STATE ROUTE 12	14,820	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
CLINE AVE	2,000	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
CLINE AVE	500	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	0.65	(36.11)
EUCLID AVE	7,500	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
KENNEDY	7,325	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
RAILROAD AVE	7,500	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
TOD AVE	2,000	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
INDPLS & SR20	13,650	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
BARING AVE	2,000	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
MAGOUN AVE	2,000	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
COLUMBIA AVE	15,000	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
ASH ST	500	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
CALUMET AVE	17,600	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
TORRENCE AVE	825	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
HENRY AVE	250	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
JOHNSON AVE	250	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
SHEFFIELD	8,030	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
HOHMAN AVE	10,500	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)
WABASH	250	4.47	5.23	5.23	0.76	0.76	123.39	174.03	87.28	50.65	(36.11)

Table 5-IN-45 (FCC)
Estimated Maximum Delay (in Minutes) for Highway/Rail At-Grade Crossings in the Four City Area

Roadway Name	ADT	Crossing Delay Per Stopped Vehicle					Total Blocked Time Per Day (in minutes)				
		Pre-Acquisition	Post-Acquisition	FCC Solution	Pre- Acquisition to Post-Acquisition Increase (Decrease)	Pre-Acquisition to FCC Solution Increase (Decrease)	Pre-Acquisition	Post-Acquisition	FCC Solution	Pre- Acquisition to Post-Acquisition Increase	Pre-Acquisition to FCC Solution increase(Decrease)
WARSAW (WHEELER) TO TOLLESTON, IN											
PARK AVE	588	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
JONES RD/625W	1,304	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
600N	1,896	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
COUNTY LINE RD	100	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
ILLINOIS AVE	7,880	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
LINDA ST	250	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
CLEVELAND ST	3,000	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
LAKE PARK	750	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
WISCONSIN ST	750	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
LIVERPOOL RD	850	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
MARTIN LUTHER KING/I	750	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
VIRGINIA ST	750	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
21ST ST	3,000	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
BROADWAY	17,890	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
WASHINGTON	3,000	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
19TH ST	3,000	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
JACKSON ST	250	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
17TH ST	750	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
HARRISON	750	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
15TH ST	3,300	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
13TH ST	3,000	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
11TH AVE	3,000	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
GRANT	3,600	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
10TH AVE	250	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
HOBART, IN TO PINE JCT, IN											
INDIANA ST	500	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
CENTER ST	500	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
MAIN ST	7,880	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
LAKE PARK	500	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
ASH ST	250	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
WISCONSIN ST	3,000	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
THIRD ST	3,000	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
COLORADO AVE	750	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
LIVERPOOL RD	2,300	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
KENTUCKY RD	750	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
GEORGIA ST	3,000	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
DELAWARE ST	3,000	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
41ST AVE	750	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
BROADWAY	27,192	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
WASHINGTON	3,000	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
ADAMS	750	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
MADISON	750	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
MONROE	3,000	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
JACKSON	750	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
HARRISON	5,420	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
PIERCE	250	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
GRANT ST	22,100	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
RIDGE ROAD	12,250	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
CHASE	7,500	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
CLARK RD	7,500	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
CALHOUN ST	100	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
COLFAX	11,372	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	14.56	Not Used	Not Used
BLACK OAK	100	Not Used	Not Used	4.52	Not Used	Not Used	Not Used	Not Used	22.60	Not Used	Not Used
25TH AVE	750	Not Used	Not Used	3.18	Not Used	Not Used	Not Used	Not Used	15.90	Not Used	Not Used
15TH AVE	3500	Not Used	Not Used	3.18	Not Used	Not Used	Not Used	Not Used	15.90	Not Used	Not Used
9TH AVE	750	Not Used	Not Used	3.18	Not Used	Not Used	Not Used	Not Used	15.90	Not Used	Not Used
5TH AVE	16420	Not Used	Not Used	3.18	Not Used	Not Used	Not Used	Not Used	15.90	Not Used	Not Used

Table 5-IN-45 (FCC)
Estimated Maximum Delay (in Minutes) for Highway/Rail At-Grade Crossings in the Four City Area

Roadway Name	ADT	Crossing Delay Per Stopped Vehicle					Total Blocked Time Per Day (in minutes)				
		Pre-Acquisition	Post-Acquisition	FCC Solution	Pre- Acquisition to Post-Acquisition Increase (Decrease)	Pre-Acquisition to FCC Solution Increase (Decrease)	Pre-Acquisition	Post-Acquisition	FCC Solution	Pre- Acquisition to Post-Acquisition Increase	Pre-Acquisition to FCC Solution Increase(Decrease)
TOLLESTON, IN TO CLARKE JCT, IN											
TAFT ST	3,000	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
5TH AVE	13,220	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
CLARKE RD	7,500	Not Used	4.62	Not Used	Not Used	Not Used	Not Used	23.08	Not Used	Not Used	Not Used
GARY TO ILLINOIS STATE LINE											
CLARK RD	7,500	Not Used	Not Used	3.40	Not Used	Not Used	Not Used	Not Used	95.64	Not Used	Not Used
BURR ST	750	Not Used	Not Used	3.40	Not Used	Not Used	Not Used	Not Used	95.64	Not Used	Not Used
COLFAX	750	Not Used	Not Used	3.40	Not Used	Not Used	Not Used	Not Used	95.64	Not Used	Not Used
VAN LON, IN to OSBORNE, IN											
EULER ST	3000	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	5.82	Not Used	Not Used
GRANDE AVE	500	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	5.82	Not Used	Not Used
173rd ST	3000	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	5.82	Not Used	Not Used
PARRISH ST	500	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	5.82	Not Used	Not Used
ARIZONA AVE	200	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	5.82	Not Used	Not Used
169TH ST	12650	Not Used	Not Used	2.91	Not Used	Not Used	Not Used	Not Used	5.82	Not Used	Not Used
KENNEDY AVE	25000	Not Used	Not Used	3.18	Not Used	Not Used	Not Used	Not Used	6.36	Not Used	Not Used
OSBORNE,IN to MICHIGAN AVE. YARD, IN											
165th ST	10250	Not Used	Not Used	5.32	Not Used	Not Used	Not Used	Not Used	10.65	Not Used	Not Used
KENNEDY & 151st ST	3000	Not Used	5.32	5.32	Not Used	Not Used	Not Used	Not Used	10.65	Not Used	Not Used
149th ST	1200	Not Used	5.32	5.32	Not Used	Not Used	Not Used	Not Used	10.65	Not Used	Not Used
148th ST	800	Not Used	5.32	5.32	Not Used	Not Used	Not Used	Not Used	10.65	Not Used	Not Used
CHICAGO AVE	16320	Not Used	5.32	5.32	Not Used	Not Used	Not Used	Not Used	10.65	Not Used	Not Used
TOLLESTON, IN TO IHB CONNECTION											
ROOSEVELT ST	250	Not Used	3.09	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
TAFT ST	300	Not Used	3.09	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
CHASE ST	3050	Not Used	3.09	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
CLARK ST	7500	Not Used	3.09	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
BURR ST	750	Not Used	3.09	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
COLFAX AVE	850	Not Used	3.09	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used

Table 5 - IN - Supplemental

Vehicle Delays

	Segment (1)	Vehicle Hours of Delay per 24 Hours at Night/Weekend ADT			
		Current (2)	Post Acquisition Proposal Applicants (3)	Post Acquisition Proposal FCC (4)	Difference Applicants-FCC (5)
1	WILLOW CREEK, IN TO IVANHOE, IN	41.49	43.40	54.31	-10.91
2.	WILLOW CREEK, IN TO PINE JCT, IN	23.24	53.59	30.40	23.19
3.	PINE JCT, IN - BARR YARD, IL(CALUMET)	495.23	816.58	409.52	407.07
4.	GARY TO ILLINOIS STATE LINE	0.00	0.00	18.76	-18.76
5.	WARSAW (WHEELER) TO TOLLESTON, IN	not used	40.52	not used	40.52
6.	TOLLESTON, IN TO CLARKE JCT, IN	not used	9.71	not used	9.71
7.	HOBART, IN TO PINE JCT, IN	not used	not used	57.95	-57.95
8.	VAN Lon, IN to OSBORNE, IN	not used	not used	5.70	-5.70
9.	OSBORNE, IN to MICHIGAN AVE. YARD, IN	not used	7.79	11.43	-3.64
10.	TOLLESTON, IN to IHB CONNECTION	not used	1.74	not used	1.74
	Totals	**559.97**	**973.33**	**588.07**	**385.26**

Vehicle Hours of Delay per Year

11.	**Total Hours of Vehicle Delay per Year**	**204,387**	**355,266**	**214,645**	**140,621**
12.	**Yearly Difference between Applicants and Current**		**150,879**		
13.	**Yearly Difference between FCC and Current Totals**			**10,258**	
14.	**Yearly Difference between Applicants and FCC Totals**				**140,621**

STB FD • 33388 2-2-98 K • 185501

TOH-2

BEFORE THE
SURFACE TRANSPORTATION BOARD

FINANCE DOCKET NO. 33388
CSX CORPORATION AND CSX TRANSPORTATION INC.
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
-- CONTROL AND OPERATING LEASES/AGREEMENTS --
CONTRAIL INC. AND CONSOLIDATED RAIL CORPORATION

COMMENTS OF THE TOWN OF HAYMARKET ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Pursuant to the Final Procedural Schedule adopted in Decision No. 6, served May 30, 1997, The Town of Haymarket, a body corporate and politic of the Commonwealth of Virginia, ("Haymarket"), submits its comments on the December 12, 1997 Draft Environmental Impact Statement ("DEIS") in the above-entitled proceeding. For the reasons stated herein, the Section of Environmental Analysis ("SEA") is requested to ensure that the final Environmental Impact Statement ("EIS") includes a provision contemplating Surface Transportation Board ("Board" or "STB") oversight over the environmental impacts of the proposed transaction (referred to herein as the "Conrail consolidation") for at least the same length of time that the Board maintains oversight with regard to the economic aspects of the consolidation.

BACKGROUND

On June 6, 1997, Haymarket submitted its Notice Of Intent To Participate in this proceeding (TOH-1). At that time, as now, Haymarket's sole concern with the Conrail consolidation was with regard to potential environmental impacts of increased Norfolk Southern Railway Company ("NS") traffic over what is commonly

known as its "B Line" which runs through Haymarket.[1/]

Haymarket's concerns with NS operations over the B Line are neither new nor unsubstantiated. As reported in the November 21, 1997 letter from Mayor Kapp to SEA's Elaine Kaiser (attached hereto), there have been three railroad accidents in the last fourteen months in the Haymarket area, i.e. a November 21, 1996 fatality caused by a train/passenger vehicle collision, a May 2, 1997 train derailment, and a July 11, 1997 train/tractor trailer collision.

Haymarket is aware of the fact that the NS operating plan contemplates a reduction in the average number of through trains operating over the B Line.[2/] We also are aware of the fact that the Board's environmental review in cases such as this is limited to areas of increased activity.[3/] Accordingly, Haymarket does not seek imposition of specific environmental conditions at this time other than the reporting condition described herein. However, given that the NS operating plan is not binding on the railroad, given the clear potential for increased operations over the B Line in the relatively near future, and given Board precedent in maintaining oversight over major consolidations,

---

[1/] In the Applicants' June, 1997 Railroad Control Application, the B Line is identified as the NS Riverton Jct VA to Manassas VA line segment. See e.g. CSX/NS-20 at 465, Figure D.6-2. The B Line is part of what NS describes as the "Piedmont Route." CSX/NS-19 at 243, Figure TLF-8.

[2/] This reduction is from 11.3 trains/day to 8.8 trains/day. Id.

[3/] See e.g. DEIS, ES-15.

Haymarket requests the imposition of an environmental oversight condition on the Conrail consolidation.[4]

THE RATIONALE FOR ENVIRONMENTAL OVERSIGHT

Unlike construction activity, which is well-defined and usually of short duration, the process of consolidating major railroads can vary substantially from original plans and can take years. By way of example, while the Union Pacific/Southern Pacific merger was consummated in 1996[5], the process of actually coordinating those two railroads still is not complete and the shifting of traffic between various line segments also is not complete.[6] Of perhaps greater importance, experience gained in the early years of railroad consolidations can and does result in railroad operations that differ markedly from those contemplated in the consolidation applications.

This is not to say or even to suggest that the NS operations data presented to the Board in this case was prepared in bad faith in an attempt to minimize the cost of environmental

---

[4] Environmental oversight would not be required if either NS were to agree to a cap on its average daily movements on the B Line equal to the 8.8 trains per day projected in its operating plan or if the Board were to condition its approval of the merger on such a cap.

[5] See Finance Docket No. 32760, Union Pacific Corporation, Union Pacific Railroad Company, And Missouri Pacific Railroad Company -- Control And Merger -- Southern Pacific Railroad Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp., And The Denver And Rio Grande Western Railroad Company, Decision No. 44. (cited hereafter as "UP/SP, Decision No. 44").

[6] See e.g. the 1996 Union Pacific Annual Report which gave a mid-1998 target date for the completion of the integration of Union Pacific and Southern Pacific.

mitigation. Rather, Haymarket notes only that experience gained after the consolidation has been consummated can have a significant effect on the traffic actually operating over any given line segment.

By way of example, Haymarket would point again to the UP/SP merger. The applicants in that proceeding proposed a major corridor upgrade for their trackage between Topeka and Fort Worth.[7/] However, UP now proposes to upgrade a different route for its coal movements to Oklahoma and Texas.[8/] Thus, the original line segment density studies prepared by UP/SP, upon which the STB's environmental analysis was premised, will not accurately portray the facts two to three years after consummation of the merger.

In this case, there is ample reason for concern that the NS portrayal of its future use of the B Line, i.e. a reduction of 2.5 trains per day,[9/] understates what will happen two to three years after consummation of the Conrail consolidation. On the one hand, NS projects reduced traffic on the B Line (part of the Piedmont Route) as a result of a rerouting of traffic from the Piedmont Route to the Shenandoah Route. CSX/NS-18 at 538. On the other hand:

[7/] Id.

[8/] See eg. the July 1, 1997 Applicants' Report On Merger And Condition Implementation at 24-25 and the August 4, 1997 Comments Of The Lower Colorado River Authority And The City Of Austin, Texas at 6-7.

[9/] CSX/NS-20 at 464.

1) NS states that the B Line is part of one of the "Primary Expanded NS Corridors." CSX/NS-20 at 112, Figure 13.3-5;

2) NS also states that the B Line is part of its "New Intermodal Service Network." CSX/NS-20 at 161, Figure 13.3-22;

3) NS also states that the B Line is part of its "Improved Norfolk/Hampton Roads--Detroit Route." CSX/NS-19 at 248, Figure TLF-12;

4) NS also identifies the B Line as part of its "Piedmont Route." CSX/NS-19 at 243, Figure TLF-8;

5) NS also states that the portion of the Piedmont Route that includes the B Line "will be used for traffic destined to Philadelphia and northern New Jersey as well as for all doublestack and multi-level automobile traffic. At Harrisburg, connections with other CR routes to be operated by NS will be made for traffic to/from Pittsburgh, Buffalo and New England." CSX/NS-18 at 536; and

6) NS also explains that the Piedmont Route, of which the B Line is a part, will also connect with its "Bridge Route" for "access to the Southeast and with the Penn Route to the West." CSX/NS-18 at 534.

In light of the fact that the claimed reduction in traffic on the B Line is contingent upon the proposed upgrade of the Shenandoah Route and in light of all of the above-summarized expected uses of the B Line, **as described by NS**, the NS's projected reduction in its use of the B Line cannot reasonably be deemed certain. Stated another way, the Board can no more reach a final conclusion at this time as to the environmental impacts of the Conrail consolidation than it can reach a final conclusion at this time as to the competitive impacts of that consolidation.

THE REQUESTED OVERSIGHT CONDITION

The concept of continued Board oversight in major consolidation procedures is by no means novel. By way of example, in its August 6, 1996 decision in the UP/SP merger proceeding, the Board stated:

> We also will impose as a condition the 5-year oversight period to examine whether the conditions we have imposed have effectively addressed the competitive issues they were intended to remedy.[10/]

The Board further stated:

> We retain jurisdiction to impose additional remedial conditions if, and to the extent, we determine that the conditions already imposed have not effectively addressed the competitive harms caused by the merger.[11/]

Here, continued Board oversight is known to be acceptable to NS. See, e.g. the Agreement Between The National Industrial Transportation League, Norfolk Southern, and CSX. CSX/NS-176 at

---

[10/] UP/SP Decision No. 44 at 107.

[11/] Id. at 146. See also Ordering Paragraph No. 6 at 231.

771.[12] Notably, the NITL/NS/CSX agreement is not limited to "competitive issues." Rather, that agreement states:

> The Board should require specific oversight of the implementation and effect of the transaction for a three-year period. This condition is not intended to limit the authority of the Board to continue oversight beyond the three-year period, or limit the right of any party, including the Organization, to request continued oversight if conditions at the end of the three year period warrant such a request.

In light of this agreement, the Haymarket request for Board oversight over environmental impacts should not be controversial. However, since Haymarket notes that the quarterly reports mandated by the NITL/NS/CSX agreement do not specifically contemplate a reporting of the data of concern to Haymarket[13], we request that the reports mandated by the NITL/NS/CSX agreement be augmented by the adoption of the following language.

> For the purposes of monitoring the environmental impacts of the Conrail consolidation on the Town of Haymarket, NS shall file on a monthly basis with the Board, and provide a copy to counsel for Haymarket, verified copies of station passing reports of train movements through Haymarket, VA for each day of each preceding month. Such reports shall be filed and served for each month of the first five years following consummation of the Conrail consolidation.

---

[12] See also, CSX/NS-176 at 708, 726-728.

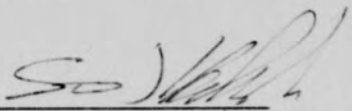
[13] However, the reporting requested by Haymarket is fully consistent with item (e) of the reports contemplated by the NITL/CSX/NS agreement, i.e. "any other matters about which the Board or Council reasonably requests information."

CONCLUSION

Unlike the construction elements of the instant proceeding, which can be described with particularity, the operational elements, including the number of trains operating over each line segment are, at best, estimates. Here, Haymarket has presented more than ample justification for its concern that NS has understated the potential for increased traffic through a community that has experienced severe problems, including one fatality, as a result of the current level of NS operations. The requested reporting condition would not create an undue burden for NS and would permit the Board to take necessary action in the event that NS operations through Haymarket later prove to require environmental mitigation. The requested reporting condition should be recommended by SEA and should be adopted by the Board.

Respectfully submitted,

The Town Of Haymarket

By: 

Steven J. Kalish
McCarthy, Sweeney
& Harkaway, P.C.
1750 Pennsylvania Ave., N.W.
Washington, D.C. 20006

Its Attorney

Dated: February 2, 1998

The Town of
HAYMARKET
-Established in 1799-
County of Prince William

November 21, 1997

Ms. Elaine K. Kaiser
Surface Transportation Board
1925 K Street, NW, Room 504
Washington, DC 20423-0001

Re: Finance Docket No. 33388
CSX/Norfolk Southern/Conrail

Dear Ms. Kaiser:

I write as the Mayor of the Incorporated Town of Haymarket, Virginia, approximately 40 miles west of Washington, DC. Our small historic town is transected by the "B Line" of the Norfolk Southern railroad that transports freight to and from the Hampton Roads port and points west.

We are extremely concerned about the safety of our area residents and the future impact of Norfolk Southern's use of the B Line. This freight rail line travels through a densely populated residential neighborhood in Haymarket, along a feeder stream for a major public water source, past a pre-Civil War church and across U.S. Route 29, one of the most heavily traveled highways along the East Coast and already the most dangerous rail/public highway crossing in Virginia.

In the last year alone there have been two major rail accidents and one death in our immediate area. On May 2, 1997, a freight train derailed at Route 29, narrowly missing an occupied day care center, a propane storage yard and a gas station. On July 11, 1997, a train struck a tractor trailer near the same crossing. Sadly, on November 21, 1996, a local resident was killed when her car was struck by a train at an unguarded crossing.

The potentials for environmental and public safety disasters are great along the B Line. Nearly two years ago Norfolk Southern announced it intended to greatly increase freight traffic along this line, which provoked substantial public outcry and expressions of concern by local fire and rescue agencies. However Norfolk Southern's organization plan filed before your agency in connection with the Conrail acquisition shows freight traffic not increasing, but in fact, slightly decreasing.

On behalf of the Town, I strongly appeal for your assistance in ensuring Norfolk Southern is held to its plan for not increasing freight traffic on the B Line after its acquisition of Conrail lines. We believe this commitment must be reflected as part of its safety integration plan -- ordered by your agency on November 3 -- exactly because this is a significant safety issue for our community.

Post Office Box 87 • Haymarket, Virginia 20168 • (703) 753-2600 fax (703) 753-2800

Further, we request that the Surface Transportation Board retain jurisdiction over Norfolk Southern's future use of the B Line after its decision on the acquisition to assure the health and well-being of our local residents.

Thank you for your kind consideration.

Sincerely,

John Kapp
Mayor

cc: Ms. Jolene M. Molitoris
Administrator, Federal Railroad Administration
400 7th Street, SW ROA-1
Washington, DC 20590

Steven Kalish, Esq.
McCarthy Sweeney Harkaway
1750 Pennsylvania Ave. NW
Washington, DC 20006

STB FD 33388 2-2-98 K 185507

ENVIRONMENTAL DOCUMENT

BEFORE THE
SURFACE TRANSPORTATION BOARD

35507

Finance Docket No. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC., NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY-- CONTROL AND OPERATING LEASES/AGREEMENTS – CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION – TRANSFER OF RAILROAD LINE BY NORFOLK SOUTHERN RAILWAY COMPANY TO CSX TRANSPORTATION, INC.

COMMENTS OF
AMERICAN PUBLIC TRANSIT ASSOCIATION
ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Daniel Duff
Chief Counsel
Mattie C. Condray
Senior Counsel
American Public Transit Association
1201 New York Ave., NW
Washington, DC 20005
202-898-4000

American Public Transit Association
1201 New York Avenue, N.W.
Washington, DC 20005-6141
Phone (202) 898-4000
FAX (202) 898-4070
<www.apta.com>

February 2, 1998

The Honorable Vernon A. Williams
Secretary
Surface Transportation Board
1925 K Street, N.W., Room 700
Washington, DC 20423-0001

Attention: Elaine K. Kaiser
Environmental Project Director
Section of Environmental Analysis

Dear Secretary Williams:

I write to provide the comments of the American Public Transit Association (APTA) regarding the Draft Environmental Impact Statement (DEIS) prepared regarding Surface Transportation Board (STB) Finance Docket No. 33388, *CSX Corporation and CSX Transportation, Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company – Control and Operating Leases/Agreements–Conrail, Inc. and Consolidated Rail Corporation.* Some of the Association's commuter rail members are submitting their own comments directly to the STB or comments are being made on their behalf by their respective state governments. The views presented here do not necessarily represent those of the individual transit agencies or the government of the states in which they are located.

APTA is a nonprofit international association of over 1,100 member organizations including transit systems; planning, design, construction and finance firms; product and service providers; academic institutions, and state associations and departments of transportation. APTA members serve the public interest by providing safe, efficient and economical transit services and products. Over ninety percent of persons using public transportation in the United States and Canada are served by APTA members. APTA's fourteen United States commuter rail members include the eleven commuter railroads that will be affected by the pending acquisition, railroads that carry over 352 million passengers a year and over 1.2 million passengers every weekday.

In APTA's October 21, 1997, comments to the STB on the proposed acquisition (copy enclosed), I raised a number of issues regarding the impact of the proposed acquisition of Conrail by CSX and NS, focusing most particularly on the issue of passenger rail system access to freight lines and how freight operations affect commuter rail service and schedules. My comments covered not only the impacts upon existing commuter rail operations, but also the impact upon proposed new or expanded rail operations.

In the DEIS, this issue is considered in the Traffic and Transportation section. The report concludes "that there would be no significant potential system-wide, regional or local capacity impacts to commuter rail service. Each of the rail line segments with commuter trains can accommodate the proposed acquisition-related increase in freight traffic." We strongly disagree.

In our comments we cited several specific corridors where commuter rail operations will be significantly affected by the acquisition. For example, in the Virginia Railway Express (VRE) Fredericksburg corridor, an already highly congested line, an increase of forty percent, or seven trains per day, is projected by CSX. Given the considerable difficulties that VRE has already experienced at the hands of its freight partners in the corridor, the finding that such an increase will have "no significant potential impacts to commuter rail service" is not consistent with what is already occurring. A similar situation exists in the Maryland Mass Transit Administration MARC commuter railroad service Brunswick corridor, where an increase of seven to eight trains is expected after the acquisition. MARC passenger service has already been condensed in light of future freight increases, resulting in the reduction of one revenue passenger train a day and narrowing the windows for passenger train schedules to less desirable time slots. On the MARC's Camden Line, mid-day passenger service has been eliminated to accommodate growth in freight traffic.

With regard to proposed new rail systems or expansions to current rail systems, the DEIS findings are totally silent on the potential limitations on passenger rail service which could result from the acquisition. Proposals that are under active consideration in New Jersey, Philadelphia and Cleveland come immediately to mind as areas where the CSX and NS have not been willing to work out agreements regarding potential passenger rail services. In general, the acquisition has stalled many of these discussions; and these and other passenger rail reactivation plans may be more difficult, if not impossible, due to the acquisition. In these three areas alone, tens of millions of federal, state and local dollars already invested in acquiring land and designing these potential rail projects could be jeopardized by the acquisition.

In our previous comments, we pointed out the need for the STB to put into place, as a stipulation to this acquisition, a process that will provide a means to resolve disputes between freight and commuter railroads, and to safeguard the public's interest in and investment in passenger rail service. The failure of the DEIS to provide an objective analysis of the impact of the proposed freight traffic increases on current passenger operations, and its failure to address the acquisition's impact on new passenger rail systems, makes my original suggestion even more important.

Further, the STB's erroneous conclusion regarding the capacity impacts of the proposed acquisition leads to the development of a flawed assessment of the acquisition's environmental impacts. Specifically, the DEIS underestimates the potential deleterious effects on the environment, likely to result from significant negative changes in transportation and congestion patterns, due to an inability of commuter rail operators to provide service at current and future desirable levels. Similarly, the DEIS does not adequately address the effect of delays and lost productivity on the overall transportation system due to potential decreased commuter train use and attendant increased private vehicle use and traffic congestion; nor ambient air quality effects related to rail operation changes, increased traffic delays or congestion.

Finally, we must take serious issue with the STB's suggestion that there should be a required fifteen (15) minute separation between freight and passenger trains on shared use track. Commuter rail operations depend on tight headways and on utilizing the maximum time possible on already limited operational windows. The institution of additional limitations on operations would create insurmountable difficulties for passenger operations. Moreover, the STB provides no justification for such an onerous operational burden, and as noted above, any situation in which the ability of passenger rail operators to provide reliable, frequent service is likely to carry with it significant negative environmental effects related to increased traffic congestion.

Improving the nation's mass transit network is critical if the United States hopes to realize its goals of improving the environment and enhancing mobility. Cooperative relationships between freight and passenger railroads are central to these efforts. The Surface Transportation Board should use this acquisition as an opportunity to promote cooperation between CSX and NS and commuter rail operations, ensuring that rights-of-way that are necessary for passenger service are available to the public. APTA believes that, as a condition to the approval of this acquisition, the STB needs to define a process that will ensure that fair and reasonable operating rights agreements can be established in the future, with fair and reasonable compensation to CSX and NS. By taking such action, the Board will assure that commuter rail service in freight corridors is protected for the American public interest in the future.

Sincerely yours,

William W. Millar

William W. Millar
President

WWM:fh
Enclosure

BEFORE THE
SURFACE TRANSPORTATION BOARD

Finance Docket No. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC.,
NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY-- CONTROL AND OPERATING LEASES/AGREEMENTS – CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION – TRANSFER OF RAILROAD LINE BY NORFOLK SOUTHERN RAILWAY COMPANY TO CSX TRANSPORTATION, INC.

CERTIFICATE OF SERVICE

I hereby certify that I have served Administrative Law Judge Jacob Leventhal and all Parties of Record, by first class mail, with the notice of the American Public Transit Association's comments on the Draft Environmental Impact Statement in the above captioned proceeding.

Mattie C. Condray
Senior Counsel
American Public Transit Association
1201 New York Avenue, NW
Washington, DC 20005
202/898-4108

STB FD 33388 2-2-98 K 185506

185506

SLOVER & LOFTUS
ATTORNEYS AT LAW
1224 SEVENTEENTH STREET, N. W.
WASHINGTON, D. C. 20036

WILLIAM L. SLOVER
C. MICHAEL LOFTUS
DONALD G. AVERY
JOHN H. LE SEUR
KELVIN J. DOWD
ROBERT D. ROSENBERG
CHRISTOPHER A. MILLS
FRANK J. PERGOLIZZI
ANDREW B. KOLESAR III
JEAN M. CUNNINGHAM
PETER A. PFOHL

202 [illegible]-7170

February 2, 1998

K

ENVIRONMENTAL DOCUMENT

BY HAND DELIVERY

Office of the Secretary
Case Control Unit
Finance Docket No. 33388
Surface Transportation Board
ATTN: Elaine K. Kaiser
Environmental Project Director
Environmental Filing
1925 K Street, N.W.
Washington, D.C. 20423-0001

Re: Finance Docket No. 33388, CSX Corporation and CSX Transportation Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company -- Control and Operating Leases/Agreements -- Conrail Inc. and Consolidated Rail Corporation

Dear Ms. Kaiser:

Enclosed for filing in the above-referenced proceeding, please find an original and ten (10) copies of the Comments of the State of New York on Draft Environmental Impact Statement (NYS-26).

We have included an extra copy of the filing. Kindly indicate receipt by time-stamping this copy and returning it with our messenger.

Thank you for your attention to this matter.

Sincerely,

Jean M. Cunningham

Jean M. Cunningham
Attorney for the State of New York

Enclosures

NYS-26

BEFORE THE
SURFACE TRANSPORTATION BOARD

CSX CORPORATION AND CSX TRANSPORTATION, INC., NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY -- CONTROL AND OPERATING LEASES/AGREEMENTS -- CONRAIL, INC. AND CONSOLIDATED RAIL CORPORATION	Finance Docket No. 33388

COMMENTS OF
THE STATE OF NEW YORK
ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

THE STATE OF NEW YORK BY AND
THROUGH ITS DEPARTMENT OF
TRANSPORTATION

Dennis C. Vacco
Attorney General of the
State of New York
Stephen D. Houck
Assistant Attorney General
George R. Mesires
Assistant Attorney General
120 Broadway, Suite 2601
New York, New York 10271

William L. Slover
Kelvin J. Dowd
Christopher A. Mills
Jean M. Cunningham
Slover & Loftus
1224 Seventeenth Street, N.W.
Washington, D.C. 20036
(202) 347-7170

Attorneys and Practitioners

OF COUNSEL:

Slover & Loftus
1224 Seventeenth Street, NW.
Washington, D.C. 20036

Dated: February 2, 1998

BEFORE THE
SURFACE TRANSPORTATION BOARD

CSX CORPORATION AND CSX TRANSPORTATION, INC., NORFOLK SOUTHERN CORPORATION AND NORFOLK SOUTHERN RAILWAY COMPANY -- CONTROL AND OPERATING LEASES/AGREEMENTS -- CONRAIL, INC. AND CONSOLIDATED RAIL CORPORATION	)	Finance Docket No. 33388

COMMENTS OF
THE STATE OF NEW YORK
ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

The State of New York, acting by and through its Department of Transportation ("New York"), hereby submits these Comments on the Draft Environmental Impact Statement ("DEIS") served December 12, 1997 by the Board's Section of Environmental Analysis ("SEA").

IDENTITY AND INTEREST

New York is a sovereign state, and a full party of record in this proceeding. The New York State Department of Transportation is the executive department responsible for supervising and administering State policies and interests relating to rail transportation through, within, or affecting New York.

New York and its citizens have an obvious and substantial interest in the preservation and enhancement of their environment. As both federal and state law and policy mandate,

and the long-term health, comfort, and well-being of New Yorkers require, the State must continue taking affirmative steps toward a cleaner, safer environment. At the same time, New York must guard vigilantly against proposals or projects that threaten to detract from the progress being made in the environmental arena.

The Applicants'[1] proposed division and subsequent operation of Conrail's assets threatens to impede New York's on-going efforts to protect the quality of air in certain areas of the state from any further deterioration, and to restore the same as quickly as possible to acceptable levels. The Applicants have not taken appropriate and necessary steps -- nor does the DEIS recommend that they do so -- to ensure that their transaction, at the very least, does nothing to exacerbate New York's already serious air quality problems. As discussed below, the Board must closely examine the DEIS' conclusions regarding system-wide, regional, and New York air quality impacts, and recognize the substantial -- but not unavoidable -- adverse effect that Applicants' transaction will have on New York's air quality and air quality improvement plans.

New York further urges the Board to examine the DEIS' analysis of passenger rail safety issues. Though New York places the highest priority on safe railroad operations, New York does

---

[1] For purposes of these Comments, all references to "Applicant(s)" indicate either or both CSX and NS. All references to "CSX" include CSXC, CSXT, and their wholly owned subsidiaries; all references to "NS" include NSC, NSR, and their wholly owned subsidiaries; all references to "Conrail" include CRR, CRC, and their wholly owned subsidiaries.

not agree with the mitigation recommended to alleviate perceived safety impacts on one line segment located in New York. As detailed below, New York supports the Comments filed by Metro-North Commuter Railroad Company ("Metro-North") in this regard, and, consistent with those Comments, asks that the Board reject SEA's proposed mitigation measure.

THE DRAFT EIS

A. Air Quality Impacts And Mitigation Affecting New York

As the Board's NEPA-implementing[2] regulations require, the Applicants' Environmental Report ("ER")[3] and the DEIS examine potentially significant effects of the proposed transaction upon several environmental impact categories. In particular, the ER sets forth Applicants' views as to the transaction's projected effect on air quality, which conclusions the DEIS reviews. This air quality analysis addresses system-wide, regional, and local impacts of changed "Acquisition-related" railroad activities, and assesses the need for measures mitigating increases in air pollutant emissions.[4] Specifically, SEA considered the effect of increased operations on rail line segments, and at rail yards and intermodal facilities, as well as emissions resulting from abandonments and construction projects within the Applicants'

---

[2] See 49 C.F.R. pt. 1105.

[3] CSX/NS-23 Application, vol. 6A-B, filed June 23, 1997; CSX/NS-54 Application, vol. 6. Supplemental Environmental Report, filed Aug. 28, 1997.

[4] See DEIS, vol. 3B at NY-18.

proposed new systems. SEA estimated the likely contribution of these operations and activities to NOx, CO, VOC, SO2, PM-10, and Pb pollution.[5]

According to the DEIS, SEA concluded that transaction-related increases in emissions of these pollutants -- system-wide, regionally, and in New York State -- require no mitigation.[6] System-wide, SEA first determined, emissions of all six pollutants will increase. SEA further found, however, that predicted truck-to-rail freight transportation diversions should produce decreases in NOx, CO, VOCs, PM-10, and Pb emissions, "offsetting" the acknowledged transaction-related increases in these same pollutants. Relying on this conclusion -- and thus the Applicants' truck diversion estimates supporting it -- SEA declined to recommend any mitigation for system-wide increases in emissions of these five pollutants. Though SEA found that system-wide SO2 emissions will likely increase even after adjusting for estimated truck diversions, SEA considered the "small relative increase" in such emissions "insignificant," and thus not subject to mitigation.[7]

---

[5] "NOx" refers to nitrogen oxides, pollutants which contribute to the formation of ozone ("O3"). "CO" refers to carbon monoxide; "VOCs" refers to volatile organic compounds, another ozone precursor. "SO2" refers to sulfur dioxide; "PM-10" refers to particulate matter of less than ten microns in diameter; "Pb" refers to lead. See DEIS, App. E at E-2.

[6] See DEIS, vol. 1 at 4-56, 4-63; vol. 3B at NY-24.

[7] DEIS, vol. 1 at 4-56.

SEA's regional air quality analysis, similarly, reveals that the proposed transaction will exacerbate regional air pollution, unless Applicants' ambitious truck-to-rail diversion estimates accurately predict "offsetting" emissions savings. SEA's regional analysis evaluated NOx emissions only, focusing exclusively on the transaction's potential harm to the Northeast Ozone Transport Region ("OTR").[8] SEA concluded that 6 of the states within the OTR -- including New York -- as well as the District of Columbia, would experience an increase in transaction-related NOx emissions.[9] SEA then turned to the Applicants' truck diversion predictions, and subtracted from the OTR's acknowledged NOx emissions increases all projected NOx "savings" attributable to diverted trucks. This adjustment resulted in a "small" net reduction of NOx emissions for the OTR as a whole, and the SEA's recommendation against any mitigation.[10] As in the "system-wide" analysis, this regional determination depends almost entirely on the existence of "NOx emissions decreases from truck diversions more than offset[ting] . . . increases in NOx emissions."[11]

---

[8] The Northeast OTR, designated and defined by section 184(a) of the Clean Air Act, as amended ("CAA"), consists of a group of northeastern states subject to special regulation focused on reducing the ozone transport problem of that region. See 42 U.S.C. §§ 7401 et seq..

[9] DEIS, vol. 1 at 4-59.

[10] Id.

[11] Id. (emphasis added).

SEA's evaluation of New York's "local" air impacts again identifies acquisition-related activities predicted to increase air pollution. Through application of its various thresholds and screening levels, SEA selected certain New York counties facing increased NOx emissions for closer examination; SEA determined at the outset that no other pollutant emissions warranted review.[12] For each New York county evaluated, SEA estimated NOx emissions increases; for some counties, SEA discounted these increases as insignificant, either by comparison to the county's overall pollution problem, or in light of the area's attainment status. For the remaining counties considered, SEA acknowledged that NOx emissions "could contribute to O3 formation on a regional level," and generally directed "refer[ence] to [DEIS] Chapter 4 for further discussion of the potential effects on regional air quality."[13] As discussed supra, SEA recommended no regional air quality mitigation. As a result, therefore, SEA's only determinations regarding local New York air quality either: (1) disregard increased NOx pollution, citing an allegedly small degree of increase or relatively clean air impacted; or (2) simply shift focus to regional impacts, without providing for their mitigation.

---

[12] SEA's analysis "thresholds" eliminated from DEIS consideration the impacts of the transaction on CO, VOCs, SO2, PM-10, and Pb emissions in New York. New York submits that this was in error, and urges the Board on re-examination to carefully evaluate the thresholds SEA used, and determine the adequacy of their protection for air quality.

[13] DEIS, vol. 3B at NY-22 (emphasis added).

B. Passenger Rail Safety Impacts Affecting New York

The DEIS also examines the proposed transaction's potential effects on a variety of safety-related issues. In particular, SEA evaluated the possibility of "increased accidents between freight and passenger trains" operating over the same track.[14] After identifying line segments meeting its analysis "threshold,"[15] SEA estimated the change in accident frequency likely to result from added freight trains on those lines. If the accident risk increased "significantly," SEA recommended mitigation. Specifically, SEA proposed that "all freight trains . . . be clear of the main track" at issue, "at least 15 minutes prior to the estimated arrival of the passenger train."[16] This, SEA determined, would "reinforc[e] passenger trains' priority over freight trains," and ensure that "the passenger train can pass safely and without delay."[17] SEA proposed no other measures to reduce increased risks of passenger/freight train collisions.

SEA's New York passenger train safety analysis focused on twelve line segments; only one of the twelve, SEA found,

---

[14] DEIS, vol. 3B at NY-8.

[15] SEA only analyzed segments carrying both freight and passenger trains that would experience a post-transaction increase of one or more freight trains per day. DEIS, vol. 3B at NY-8.

[16] DEIS, vol. 3B at NY-10.

[17] DEIS, vol. 3B at NY-10.

warranted safety mitigation.[18] For the 30-mile segment from Campbell Hall to Port Jervis in southeastern New York, SEA directed the Applicants to "establish passenger trains as 'superior' trains," and, accordingly, "clear . . . the track" during the 15-minute period before and after "the expected arrival of a passenger train at any point."[19] As Metro-North's Comments point out, and New York agrees, this "priority" designation is both unnecessary and potentially disruptive of future passenger operations over any lines affected by such a mitigation measure.

COMMENTS OF THE STATE OF NEW YORK

I.
Air Quality Concerns

New York has a significant investment in and responsibility for preserving and improving air quality, particularly in non-attainment areas surrounding and including New York City. New York respectfully submits that SEA's review and proposed mitigation of air quality impacts -- system-wide, regionally, and in New York -- are inadequate. In the first place, SEA relies heavily on uncertain truck diversion figures to conclude that the transaction threatens no significant system-wide and regional air quality impacts. SEA then compounds that error by failing to consider local impacts of all but one of the six pollutants

---

[18] The other eleven segments met SEA's threshold for passenger train safety analysis, but were not projected to experience an increase in accident frequency sufficient to trigger mitigation. Id.

[19] DEIS, vol. 4 at 7-12.

studied, and its conclusion that the sixth -- NOx -- will cause no cognizable harm in New York ignores the realities of air quality in New York City's metropolitan area, and proceeds on the misguided notion that "small" increases in air pollution, or increases affecting attainment areas only, are acceptable.

As discussed below, the Board must take a far more skeptical view of the crucial truck-to-rail diversion estimates central to SEA's air quality findings. In addition, the Board must adhere to the statutory and policy mandates governing air quality control, and act affirmatively to further the nation's and New York State's goals of reducing air pollution as quickly and comprehensively as possible.

A. New York Must And Will Continue Taking Steps To Improve and Protect Its Air Quality

As discussed at length in New York's prior filings in this proceeding, the State has long worked to implement programs improving its air quality.[20] New York's downstate counties, in particular, face serious air pollution challenges as a result of excessive and increasing vehicle emissions of CO, and ozone precursors NOx and VOCs.[21] Of the ten counties comprising the

---

[20] See NYS-24/NYC-17, Joint Rebuttal Statement of the State of New York and the New York City Economic Development Corporation, filed Jan. 14, 1998 at 24-27; R.V.S. John F. Guinan at 11-13; R.V.S. Seth O. Kaye.

[21] The United States Environmental Protection Agency ("EPA") has estimated that mobile sources are responsible for close to 50% of the annual emissions of NOx nation-wide, over one-third of the annual emissions of VOCs nation-wide, and over 75% of the annual emissions of CO nation-wide. See Emission Standards for Locomotives and Locomotive Engines, 62 Fed. Reg.

New York Metropolitan Area ("Area"), all are within ozone non-attainment regions.[22] Seven -- including New York City's five counties -- are non-attainment for CO; New York County is a non-attainment area for PM-10 as well.[23] These non-attainment designations indicate that each affected county is not in compliance with federal air quality standards applicable to those pollutants.[24]

New York, in addition, must grapple with the regional ozone problem plaguing a "contiguous corridor of [ozone] nonattainment counties" in the OTR.[25] OTR states, like New York, suffer the effects of ozone pollution transported up-wind or down-wind across state lines. This transport phenomenon affects OTR states' ability to achieve and maintain compliance with ozone standards. New York's highway vehicle emissions are a key factor in its impact on regional ozone formation: projected NOx emissions from New York's highway vehicles for the year 2007 exceed

---

6,366 (Feb. 11, 1997).

[22] See DEIS, vol. 5A App. E at Attach. E-1. Nine of the ten are further classified as "severe" ozone non-attainment areas -- the most serious of five possible classification levels. Id.

[23] Id.

[24] The CAA and implementing regulations establish National Ambient Air Quality Standards ("NAAQS") for certain "criteria" air pollutants. To date, EPA has set NAAQS for CO, Pb, NOx, O3, PM-10, and SO2. See CAA, 42 U.S.C. §§ 7408-7409; DEIS, vol. 5A App. E at E-2.

[25] DEIS, vol. 1 at 4-58. See Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone, 62 Fed. Reg. 60,318, 60,337-40 (Nov. 7, 1997).

those of all other OTR states.[26]

In light of its non-attainment problems and inclusion in the OTR region, New York has initiated a number of programs and projects aimed at reducing air pollution. As detailed in its prior Rebuttal filing, New York has implemented the Congestion Mitigation and Air Quality Improvement Program ("CMAQ"), a long-term, multi-agency effort focused on, among other things, diverting truck traffic to other transportation modes.[27] CMAQ has resulted in the State's coordinated investment with the Port Authority of New York and New Jersey of over $10 million to subsidize car float operations across New York Harbor. The State and the Port intended this alternative cross-harbor route to reduce reliance on trucks, and, at the same time, decrease truck-related air pollutant emissions.[28] New York has expended another $200 million over the last dozen years to subsidize construction of Oak Point Link, an intermodal facility designed to improve and expand railroad service into and out of the metropolitan New York City area.[29] Again, a major benefit of this project is reduced dependence on trucking, and corresponding air quality improvements.

In addition to these particular programs, as a general matter New York also conducts a thorough review of all proposed,

---

[26] Id. at 60,358.

[27] See NYS-24/NYC-17 at 25; V.S. Guinan at 11.

[28] Id.

[29] NYS-24/NYC-17 at 24-25; V.S Guinan at 5.

federally-funded transportation projects affecting nonattainment and maintenance areas, to ensure their consistency with state and federal air quality improvement plans and mandates. More specifically, New York's Metropolitan Planning Organizations ("MPOs") engage in "conformity" analyses evaluating such projects' expected impact upon emissions of non-attainment pollutants regulated by the State's official air quality plan ("SIP").[30] The New York City Metropolitan Area's MPO, for example, "NYMTC,"[31] recently completed its conformity determination for the Area's Transportation Improvement Plan ("TIP") governing future transportation-related projects in the region.[32] Through extensive, detailed, and coordinated review,[33] NYMTC verified that every activity contemplated by the TIP will contribute to the reduction of vehicle-produced, non-attainment pollutants -- NOx, VOCs, and CO -- in the Metropolitan Area. The TIP will yield emissions levels lower than 1990 "base year" levels, and lower than pre-TIP implementation levels. Consistent with both state and federal

---

[30] "SIP" refers to "State Implementation Plan," a lengthy, complex, and continuously updated document prepared pursuant to the CAA by all states. See CAA, 42 U.S.C. § 7410. Federally-funded transportation programs states implement must "conform" to the strategies and provisions contained in an approved SIP. See CAA, 42 U.S.C. § 7506 (c); 40 C.F.R. pts. 51, 93.

[31] "NYMTC" is an acronym for the New York Metropolitan Transportation Council.

[32] A copy of NYMTC's "1998 TIP and Plan/SIP Conformity Determination and Supporting Analysis," dated September, 1997, is in New York's document depository.

[33] A number of state agencies and municipal bodies participate in the review process.

policy, NYMTC's planned transportation improvements neither "cause[] or worsen[] air quality violations," nor "delay[] attainment" of ozone, CO or PM-10 NAAQS.[34] To the contrary, NYMTC's TIP makes additional strides in restoring to a healthy, acceptable level air quality in downstate New York.

The importance of continued air quality improvement through programs like CMAQ and TIP transportation projects will only intensify in coming years. The EPA recently promulgated new, more stringent ozone NAAQS, increasing the number of designated non-attainment areas, and rendering ozone attainment more difficult to achieve.[35] This change forces states, like New York, facing ozone attainment challenges, to implement the most effective and efficient NOx control measures possible. The EPA, in addition, has issued a Notice of Proposed Rulemaking outlining suggested SIP revision requirements for states contributing to ozone transport in the eastern United States.[36] The EPA's proposed rules will force New York and other states to adopt SIP measures ensuring that they meet state-specific NOx emissions "budgets" set by the EPA.[37] These NOx budgets include a "highway vehicle component," prescribing the maximum highway-source

---

[34] See 62 Fed Reg. at 60,358 (describing the purpose and significance of determining conformity).

[35] See 62 Fed. Reg. 38,856 (July 18, 1997).

[36] See 62 Fed. Reg. 60,318 (November 7, 1997).

[37] Id.

NOx emissions permitted in each state.[38] The adoption of these proposed regulations, along with the more stringent NOx standards, will render all the more crucial effective air quality control in New York, and careful avoidance of activities and projects undermining NOx emissions reduction.

B. Absent Sufficient Truck-To-Rail Diversion, The Applicants' Transaction Will Significantly Harm Air Quality

Despite New York's firm commitment to improving and preventing further deterioration of its air quality, the transaction Applicants propose threatens to compromise New York's efforts in this regard. Absent Board-directed action by the Applicants to ensure that sufficient high-pollutant truck traffic diverts to rail, the transaction will have an unacceptably severe, adverse impact upon New York's air quality interests.

1. The Board Must Act To Protect System-Wide And Regional Air Quality

As discussed above, the DEIS proposes no mitigation for system-wide, regional, or New York air quality impacts resulting from transaction-related activities. SEA's failure to recommend system-wide or regional mitigation derives directly from its conclusion that predicted truck-to-rail diversions will "offset" acknowledged increases in various air pollutants. Generally speaking, truck diversions certainly do produce positive air quality impacts. The Applicants themselves champion as a major benefit of their transaction "air emissions savings . . . real-

[38] Id. at 60,355-58.

ized as a result of substantial truck-to-rail diversions."[39] "Rail transport," Applicants emphasize, "is much more fuel efficient than truck transport;" truck-to-rail diversions "[t]herefore . . . reduce fuel consumption, [and] result in reduced emission of most pollutants."[40] Indeed, Applicants claim, "[t]he most significant change in air emissions resulting from the Acquisition is the emissions decrease that would result from . . . diverted truckloads."[41] As the EPA adopts additional and more stringent air emission standards, Applicants further acknowledge, "the beneficial effect of diverting freight from trucks to rail [will] . . . become even greater."[42]

Though both Applicants and the SEA endorse and rely on air quality benefits produced by truck diversions, the magnitude of the diversions predicted to result from the subject transaction is by no means certain. To the contrary, diversion estimates provided by the Applicants, and figuring so prominently into the SEA's analysis, may seriously overstate truck traffic reductions, and correspondingly underestimate detrimental air quality impacts. Several factors point to this conclusion. To begin with, as SEA admits, CSX and NS calculated the diversion estimates used in the DEIS; SEA adopted their figures without

---

[39] CSX/NS-23 Application, vol. 6B at 17; see also CSX/NS-177 Rebuttal, vol. 2B, R.V.S. Peter A. Rutski at 3.

[40] CSX/NS-23 Application, vol. 6B at 71.

[41] Id. at 81.

[42] Id. at 102.

detailed review or additional analysis.[43] The Applicants, of course, have every incentive to make optimistic assumptions and judgments supporting high truck diversion figures: reduced trucking constitutes one of the transaction's major alleged benefits.[44]

In addition, SEA acknowledges, "some overestimation of the truck-to-rail diversions has probably occurred."[45] "Anti-trust law principles," SEA explains, "preclude the railroads from cooperatively dividing freight transport between them."[46] "[S]ince CSX and NS [thus] independently developed their estimates of truck-to-rail diversions, there may be some double counting."[47] It is likely, in other words, that CSX and NS to some extent each predicted capturing certain same portions of current freight truck traffic; both, therefore, submitted emissions savings figures to the SEA for those diverted movements. Because only one of the two carriers could actually attract the subject truck traffic, however, their overlapping predictions distort emissions savings results.

---

[43] See DEIS, vol. 5A, App. E at E-3-4, E-15; vol. 1 at 4-54-55.

[44] See CSX/NS-23 Application, vol. 6B at 117; CSX/NS-19 Application, vol. 2A, V.S. Darius W. Gaskins, Jr.; V.S. John Q. Anderson; CSX/NS-23 Application, vol. 2B, V.S. Thomas L. Finkbiner; CSX/NS-176 Rebuttal, vol. 1 at HC-15-17; HC-463.

[45] DEIS, vol. 1 at 4-55.

[46] DEIS, vol. 1 at 4-41.

[47] DEIS, vol. 5A, App. C at C-3.

Finally, the railroads' -- and thus SEA's -- diversion projections fail to account for increased trucking that very well may result from the transaction and its aftermath. Though Applicants discount increased truck use as "minimal" and "negligible,"[48] the Applicants' plans for accommodating certain shipping and receiving markets belie this conclusion. Specifically, and in response to concerns raised by New York and the New York City Economic Development Corporation,[49] Applicants posit that the New York City metropolitan area east of the Hudson River will enjoy competitive post-transaction transportation options based on the availability of trucking. More particularly, Applicants claim that competition between CSX and NS in northern New Jersey will benefit east-of-Hudson shippers. This, they say, results from those shippers' access to the competitive New Jersey area by way of a truck connection across the Hudson River.[50] "Substantial traffic in the East-of-Hudson region," Applicants argue, "can be and/or [is] already trucked by trailer or container" to northern New Jersey.[51] In the absence of competitive rail ser-

---

[48] CSX/NS-23 Application, vol. 6B at 17; see DEIS, vol. 1 at 4-54 (citing Applicants' conclusion that "only a negligible amount of freight would be diverted from rail to trucks or other delivery modes").

[49] See NYS-10 Comments of the State of New York, filed October 21, 1997; NYS-12/NYC-11 Joint Responsive Application of the State of New York and the New York City Economic Development Corporation, filed October 21, 1997; NYS-27/NYC-17.

[50] See CSX/NS-176 Rebuttal at HC-125-127; CSX/NS-177 Rebuttal, V.S. Joseph P. Kalt; V.S. Peter A. Rutski.

[51] CSX/NS-177 Rebuttal, R.V.S. Kalt at 15 (emphasis added).

vice east of the Hudson, Applicants contemplate shippers' increased and long-term use of truck transportation to access competition on the west side. Indeed, Applicants cite "ample trucking alternatives" as justification for failing to provide those shippers with the alternative of competitive east-side rail service.[52] This truck-oriented approach to east-of-Hudson shipping calls into question, once again, the accuracy of SEA's assumptions regarding decreased truck use, and the air quality determinations dependent on those assumptions.

In light of the very probable overestimation of truck diversion figures, SEA's conclusions regarding system-wide and regional air quality impacts are dubious at best. As a result, the Board must take independent action to ensure that transaction-related activities do not compromise system-wide and regional air quality. To this end, New York urges that the Board endorse conditions on the proposed transaction that will ameliorate air quality. In particular, New York submits that approval of the trackage rights its Responsive Application requests[53] would encourage the substitution of rail transportation for highway trucking, and thus contribute to the reduction of motor vehicle-related air pollution. By providing an attractive rail option to east-of-Hudson shippers, New York's proposed trackage rights operations would facilitate precisely the type of truck-

---

[52] Id. at 17.

[53] NYS-12/NYC-11 Joint Responsive Application of the State of New York and the New York City Economic Development Corporation, filed October 21, 1997.

to-rail diversions Applicants and the SEA so strongly support. Such diversions, all concur, would bring about a corresponding reduction in truck emissions of NOx, VOCs, CO and other pollutants.

2. The Board Must Act To Protect Local Air Quality

The positive air quality impact that implementation of New York's trackage rights would entail extends beyond system-wide and regional pollution offsets resulting from truck diversions. Authorization of competitive rail service on the Hudson River's east side would also assist the New York City metropolitan area in meeting its local air pollution challenges. As discussed above, the ten counties comprising this region of the State are non-attainment areas for ozone, and in some combination, for CO and PM-10 as well. Though most of these counties received no detailed air impact review in the DEIS, several will in fact face increased post-transaction rail operations within their borders, and suffer corresponding air pollution effects.[54] The diversion of downstate truck traffic to east-of-Hudson rail transportation would assist in off-setting emissions produced by these added transaction-related activities, and advance the area's progress toward attainment status.

In addition to authorizing New York's requested trackage rights, the Board must conduct a careful review of SEA's conclusions regarding local air impacts outside of the New York metropolitan area. SEA accepts and dismisses far too readily air

---

[54] DEIS, Executive Summary, Attach. ES-B.

pollution increases predicted to affect attainment areas only, or result in allegedly small relative increases in emissions. This approach is inconsistent with New York's comprehensive and on-going efforts to reduce air pollution as quickly as possible state-wide, and is at odds with federal policy encouraging and mandating air pollution control measures. Incremental reductions in air pollution, and the preservation of attainment-level air quality, clearly advance the ultimate goal of achieving clean, healthy air, and should not be dismissed as insignificant or undeserving of protection.

II.
Safety Concerns

A. SEA's Proposed Passenger Train Safety Mitigation Is Unnecessary and Inadvisable

As Metro-North's Comments discuss, SEA's proposed passenger train "priority" designation would do little to improve safety on lines shared by freight and passenger traffic. More sophisticated and reliable control systems and signals exist that guard against train collisions, and ensure compatible operation of multiple trains on the same track. New York's Port Jervis line is equipped with such modern control devices, and would not benefit from the SEA's well-intended but cumbersome and minimally effective mitigation measure.

Metro-North also points out, and New York agrees, that imposition of a 30-minute clearance "window" will reduce the capacity of the subject line. New York supports Metro-North's position that this effect threatens to impede planned future

expansion of passenger service on the Port Jervis Line, and endorses Metro-North's opposition to the mitigation on this ground. New York, like Metro-North, intends to increase passenger train service on other lines through the State in coming years,[55] and views priority designations as incompatible with maximum efficient use of those rail lines. New York respectfully submits that the Board should reject the priority mitigation SEA suggests.

CONCLUSION

As outlined above, the DEIS does not adequately investigate the proposed transaction's likely harmful effects on system-wide, regional, and New York air quality. New York urges the Board to re-examine the SEA's findings, focusing on the issues identified by these Comments, and adopt conditions facilitating the preservation and improvement of air quality. In addition, New York asks that the Board reject SEA's recommended

---

[55] See NYS-10 Comments, V.S. James A. Utermark at 17-19.

passenger safety mitigation, as its problematic effects outweigh any benefits to rail safety it may have.

Respectfully submitted,

THE STATE OF NEW YORK BY AND
THROUGH ITS DEPARTMENT OF
TRANSPORTATION

By: Dennis C. Vacco
Attorney General of the
State of New York
Stephen D. Houck
Assistant Attorney General
George R. Mesires
Assistant Attorney General
120 Broadway, Suite 2601
New York, New York 10271

OF COUNSEL:

William L. Slover
Kelvin J. Dowd
Christopher A. Mills
Jean M. Cunningham
Slover & Loftus
1224 Seventeenth Street, N.W.
Washington, D.C. 20036
(202) 347-7170

Slover & Loftus
1224 Seventeenth Street, NW.
Washington, D.C. 20036

Dated: February 2, 1998

Attorneys and Practitioners

185502

LAW OFFICES
McCARTHY, SWEENEY & HARKAWAY, P.C.
1750 PENNSYLVANIA AVE., N. W.
WASHINGTON, D. C. 20006
TELEPHONE (202) 393-5710
TELECOPIER (202) 393-5721
email: msh@mshpc.com
http://www.mshpc.com

ORIGINAL

LAWRENCE W. BIERLEIN
DOUGLAS M. CANTER
JOHN M. CUTLER, JR.
ANDREW P. GOLDSTEIN
STEVEN J. KALISH
KATHLEEN L. MAZURE
HARVEY L. REITER
DANIEL J. SWEENEY

WILLIAM I. HARKAWAY
COUNSEL

February 2, 1998

Office of the Secretary
Case Control Unit
Finance Docket No. 33388
Surface Transportation Board
Room 715
1925 K Street, N.W.
Washington, D.C. 20423-0001

Attention: Elaine K. Kaiser
Environmental Project Director
Environmental Filing

Dear Ms. Kaiser:

On behalf of the Cities of Bay Village, Rocky River, and Lakewood, Ohio, I am submitting comments on the December 12, 1997 Draft Environmental Impact Statement. These comments include the following items:

1) BRL-6: Comments of City of Bay Village, City of Rocky River, and City of Lakewood, Ohio on the Draft Environmental Impact Statement;

2) Supplemental Verified Statement of Kevin F. Beirne;

3) Verified Statement of Brian F. Moran;

4) Verified Statement of James M. Sears;

5) Verified Statement of Edward J. Walter, Jr.;

6) Verified Statement of David H. Minott;

7) Supplemental Verified Statement of James R. Linden;

8) Supplemental Verified Statement of Christopher M. Flynn;

9) Supplemental Verified Statement of Donald L. Wagner; and

10) Discovery and Research Documents Cited In BRL-6, to wit:

a) NS-67-P-00484;
b) NS-32;
c) NS-67-P-02406;
d) NS-67-P-00739;
e) NS-67-P-01705;
f) NS letter of December 8, 1997;
g) BRL speed research;
h) NS letter of October 30, 1997;
i) NS letter of December 12, 1997;
j) Ohio Realtor, December 1997.

Respectfully submitted,

Steven J. Kalish
Attorney for:
Bay Village, Ohio
Rocky River, Ohio
Lakewood, Ohio

Enclosure

COMMENTS

BRL-6

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
SURFACE TRANSPORTATION BOARD

Finance Docket No. 33388

CSX CORPORATION AND CSX TRANSPORTATION, INC.
NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY
--CONTROL AND OPERATING LEASE/AGREEMENTS--
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

COMMENTS OF
CITY OF BAY VILLAGE,
CITY OF ROCKY RIVER,
AND CITY OF LAKEWOOD, OHIO
ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Pursuant to the schedule adopted for this proceeding, the cities of Bay Village, Rocky River, and Lakewood, Ohio (collectively referred to as "BRL") submit their comments on the Draft Environmental Impact Statement ("DEIS") issued December 12, 1997. Following a brief discussion of the background data, BRL's comments will be presented in three principal areas.

First, we will discuss the mitigation proposed by the DEIS. We will demonstrate that the proposed mitigation is inconsistent with the Surface Transportation Board's ("Board" or "STB") responsibilities under (1) the ICC Termination Act of 1995 ("ICCTA"); (2) the National Freight Transportation Policy of the U.S. Department of Transportation; and (3) the National Environmental Policy Act ("NEPA").

Second, we will discuss the analysis contained within the DEIS. We will demonstrate that major elements of the DEIS quantitative analysis are premised upon (1) unsupported assertions by Norfolk Southern Railway Company ("NS") and (2) erroneous input data. We will further demonstrate that major elements of the standards utilized by the DEIS to determine the need for mitigation are fatally flawed.

Finally, BRL will discuss the available data and will present our proposals for mitigation.

BACKGROUND

As summarized in BRL-2, Preliminary Environmental Comments of City of Bay Village, City of Rocky River, and City of Lakewood, BRL's concerns with the proposed division and control of Consolidated Rail Corporation by NS and CSX Transportation, Inc. arise out of the NS proposal to increase the daily level of traffic on its Cleveland, Ohio to Vermilion, Ohio line segment from a Base Case 13.5 trains per day[1/] to a Post-Acquisition Case 34.1 trains per day. Even assuming, arguendo, that the NS estimate of 34.1 trains per day has any basis in fact, a subject discussed infra, the NS proposal would mean that, on average,

---

1/ BRL note that NS asserts that its current number of trains on the Cleveland to Vermilion line segment is 16.4. DEIS Volume 3B, OH-135. BRL urge the Board to ignore the NS assertion as unsupported in the record. BRL counted each NS train each day during the period October 3 through November 3, 1997 and again during the period January 2 through 16, 1998. The average number trains per day was 14.78 in the first period studied and was 13.1 trains per day in the second period studied.

there would be one NS train operating every 42 minutes on this line segment.

The impacts of operation of one train every 42 minutes are discussed in BRL-2 and infra. Air quality would be degraded; railroad-generated noise would increase to levels unacceptable for residential areas; pedestrians and street traffic would be placed in increased danger; street traffic would be delayed; the ability of public safety providers, i.e. police, fire, and ambulance services, to reach victims in a timely manner would be seriously degraded; and property values would be reduced.

As also discussed in BRL-2, and as later confirmed by NS, none of these impacts is unavoidable. To the contrary, as explained in the November 25, 1997 letter from Bruno Maestri, System Director, Environmental Protection of NS[2/], an alternative route is available for all, or virtually all[3/], the additional trains proposed for operation by NS over the line segment. And, NS is willing to use this alternative route. The one thing that

---

[2/] This letter is reproduced in Volume 5C, Appendix S of the DEIS. See also, DEIS, Volume 2 at 196. BRL note that at Volume 3B, OH-138, the DEIS states that it received the NS plan on October 29, 1997. Since that document is not included in the DEIS, and since NS has not provided that document in response to discovery requests, BRL request that it be provided in the FEIS.

[3/] Mr. Maestri does not explain the operational reason why the proposed alternative route cannot be used for all of the additional traffic or, for that matter, why it cannot be used for all traffic proposed for this line segment.

NS is unwilling to do is to pay for the construction asserted to be necessary to make this alternative route viable.[4/]

Reduced to its essentials then, the NS approach to this transaction is a simple one. On the one hand, NS proposes a consolidation with Conrail that it says will provide it "net operating benefits [read "profits"] in a normal year of $553 million"[5/] On the other hand, NS proposes that the public either suffer the environmental degradation that would result from the consolidation or pay the cost of the steps necessary to eliminate that degradation.[6/]

BRL do not accept the "heads I win, tails you lose" bargain offered by NS. For the reasons stated herein, we request that the final environmental impact statement ("FEIS") recommend (and that the Board order) NS to undertake and fully fund the construction of the alternate route outlined by Mr. Maestri. We further request that the FEIS recommend (and the Board order) no increase in traffic over the Cleveland to Vermilion line segment.

I. THE DEIS PROPOSED MITIGATION

The recommended mitigation for BRL is as follows:

[4/] Mr. Maestri has estimated a cost of approximately $47 million for the construction package outlined in his letter. NS-67-P-00484.

[5/] CSX/NS-18 at 19.

[6/] Among the costs contemplated by NS is the suggestion that Lakewood close several grade crossings. DEIS, Volume 3B at OH-139. **This is not an action the Board can require Lakewood to take and Lakewood has advised NS on more than one occasion that it will not close its streets for the convenience of the railroad.**[6/]

> 20. NS shall continue to consult with local and county government agencies, the Ohio Department of Transportation, elected representatives from the west Cleveland suburbs and the City of Cleveland, and other appropriate parties to address concerns about train traffic increases on the Cleveland to Vermilion rail line segment (Nickel Plate Line). Specifically, NS shall meet with these parties to negotiate a mutually-acceptable binding agreement on the construction and funding allocation of NS's preliminary alternative routing plan to balance train traffic on the Cleveland to Vermilion rail line segment and the Lakeshore Line through Berea, and associated improvements that include new rail line connections, possible grade separations, upgrading warning devices at some highway/rail at-grade crossings, and highway/rail at-grade crossing closures. The preliminary mitigation plan developed by NS was recently submitted to SEA. SEA invites public comments on appropriate alternative mitigation that the Board could require in the event that the parties cannot reach a mutually-acceptable binding agreement prior to issuing the Final EIS.[1]

BRL respectfully submit that the quoted language does not constitute "recommended mitigation." Rather, as recognized in the final sentence, the DEIS contains no recommended mitigation in the hope that interested parties can reach agreement with NS. Failing that, the DEIS effectively proposes to "start from scratch" in the FEIS.

Given Board precedent, the approach taken by the DEIS is perilously close to a finding that information gathered to date does not require the imposition of any mandatory mitigation

---

[1] DEIS, Volume 4 at 7-19, Section 7.2.4, paragraph 20. The wording of the preliminary SEA recommendation in Volume 3B at OH-140 is slightly different, but the substance appears to be the same.

burden on NS. That is, in Finance Docket No. 32760[8], Decision No. 71 clarified that when the Board stated, in Decision No. 44, that it believed that the cost of environmental mitigation "should be shared", it meant to say that the final mitigation plan would include both "mandated" mitigation, "which the Board will require UP/SP to implement and entirely fund" and "alternative" mitigation which would "not be binding absent a voluntary agreement by the parties to share costs..."

Here, the DEIS discusses nothing other than "alternative" mitigation, thus leading to a concern, we trust unfounded, that no mandated mitigation is contemplated to address the "unique circumstances" created by the NS proposal for the Cleveland to Vermilion line segment. Such an approach, if taken in the FEIS, would be inconsistent with the law, with USDOT policy, and with STB policy as stated in the DEIS.

The ICCTA states that it is the policy of the United States Government, in regulating the railroad industry, "to operate transportation facilities and equipment without detriment to the public health and safety."[9] This policy cannot be implemented in this proceeding without mandating environmental mitigation measures.

---

[8] Union Pacific Corporation, Union Pacific Railroad Company, And Missouri Pacific Railroad Company--Control And Merger--Southern Pacific Rail Corporation, Southern Pacific Transportation Company, St. Louis Southwestern Railway Company, SPCSL Corp., And The Denver And Rio Grande Western Railroad Company.

[9] 49 U.S.C. § 10101(8).

USDOT policy is to reduce "social costs of environmental degradation" and to ensure that these social costs "are more accurately reflected in the price of transportation services."[10] This is particularly important where, as here, a regulated entity seeks Board authorization for a transaction that is designed to dramatically enhance its "bottom line." As noted supra, NS projects annual net operating benefits of $553 million as a result of this transaction. It would be inconsistent with USDOT policy to allow NS to do so while, at the same time, passing off the "social costs" of its transaction to the public.

Finally, there are only two circumstances in which the Board requires that the cost of environmental mitigation be shared. The first is when that mitigation is designed to remedy pre-existing environmental impacts.[11] The second is when the involved mitigation contemplates solutions that are more "far reaching" than needed to resolve the concerns rising directly from the railroad's proposal.[12] Neither of these circumstances is present here. The mitigation outlined by Mr. Maestri would not address pre-existing environmental impacts of NS operations through BRL in that it would not reduce the number of trains operating through BRL. Further, that mitigation is not, as discussed herein, more far reaching than necessary to mitigate

---

[10] United States Department of Transportation, National Freight Transportation Policy, 62 F.R. 785 (January 6, 1997).

[11] DEIS as ES-15.

[12] See F.D. 32760, Decision No. 71, supra.

the environmental damage resulting directly from the NS proposal to increase the number of trains operating through BRL by 153%.

The differences between the STB's analysis and the NS approach are telling. NS asserts that it has conducted a "preliminary financial analysis of the proposed alternative route [which] indicates that its cost far outweighs any economic benefits to NS, making implementation of this mitigation proposal unjustified without public funding."[13] Even assuming, arguendo, that NS actually has performed such an analysis,[14] the fact remains that a cost/benefit analysis which looks only at the benefits to the railroad cannot be dispositive. As explained supra, the rationale for environmental mitigation is not that the railroad will profit thereby. Rather, the rationale for environmental mitigation is that it is required to fulfill the STB's obligations under the ICCTA and NEPA.

II. THE DEIS ANALYSIS

A. Cumulative Impacts Have Been Ignored

While the "West Cleveland Suburbs, Ohio" have been identified as an "area of special concern" at the outset of the

---

[13] DEIS, Volume 2 at 196.

[14] BRL requested such analyses in their Interrogatory and Document Request No. 25 and NS provided no such document in its response. BRL again requested the documents referenced by Mr. Maestri on December 23, 1997. To date, NS has not responded. BRL note that the mitigation proposal offered by Mr. Maestri would give NS two routes into Cleveland from the west. Thus, this proposal may permit NS to institute directional operations, i.e. using one route for east bound trains and another route for west bound trains. If this is the case, NS would not be required to place trains on sidings, thus enhancing its operations.

DEIS[15], the remainder of the DEIS fails to address the cumulative environmental impacts on BRL. That is, while individual environmental components of the NS proposal, e.g. noise and air quality degradation, are discussed, albeit incorrectly, the cumulative impact of these components is ignored. In taking this approach, the DEIS implicitly rejects the logic of USDOT's October 21, 1997 Preliminary Comments.[16] In addressing highway-rail crossings, USDOT noted that a large increase[17] is projected for the "NS line through Lakewood, Ohio" and stated that "all of the crossings on [this segment] should be analyzed together as a corridor and mitigation measures designed to reduce risk along entire segments rather than on a crossing-by-crossing basis."[18]

BRL join USDOT in advocating a cumulative impacts approach in the FEIS. While substantial time and effort must, of necessity, be expended in an examination of the "trees", the Board should not lose sight of the "forest", i.e. the total environmental and socio-economic impact of a dramatic increase in trains on BRL. By way of example of these cumulative impacts, BRL would reference Volume 5A of the DEIS. Attachment E-3, County Total Emissions Increases for Threshold Activities, in

---

[15] DEIS, Executive Summary, ES-12.

[16] DOT-3.

[17] USDOT incorrectly stated that the increase would be 13 trains per day. As noted supra, the actual claimed increase over the base period is 20.6 trains per day.

[18] USDOT-3 at 24.

Decreasing Order of Total NOx (Prior to Netting Analysis), reveals that the seven counties that will experience the highest emissions increases are all located in Ohio. Cuyahoga County, in which BRL are located, has the unenviable distinction of being ranked #1. In fact, the DEIS finds that NOx, CO, VOC, SO2, and PM emission increases in Cuyahoga County would be 39% greater than in Lorain, Ohio, which has the #2 spot in the list.[19/]

At the same time, Attachment F-1, Rail Line Segments that Meet STB Requirements for the Noise Analysis, establishes that the proposed traffic increases for the Cleveland-Vermilion line segment would result in greater noise impacts than would be experienced on any other line segment. According to the DEIS, in the post acquisition environment, there would be 4,439 receptors on this line segment[20/], 83% higher than on any other line segment. And, the data in Attachment F-1 reveals that the increase in receptors on this line segment, i.e. 2,245 is greater

---

[19/] BRL request clarification of the DEIS air quality analysis in the FEIS. We note for example that Attachment E-3 states that the NOx increase for Cuyahoga County would be 1,272 tons/year, a figure derived from Attachment E-2 at 9. However, the Attachment E-2 NOx totals are substantially smaller than the totals in Attachment E-4. By way of example, Attachment E-2 at 8 finds the NOx increase for the Vermilion to Cleveland line segment to be 39.66 tons per year. In contrast, Attachment E-4 at 9 finds the NOx increase for the same line segment to be 111.76 tons per year. The FEIS must resolve this apparent discrepancy.

[20/] As noted infra, the DEIS has significantly undercounted the number of sensitive receptors on the Cleveland to Vermilion line segment.

than the total number of post-acquisition receptors on all but one line segment studied for the DEIS.[21]

The point here is a basic one. The three standards that the Board considers in designing environmental mitigation are whether the proposed condition is "reasonable", whether it is "directly related to the action proposed for approval", and whether it is "supported by the information developed during the environmental analysis."[22] Just as USDOT recognizes that these standards cannot be met simply by analyzing individual grade crossings, these standards cannot be met simply by viewing individual impacts, e.g. air quality or noise. Rather, it is the total impact of the NS proposal on BRL that must determine whether a mitigation proposal meets the Board's three criteria.

Prior to turning to an analysis of whether the DEIS accurately reflects the nature of the "trees", let us consider what the "forest" looks like using the DEIS data for the areas of particular concern to BRL.

1) Safety, Highway/rail at-grade crossings: The data in Attachment B-7 establishes a clear rationale for USDOT's call to examine cumulative impacts. That is, in unexplained contrast to its approach of considering "freight rail accidents" on a line

---

[21] The DEIS fails to note the reasons for this fact, i.e. (1) the BRL communities are densely populated and (2) there are 36 urseparated grade crossings in BRL over a distance of only 9.68 miles, approximately one crossing per quarter mile. NS response to BRL-1, requests 4 and 5. **In Lakewood, there are 27 grade crossings in 2.48 miles.** NS-67-P-02406. **This is one grade crossing every 485 feet.**

[22] DEIS, ES-14.

segment basis,[23] the DEIS examined "highway/rail at-grade crossing safety" on a crossing by crossing basis and considered mitigation for certain crossings "if the accident frequency increased by one additional accident every 100 years."[24] This was error.

Volume 3B, Table 5-OH-8 establishes that between West 117th Street, the border between Cleveland and Lakewood[25], and Bradley Road, the western-most crossing considered in Bay Village, the Post Acquisition annual accident frequency would be 0.5824 greater than the Pre-Acquisition annual accident figure. In other words, **the DEIS predicts that BRL will experience one additional accident at a grade crossing every two years as a result of the NS proposal**. The fact that these accidents may occur at any one of the 36 contemplated crossings in BRL, rather than at a single pre-identified crossing, is of little comfort to the citizens of BRL.[26] This additional accident every two years on trackage through BRL that has been described by a Norfolk Southern manager of grade crossing safety as **"one of the most**

---

[23] DEIS, Volume 1 at 3-6 and Volume 3B at OH-14.

[24] DEIS at ES-18 and Volume 1 at 3-10.

[25] The border actually is in the middle of West 117th Street.

[26] The conclusion to the contrary in DEIS, Volume 3B at OH-20, has relevance only to the question as to whether the NS proposal gives rise to a need for grade separations at individual crossings. It does not address the point of concern to BRL, whether the combined impact of environmental degradation justifies requiring NS to pay for the rerouting plan it has devised.

dangerous in our 15,000 miles of track"[27] is part of the cost of the NS proposal to obtain "net operating benefits in a normal year of $553 million."

2) Hazmat accidents: While the DEIS predicts that post-acquisition interval between mainline hazardous materials accidents will remain substantial, Attachment B-1, it also predicts a 252.4% increase in hazmat releases on the Cleveland to Vermilion line segment, id.[28] This also is part of the cost of the NS proposal to obtain "net operating benefits in a normal year of $553 million."

3) Highway/rail at-grade crossing traffic delay: The data in the Supplemental Errata, Table 5-OH-11 (Revised), establish that, as a result of the proposed increases in NS traffic volumes, the average delay per vehicle at the five crossings considered would increase by 163%. Even assuming, arguendo, that the resulting average delay does not leave BRL with a "level of

---

[27] NS-67-P-00739. BRL comment later in this document on the DEIS use of level of service data in order to determine the need for grade separations. As we discuss, the approach taken by the DEIS is to place a heavy weight on pre-existing conditions. If that approach is to be taken, then the FEIS must give heavy weight to the existing level of danger resulting from NS operations within BRL. As explained in a December 19, 1991 NS memorandum, "Train traffic thru [sic] Lakewood can be at various speeds and the majority of the present warning systems are not of the constant warning time type. **Train/auto accidents are not uncommon.**" NS-67-P-01705.

[28] Attachment B-5 identifies the Cleveland-Vermilion line segment as a "new major key route" for hazardous materials. Volume 3B, Table 5-OH-10, finds that NS will increase its annual car loads of hazmats from 9,000 to 32,000 on this line segment.

service" poor enough to warrant mitigation when considered alone,[29/] the fact remains that this increase in average delay per vehicle also is part of the cost of the NS proposal to obtain "net operating benefits in a normal year of $553 million."

4) Air Quality: As explained above, Cuyahoga County, Ohio, in which BRL are located, would experience substantially higher emissions increases than any other county considered in the DEIS. Volume 3B, Table 5-OH-16, finds that these increases exceed the emissions screening level "after netting" and further finds that these emissions would exceed 1% of total county emissions for NOx. Even assuming, arguendo, that this "significant"[30/] increase is not sufficient, standing alone, to warrant environmental mitigation[31/], this increase also is part of the cost of the NS proposal to obtain "net operating benefits in a normal year of $553 million."

5) Noise: As also explained above, the woefully inadequate DEIS noise analysis (see infra) finds that the number of receptors on the Cleveland-Vermilion line segment would be 4,439. Even assuming, arguendo, that this number is not understated, it is still 83% higher than on any other line segment. Each of these "receptors", a rather bland term including homes, schools, and hospitals, would experience railroad noise 34.1 times per

---

[29/] The description of the DEIS standard is found in Volume 1 at 3-19. A discussion of the major errors in the DEIS LOS computations is found infra.

[30/] DEIS, Volume 3B at OH-50.

[31/] DEIS, ES-22-23.

day. This is once every 42 minutes, 24 hours per day, seven days per week, 365 days per year.

The DEIS suggests that, as a result of a pending rulemaking before the Federal Railroad Administration, the Board should not propose specific mitigation for the railroad horn noise impacts of the NS proposal.[32] This is a non-sequitur in light of the Board's ability to prevent these impacts through methods that are not contrary to anything that FRA could oppose, e.g. rerouting of traffic. This noise increase, which can be mitigated through the additional construction suggested by Mr. Maestri, is part of the cost of the NS proposal to obtain "net operating benefits in a normal year of $553 million" and must be considered in determining whether proposed mitigation is reasonable.

6) Pedestrian Safety: "SEA did not separately consider potential pedestrian impacts."[33] BRL cannot ignore pedestrian safety and see no reason why the FEIS should do so. As reported in BRL-2 and BRL-3, children attending 22 elementary and middle schools in BRL cross the tracks each day. The additional risk to these children is part of the cost of the NS proposal to obtain "net operating benefits in a normal year of $553 million."

7) Emergency Response: The DEIS found two ways to evaluate the potential effect of the Conrail acquisition on emergency vehicle response times, i.e. crossing delay per stopped vehicle

---

[32] DEIS, ES-23; Volume 3A at 5-9; and Volume 3B at OH-71.

[33] DEIS, Volume 1 at 4-13.

and total daily crossing blockage time.[34] However, the DEIS concludes that "it is impossible to predict actual delays that would occur as a result of Acquisition-related changes in train traffic"[35] and further states that train traffic "potentially [affects] emergency response time."[36]

BRL disagree. There is nothing "potential" about the impact of trains on emergency response time. It is fact. BRL-2 establishes that emergency service providers are blocked by NS trains approximately 253 times per year under current conditions. Applying the percentage increase in trains projected by NS, this would rise to 640 emergency service delays each year following the Conrail acquisition. This is almost two emergency vehicles per day that would be blocked by trains. The inability of emergency services vehicles to reach victims, including those needing immediate attention for cardiac or other life threatening accidents or illnesses, in a timely manner also is part of the cost of the NS proposal to obtain "net operating benefits in a normal year of $553 million."

What then can be said about the cumulative impacts (as determined by the DEIS) of the NS proposal on BRL and its citizens? The DEIS provides no such analysis and BRL are unaware of any method that would demonstrate that mitigation would not be "reasonable" under the circumstances identified by the DEIS as

---

[34] DEIS, Volume 1 at 3-18.

[35] DEIS, Volume 1 at 4-44.

[36] DEIS, Volume 3B at OH-134.

augmented by the information provided in BRL-2 and BRL-3. One additional railroad accident every two years, a 163% increase in average delay per vehicle, higher emissions increases than any other county, 4,439 adversely impacted sensitive noise receptors, and two emergency vehicle delays per day must, by any standard, be considered a "reasonable" justification for environmental mitigation.[37/]

BRL do not gainsay that $47 million, the NS cost estimate of its mitigation proposal to eliminate the environmental damage to BRL, is a substantial sum. But, even in the unlikely event that the entire cost of this mitigation were to be expensed in one year, it would be only 8% of that year's "net operating benefits in a normal year of $553 million." If this cost is amortized over only ten years, the minimum one would expect, it would be only 0.8% of those years' "net operating benefits." Again, this would be a reasonable expenditure even if the data presented in the DEIS fully reflected the environmental harms to BRL resulting from the NS proposal. However, as will be demonstrated in the next section of these comments, that is not the case.

B. The DEIS Understates Environmental Impacts

While the DEIS asserts that SEA has "reviewed and verified" the data submitted by NS,[38/] a review of the DEIS establishes that the data used to perform analyses of each of the matters

---

[37/] As discussed infra, the marketplace already is responding to the environmental harms NS proposed for the BRL communities. Houses near the tracks are not selling.

[38/] DEIS, Volume 3A at 5-2.

considered are incorrect. BRL request that the FEIS correct these errors in the manners discussed below.

1) Train Speeds: In Volume 5A at A-1, the first data element listed for verification is train speeds. According to Section A.4.2, the DEIS utilized two different speeds in its analysis. For purposes of its safety analysis, the DEIS used the maximum operating speed. This maximum speed also was used in the DEIS calculations of Average Delay Per Vehicle.[39] For purposes of air quality analysis, the DEIS used what it described as "typical freight train speed." However, this speed was deemed equal to the maximum operating speed when the maximum operating speed is 35 mph and below.[40]

The approach taken by the DEIS is in serious error when applied to BRL. We note at the outset that NS has no data as to its average speeds in BRL. According to a December 8, 1997 letter from counsel for NS to BRL, "NS has not calculated average speeds for these trains. However, NS notes that average speeds are never higher than allowed by the FRA for the class of track over which NS operates."

At least part of the reason that NS does not operate at its maximum allowable mainline track speed through BRL is that, also according to the December 8th letter, 20% of its trains utilize a

---

[39] See, e.g. Table 5-OH-11.

[40] The maximum speed at the easternmost 31 grade separations in BRL (36 including 117th Street) is 35 mph.

siding within BRL.[41] The maximum speed entering, operating through, and leaving the siding is 25 mph.[42]

A more important reason that NS does not operate at anywhere near its maximum speed in BRL is the inherent danger of operating through communities with so many grade crossings over such a short distance. As noted supra, in Lakewood there is one grade crossing every 485 feet. Moreover, because of track curves and the number of buildings located close to the tracks, NS engineers are unable to see many of the crossings until they are close to them and thus they run the trains far below the maximum speed. As recounted in BRL-2 at 9, a review of police accident reports in Lakewood for railroad/street vehicle accidents since 1992 revealed an average speed for the NS trains of 31 mph. The Lakewood police confirmed this figure by using a radar gun to determine the average speed of NS trains during the period January 22 through January 27, 1998. The average speed at Bunts Road in Lakewood during that period was 30.6 mph, substantially lower than the 35 mph speed used by the DEIS.

Similarly, the Bay Village police used radar guns to determine the speed of NS trains during the period January 22 through January 27, 1998. The average speed at Dover Road was 38.9 mph, substantially lower than the 50 mph speed used in the DEIS.

---

[41] This siding has been identified as Clague Siding, located between MP B 193.9 and MP B 197.0. NS-32 at 6.

[42] NS-32, response to interrogatory 1(d).

Rocky River police also used radar guns to determine the speed of NS trains during the period January 22 and January 26, 1998. The average speed at the Elmwood crossing was only 23 mph.

Even these figures overstate the "average" speed of NS trains during the course of a year in that they do not include "speed" data for trains that stop prior to or in the middle of a crossing. Just such an event happened on January 22nd. An eastbound NS train entered the view of the police at 4:30 p.m. and was initially clocked at 34 mph. However, it started to slow at 4:32 p.m. and then stopped. When it finally cleared the Elmwood crossing, it was traveling at only 8 mph.

In light of these facts, several changes are required in the FEIS. First, the FEIS should premise its speed calculations on the results of the BRL police analysis, i.e. average speeds of 30.6 mph in Lakewood, 23.0 mph in Rocky River, and 38.8 mph in Bay Village.

Second, the FEIS should discount these speeds to reflect situations in which NS trains stop as they move through BRL.

Third, the FEIS should determine whether NS post-acquisition operations would increase the percentage of trains utilizing Clague Siding in Rocky River as a result of increased density on the line segment. If this is the case, then the average speeds shown above for Rocky River should be adjusted downward.

Fourth, the fact that approximately 20% of NS trains over this line segment utilize Clague Siding must be reflected in the FEIS in two regards. First, Clague Siding crosses Columbia Road

at grade, thus requiring the recalculation of impacts on Columbia Road traffic to reflect the use of the siding. Second, locomotives stopped at the siding are not normally shut down.[43] In virtually all cases, they remain in operation as the train sits on the siding for one hour, two hours, and sometimes longer periods, thus giving rise to air and noise pollution not contemplated by the DEIS.

2) Trains Per Day: The second data element listed in Volume 5A at A-1 is trains per day. BRL take it as a given that any train count projection in a consolidation proceeding will be, at best, an estimate. Post-consolidation business levels and experience will determine the precise number of trains operating over the Cleveland-Vermilion line segment. Notwithstanding this fact, the FEIS must utilize a number of trains in order to calculate estimated environmental impacts of various types. However, NS has not provided any data to support the train count upon which the DEIS relies.

At the outset, BRL note that NS already has revised its train counts once in this proceeding. See, CSX/NS-54, the August 28, 1997 document which reduced the proposed train count over the Cleveland to Vermilion line segment from 37.8 trains per day to 34.1 trains per day.

Of greater importance, NS cannot "verify" its train count for this line segment. The October 30, 1997, letter from counsel

---

[43] This information was provided in a December 12, 1997 letter from counsel for NS.

for NS to BRL admitted that "Norfolk Southern does not have a list identifying each train that is projected to travel over this line segment, and would have to perform a special study to make such an identification." If NS does not have such a list, the DEIS could not have verified the NS projection.

BRL request that the FEIS reexamine the train count issue and provide all data used to "verify" the number of trains expected to operate over the Cleveland to Vermilion line segment. If NS continues in its inability to identify these trains, the FEIS should conclude that it is unable to calculate the environmental impacts of the Conrail acquisition on BRL.

3) Noise: Following its erroneous conclusion that locomotive noise should not be considered in designing mitigation, the DEIS considered "wayside noise effect."[44/] Rail line segments were deemed eligible for noise mitigation "for noise sensitive receptors exposed to at least 70 dBA Ldn and an increase of at least 5 dBA Ldn." Id.

The DEIS wayside noise effect analysis is entirely incorrect. First, as noted above, the DEIS ignores all of the noise generated by the 20% of NS trains that idle on Clague Siding. That is, NS admits that, in the post acquisition environment approximately seven of its trains will sit on Clague Siding each day for an unknown amount of time with the locomotives running. The FEIS must perform an analysis of the noise impact on the sensitive receptors of this siding noise.

[44/] DEIS, Volume 3B at OH-74 and Volume 5A, Appendix F.

Second, the DEIS analysis errs in that it omits any consideration of the number of "sensitive receptors" in the determination of whether mitigation is required. The significance of this is established, by way of example, at page 2 of Attachment F-1. There, the Oak Harbor to Bellevue line segment is deemed eligible for noise mitigation because its change in dBA is 5.5 (resulting from a 253% increase in the number of trains). However, there are only 513 sensitive receptors on that segment. In contrast, while the change in dBA is "only" 4.0 for the Cleveland to Vermilion segment (resulting from an increase of "only" 153% in the number of trains), the number of sensitive receptors found by the DEIS on this line segment is 4,439.[45]

Stated another way, even using the understated DEIS numbers, approximately nine times as many sensitive receptors (read "people" living in predominantly residential areas) would be affected by increased noise on the Cleveland to Vermilion line segment. The fact that the percentage increase in noise level is less than would be experienced on another line segment (solely because of a smaller percentage increase in the number of trains) should not be dispositive when a vastly greater number of people

---

[45] BRL maintain that the DEIS count of sensitive receptors is substantially understated. The enclosed verified statements of Kevin F. Beirne, Brian F. Moran, and James M. Sears identify 1,338 sensitive receptors in Rocky River, 3,944 sensitive receptors in Lakewood, and 1,920 sensitive receptors in Bay Village in the post-acquisition case. **Thus, these three communities alone have 7,202 sensitive receptors, 62% more than the DEIS found for the entire Cleveland to Vermilion line segment.**

would be adversely impacted by unacceptable noise levels. Mitigation is required.

Consider also the finding of the DEIS "that wheel/rail noise from train operations may last three to four minutes per location..."[46] This means that if NS increases its trains by 20.6 to a total of 34.1 trains per day, the 4,439 sensitive receptors on the Cleveland to Vermilion line segment would be subject to this noise between 1.7 and 2.3 hours per day, seven days per week, 365 days per year.

This is a greater noise frequency than would be experienced on the Oak Harbor to Bellevue line segment (resulting from the fact that the total number of trains on the Oak Harbor to Belleveue line segment would be less than on the Cleveland to Vermilion line segment). And, the Cleveland to Vermilion line segment would experience a greater increase in number of trains than would be experienced on the Oak Harbor to Bellevue line segment (20.6 trains per day as compared to 19.5 trains per day). Accordingly, the DEIS mitigation proposals are not based on total noise, total railroad noise impacts, or the total increase in the number of trains. Rather, those proposals are premised on nothing more than the percentage increase in trains, an unreasonable basis on which to determine the need for mitigation. This error should be corrected in the FEIS in the manner suggested herein.

---

[46] DEIS, Volume 3B at OH-137.

Third, the above-noted "70 dBA Ldn and 5 dBA Ldn increase" standard also is arbitrary and capricious in that it ignores the standards adopted by other federal agencies. As explained in the verified statement of Edward J. Walter, Jr., the Environmental Protection Agency and the Department of Housing and Urban Development (HUD) use 55 decibels as their goal for outdoor noise in residential areas. Outdoor noise above 65 dB but not exceeding 75 dB is "normally unacceptable" for HUD assisted development. **Outdoor noise above 75 dB is "unacceptable" to HUD.**

In light of the clear HUD standard for acceptable noise levels, the DEIS standard for considering the significance of noise increases cannot be justified. If noise levels will increase to a level deemed unacceptable by HUD as a result of increased train movements, it makes no sense to say that this level of noise does not require mitigation simply because the increase in noise is less than approximately 320%, i.e. a 5 dB increase. Accordingly, BRL request that the FEIS abandon the 70 dBA Ldn/5 dBA Ldn increase standard in favor of one that is consistent with HUD's approach. That is, if residential neighborhood noise would increase to a level above the 75 dBA HUD standard as a result of the Conrail acquisition, mitigation should be mandated to permit the neighborhood to remain below the 75 dBA level.

Without such a standard, the quality of life of the residents of "sensitive receptors" would be severely impacted and their economic losses also would be great. That is, as Mr.

Walter explains, not only would unacceptable noise levels prohibit HUD funding for new development, but such noise levels also are recognized by HUD to be "a marketability factor" for existing facilities. That is, HUD considers this factor in determining the amount of insurance or other assistance that may be given.

HUD is not alone in viewing the noise NS proposes to visit on the BRL communities as a "marketability factor." Prospective purchasers also consider noise in determining the value of housing. As recently reported in the Ohio Realtor, a Lakewood Realtor has stated that "Houses next to the tracks are virtually unsellable. I have seen four listings in Lakewood that are directly on the tracks that have sold for substantially less dollars."

In brief, increased noise translates to lower property values, another cost proposed to be borne by the BRL communities to allow NS to obtain "net operating benefits in a normal year of $553 million."

These are not unfounded concerns of the thousands of citizens of Lakewood, Rocky River and Bay Village who reside in the vicinity of the NS tracks. As reflected in Mr. Walter's exhibits EJW-2 and EJW-3, **with 34.1 trains per day, the noise levels at the 100 feet distance will be above 75 dB, i.e. "unacceptable" at eight of the nine tested locations.** In fact, noise will, on average, be at the 75 dB level 164 feet from the tracks. The 65 dB level, i.e. the bottom end of the "normally

unacceptable" level, would not be reached for hundreds of feet from the NS tracks.

To say that these levels do not give rise to the need for mitigation because the noise level has not increased by 320%, i.e. an increase of 5 dB, is flatly absurd. If an increase in pre-existing levels from 65 dB to 70 dB is worthy of mitigation, a locale with a pre-existing dB level of between 70 and 75 should not have to experience a 320% increase in noise in order to justify mitigation. This is precisely the case in the BRL communities. The average 100' Ldn at 13.5 trains per day is 72.6. At 34.1 trains per day, the average 100' Ldn would be 76.6, well above the HUD level of "unacceptable."

There are two fundamental points here. First, the 70 dba/5 dBA Ldn increase standard is meritless. If a quantitative approach is to be used, the HUD standards should be adopted. Assuming, arguendo, that any reason exists not to adopt the HUD standards, then the Ldn increase required for mitigation should decline as the pre-existing 100' Ldn figure increases in order to reflect the severity of the actual noise increase.

Second, under any reasonable standard, the 100' Ldn levels and the number of sensitive receptors within the 65 db contour line in the BRL communities which would result from an increase in the number of trains per day to 34.1 demand mitigation. As computed by Mr. Walter, the 100' Ldn levels range from a "low" of 70.6 to a high of 81.1 and average 76.6. Given the thousands of

people that would be faced with unacceptable noise levels, NS should be ordered to take its additional trains elsewhere.

4) Air Quality: As explained by the verified statement of David H. Minott, the DEIS air quality analysis ignores the fact that projected CO impacts resulting from motor vehicles queued at grade crossings exceed the "significant impact level" by substantial amounts at Hird Avenue in Lakewood. In light of Mr. Minott's findings, NS should be required to perform a refined air-quality modeling assessment for motor vehicle queuing at all BRL grade crossings. The results of this analysis, verified by the Board, should be included in the FEIS.

5) Maximum Delay For At-Grade Crossings And Its Impact On Emergency Services: As noted supra, the train speed issue cuts across a number of the DEIS analyses. One affected calculation is the purported "estimated maximum delay (in minutes) for at-grade roadway crossings" found in DEIS, Volume 3B, Table 5-OH-53. It should be clear that the figures shown in this table cannot possibly be the "maximum" delay at the BRL grade crossings with the highest ADTs. Rather, since this table assumes that NS will operate each one of its trains at the maximum authorized speed, Table 5-OH-53 must be relabeled as the estimated "minimum" delay at at-grade crossings.

The maximum delay at at-grade crossings should be computed to reflect the likely average speeds as discussed above and the correct "time in minutes for gate closing and opening prior to and after the passage of the train", discussed infra. By way of

example, if a value of 30.1 mph is used for speed through Lakewood and a value of 0.66 is used for gate up and down time, the daily blockage caused by 34.1 trains would be 86.87 minutes, 20% greater than shown in Table 5-OH-53 for Lakewood locations.

We note in this regard that the DEIS has failed to recognize that changes in the total blocked crossing time per day are a more than reasonable tool to estimate changes in the number of emergency vehicles that would be delayed every year in BRL if NS is allowed to operate 34.1 trains per day. That is, in Volume 3B at OH-137, the DEIS states: "SEA has not predicted frequencies of delay for emergency response vehicles, due to the inherent uncertainties and obvious localized issues such as locations of responding emergency vehicles." BRL submit that this statement is incorrect and that our contention that the proposed increase in NS traffic would result in over 600 delays to emergency services vehicles annually can be verified easily.

Based on the data in BRL-2, we know that the Lakewood, Bay Village, and Rocky River police, fire, and EMS services are blocked by trains at least 253 times per year under current conditions. If total blocked crossing time per day with 34.1 trains per day is 258% of total blocked crossing time per day with 13.5 trains per day, as computed by Table 5-OH-53, then it must be assumed that delays to emergency vehicles will increase by roughly the same percentage. Stated another way, the FEIS must assume that there would be approximately 653 emergency vehicle delays per year if NS operates 34.1 trains per day. BRL

submit that this is an unacceptable result and requires mitigation.

6) Roadway Crossing Delay: As described in DEIS Volume 1 at 3-19, the DEIS uses a "level of service" ("LOS") analysis to measure the significance of delays to highway traffic resulting from increased rail traffic. Simply stated, the DEIS does not consider the impact of additional rail traffic on highway traffic to be significant unless it results "in (1) a post-Acquisition level of service E and F regardless of the pre-Acquisition condition, or (2) a reduction from pre-Acquisition level-of-service C or better to a post-Acquisition level of service D."[47/]

BRL note at the outset that the DEIS LOS analysis reasonably may be characterized as "a straw that broke the camel's back" approach. That is, in all but the most extreme situations, even if the impact of increased rail traffic on street traffic would be severe, it would not give rise to a mitigation recommendation unless the pre-existing condition was poor at best. In fact, the only grade crossing for which a grade separation is recommended by the Supplemental Errata has a pre-acquisition LOS of D.

This approach to traffic mitigation differs markedly from the above-described approach to noise mitigation. In the noise context, a finding that mitigation is necessary is actually less likely if pre-acquisition noise levels are high. That is, a 5 db

---

[47/] Note that this second option for relief does not appear in Volume 5A at C-15. Thus, it is not clear which of these two sets of criteria were used by the DEIS. This issue should be clarified in the FEIS.

increase is less likely if the pre-acquisition noise level is 70 db than if it is 65 db. In contrast, in the context of viewing traffic impacts, unless the pre-acquisition LOS is high, the post-acquisition LOS could not rise to a level at which a grade separation is considered necessary.

BRL urge reconsideration of these inconsistent approaches in the FEIS. The key issues in designing environmental mitigation are that the mitigation "must be reasonable" and "must be directly related to the impact caused by the Acquisition."[48/] Accordingly, if grade separations are to be ordered because a currently bad LOS would be made worse by the Conrail acquisition, noise mitigation must be ordered if currently bad noise levels would be made worse by the Conrail acquisition.

A review of the Supplemental Errata, Table 5-OH-11 (Revised), establishes part of the basis for BRL's concern with vehicle delays. According to the DEIS analysis, the "average delay per vehicle", i.e. the numerical equivalent of the LOS grade, would increase by 163% at the five BRL crossings considered, West 117 St, Bunts Rd, Columbia Rd, Dover Center Rd, and Bradley Rd, as a result of the Conrail acquisition. Even assuming, arguendo, that the average delay per vehicle has been calculated accurately, but see infra, this is a substantial increase in average vehicle delay. And yet, because of its failure to consider cumulative impacts, the DEIS does not consider whether this increase in average vehicle delay should

---

[48/] DEIS, Volume 1 at 3-3.

serve as part of the justification for environmental mitigation. This is error. The purpose of environmental mitigation should be to identify not just substantial individual environmental degradations, but to identify all environmental degradations and to return communities, as closely as possible, to the pre-existing condition.

In any event, the "pre" and "post" "crossing delay per stopped vehicle" and "average delay per vehicle" must still be calculated accurately. And, it is clear that the figures presented in Table 5-OH-11 (Revised) are not accurate for the following reasons.

First, as discussed previously, the DEIS has erred in utilizing the maximum allowed speed rather than a reasonable estimate of an average speed. Reducing the speed used in the calculations to the average speed of the trains is necessary to arrive at accurate crossing delay and average delay data.

Second, as also discussed previously, the DEIS has erred in accepting a post-acquisition trains per day figure that NS has not been able to verify.

Third, in computing the "blocked crossing time per train, another of the components of both the crossing delay and the average delay, the DEIS utilized an understated, i.e. 0.50 minutes, constant to reflect the "time in minutes for gate closing and opening prior to and after the passage of the train."[49] According to the October 30, 1997 letter from counsel

---

[49] DEIS, Volume 5A at C-11.

for NS to BRL, NS gates "begin their downward motion after a train has been detected and the gate delay time (no less than three (3) seconds after activation of the warning devices) has expired. The time in question may vary from 22 seconds to 27 seconds prior to the arrival of a train at the crossing." The December 8, 1997 letter from counsel for NS to BRL clarified that the above-noted "three seconds is in addition to the 22 to 27 second variance." In other words, the "gate down time" will range from 25 to 30 seconds for an approximate average of 27.5 seconds.

Also according to NS, its "gates are electrically programmed to raise in not more than twelve (12) seconds after a train has cleared the crossing circuit."[50/]

In brief, the actual NS "time in minutes for gate closing and opening prior to and after the passage of the train" averages 39.5 seconds (27.5 + 12). Accordingly, 0.66 should be substituted for 0.50 in the FEIS formula.

III. CONCLUSION AND REQUEST FOR MITIGATION

As detailed hereinabove, the DEIS, notwithstanding errors that substantially understate environmental impacts, has confirmed BRL's initial view that the Norfolk Southern proposal to dramatically increase traffic on the Cleveland to Vermilion line segment would result in environmental degradation that must be mitigated. When the environmental impacts of this transaction are considered individually, they are severe. When they are

---

[50/] NS-32, response 6(b).

considered in the aggregate, they amount to nothing less than an assault on quality of life.

BRL have been advised that other parties representing Ohio interests will be presenting a mitigation proposal to the Board that would address the concerns, not only of BRL, but of other Ohio locales, including Cleveland. If such a mitigation proposal were to be adopted by the Board, BRL would, of course, be entirely supportive.

However, if, for any reason, a "global" solution cannot be found that would resolve the concerns of the Greater Cleveland area, BRL believe that the only mitigation step that will completely eliminate the harms of the NS proposal to BRL is adoption of the mitigation plan outlined by Mr. Maestri on November 25, 1997.[51] Following a recalculation of the

---

[51] For purposes of clarity, BRL also wish to review other mitigation suggestions, including those contained in BRL-2. We adhere to our view that (1) the best mitigation that SEA can recommend is a condition limiting NS traffic over the Cleveland to Vermilion line segment to the Base Case level; and (2) SEA should recommend that the Board retain jurisdiction over this proceeding for purposes of expanding environmental mitigation should the acquiring railroads' operations be significantly different than those contemplated in the FEIS. At the least, NS should be required to (1) install gates and lights at all grade crossings in BRL; (2) pay for the construction of a new Fire/EMS station in Rocky River north of the tracks (see the Supplemental Verified Statement of James R. Linden); (3) replace the Clague Siding with a new siding west of BRL; (4) repair the bridge located to the west of the Westlake Hotel; and (5) follow the best practices permitted by the Federal Railroad Administration for noise abatement following completion of FRA's ongoing study. Given that NS is not operating at its maximum speed limit today, we see no benefit to expenditures to increase that speed limit. Neither do we see a benefit to improved communications between NS and emergency services providers unless those improvements can be fully integrated into existing computer dispatching programs. We

(continued...)

environmental data as requested herein, the FEIS should recommend, and the Board should order, NS to implement that plan at its sole cost at the earliest practicable date.

In no event should the FEIS adopt the "consultation" approach found in the DEIS. That approach, which places all bargaining power in the hands of NS, constitutes an abdication of the STB's responsibilities under the ICCTA and NEPA and will do nothing to mitigate the environmental damage NS proposes.

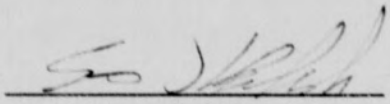
This is not to say that BRL are unwilling to enter into discussions with NS and others in order to find a mutually acceptable global solution or to use our good offices to assist NS in its effort to secure funding for elements of its mitigation proposal that would be of benefit to our neighbors, e.g. the proposed grade separations in Berea and Olmsted Falls. However, the fact remains that it is NS that is proposing this transaction and it is NS that will enjoy "net operating benefits in a normal year of $553 million." If, for any reason, public funding is not available to assist NS in these efforts, it is NS that should

---

[51] (...continued)
have serious questions as to whether new grade separations are feasible within BRL. However, if a "global" solution is not found, and if the Maestri solution is not mandated, BRL recommend that NS be required to fund studies to determine whether grade separations are feasible and be required to fully fund grade separations where feasible in BRL.

bear the cost. The citizens of Lakewood, Bay Village, and Rocky River should not be held hostage by NS.

Respectfully submitted,



Sara J. Fagnilli
Director of Law
City of Lakewood
12650 Detroit Avenue
Lakewood, Ohio 44107
Tel: (216) 529-6034
Fax: (216) 228-2514

Steven J. Kalish
McCarthy, Sweeney
& Harkaway, P.C.
Suite 1105
1750 Pennsylvania Ave., N.W.
Washington, D.C. 20006
Tel: (202) 393-5710
Fax: (202) 393-5721

Gary A. Ebert
Director of Law
City of Bay Village
350 Dover Center Road
Bay Village, Ohio 44140
Tel: (216) 899-3427
Fax: (216) 871-5751

Attorneys for:
City of Bay Village
City of Rocky River
City of Lakewood

David J. Matty
Director of Law
City of Rocky River
Rademaker, Matty, McClelland & Greve
Suite 1775
55 Public Square
Cleveland, Ohio 44113
Tel: (216) 621-6570
Fax: (216) 621-1127

Dated: February 2, 1998

G:\brl\brief.fat

VERIFIED
STATEMENTS

SUPPLEMENTAL VERIFIED STATEMENT
OF
KEVIN F. BEIRNE

My name is Kevin F. Beirne, Building Commissioner, City of Rocky River, Rocky River, Ohio. I previously submitted a verified statement consisting of two written pages and Exhibits KFB-1 and KFB-2. That statement was verified by me to be true on October 6, 1997. I wish to supplement my previous statement at this time.

Since then, revised data has been collected regarding the number of sensitive receptors within the Pre- and Post-Acquisition 65 dBA L_{dn} noise contour based on the information collected by Dr. Edward J. Walter & Associates regarding acquisition noise impact (i.e. the areas exposed to an average noise level of 65 dB, L_{dn}) on the City of Rocky River. The methodology utilized by Edward Walter, Jr. to obtain noise contour distances in feet is set forth in his Verified Statement and summarized in Exhibit EJW-2.

Three locations were monitored within the City of Rocky River, Normandy Manor, Elmwood Park, and the Westlake Hotel. Based upon a Pre-Acquisition average of 13.5 trains per day, distances of 145, 450, and 410 feet respectively were obtained. These figures increased to 335, 920, and 850 feet respectively assuming an Applicant estimated Post-Acquisition increase to 34.1 trains per day.

Pre-Acquisition points were plotted in both directions (North and South) of the tracks and connected by a straight line as demonstrated within Figure F-3, Page F-12 in the DEIS. The number of sensitive receptors within that area were counted. Nine hundred and thirty (930) sensitive receptors were located within the Base Case area,

including one nursing home. No churches or schools are located within the Base Case noise contour.

The Post-Acquisition numbers obtained by Edward Walter & Associates were also plotted and connected via a straight line in both directions (North and South) of the tracks. One thousand three hundred and thirty eight (1338) sensitive receptors were counted within the Post-Acquisition area including three schools, one church, and one nursing home. A comparison of the Base Case and Post-Acquisition sensitive receptor figures reveals that an additional four hundred and eight (408) sensitive receptors will be affected if the Acquisition at issue is approved as proposed. This represents a net increase in the number of sensitive receptors who will be affected of 43.9%. This 43.9% increase is unacceptable to the City of Rocky River and its residents.

VERIFICATION

STATE OF OHIO

SS.

COUNTY OF CUYAHOGA

I, Kevin F. Beirne being duly sworn, depose and say that I have read the foregoing, know the contents thereof, and the same is true and correct.

Kevin F. Beirne

Subscribed and sworn to before me this 29th day of January, 1998.

Notary Public
My appt. Expires 9-30-02

US OFFICE PRODUCTS

VERIFIED STATEMENT

OF

BRIAN F. MORAN

My name is Brian F. Moran, and I am the Building Commissioner for the City of Lakewood, Ohio, and have been since July 1, 1990. I have been employed by the City of Lakewood since June 5, 1978, and possess the following credentials and licenses to perform the duties required by the position: State of Ohio - Class I Building Official; State of Ohio - Class III Field Inspector; State of Ohio - Electrical Safety Inspector; State of Ohio - Plumbing Inspector; Council of American Building Officials - Certified Building Official. A copy of my resume outlining my professional qualifications if attached hereto as Exhibit "A."

I was asked to chart on a map of the City of Lakewood chart the following distances on the map attached hereto as Exhibit "B:"

A. Cohassett Place – 480 feet (Perimeter 1) and 970 feet (Perimeter 2) both north and south of the Norfolk-Southern railroad tracks;
B. Bunts Road – 1040 feet (Perimeter 1) and 1825 feet (Perimeter 2) both north and south of the Norfolk-Southern railroad tracks; and
C. Virginia Avenue – 510 feet (Perimeter 1) and 1020 feet (Perimeter 2) both north and south of the Norfolk-Southern railroad track.

I then determined how many "sensitive receptors," residences (dwelling units), churches, schools and hospitals were located within both Perimeter 1 and Perimeter 2 as follows:

1. There are 1020 structures located in Perimeter 1 containing 2335 dwelling units.
2. There are 1018 structures located in Perimeter 2 containing 1584 dwelling units.
3. There are 2038 structures located in both areas with a total of 3919 dwelling units.
4. Included within both areas are also: 6 schools
   1 hospital
   7 churches
   3 nursing homes
   2 assisted living facilities
   5 parks
   1 library

VERIFICATION

STATE OF OHIO)
) SS:
COUNTY OF CUYAHOGA)

I, Brian F. Moran, first being duly sworn, deposes and says that I have read the forgoing statement, know the contents thereof, and the same is true and correct to the best of my knowledge.

Brian F. Moran

Subscribed and sworn to before me this 29th day of January, 1998.

Notary Public

My Commission Expires 6/16/98

LORAINE J. LEE
NOTARY PUBLIC, STATE OF OHIO
Recorded in Cuyahoga County
My Comm. Expires June 16, 1998

EXHIBIT A

Brian F. Moran

Residence Address

21391 Robinhood
Fairview Park, Ohio 44126
(440) 734-6772

Business Address

12650 Detroit Avenue
Lakewood, Ohio 44107
(216) 529-6297

Education

Graduated 1962 from St. Edward High School

Graduated 1967 from Cuyahoga Community College -- Associate Arts Degree
Business Management

Continuing education -- Seminars and schooling required for building, electrical, H.V.A.C. and plumbing State licenses yearly from 1978 to present.

Experience

July 1, 1990 to Present -- Chief Building Official for the City of Lakewood, Ohio.

Chief Building Official for the City of Lakewood, Ohio, population 60,000. Responsible for the supervision and management of the largest suburban Building Department in the State of Ohio, consisting of a staff of twenty (20) full-time and two (2) part-time employees with an annual budget of $923,000.00 for Fiscal Year 1997. The City of Lakewood is an inner ring suburb of metropolitan Cleveland, consisting of five and a half square miles, with 12,594 one and two family structures and 988 multi-family structures with a total of 28,683 dwelling units. While the City is totally developed with an aging housing stock and commercial district, it has undergone revitalization with its new City Center Project and aggressive housing inspection and rehabilitation programs.

Job duties include, but are not limited to, overall supervision of the Building Department in relation to Building and Zoning Codes. Administration's representative to the Planning Commission, Board of Zoning Code of Appeals, Board of Building Standards/Architectural Review Board and Lakewood Reinvestment Housing Council. Issuance and inspection of all building, plumbing, electrical and H.V.A.C. permits. Licensing of all contractors, rental dwelling units, solicitors, vendors, coin operated amusement devices, bowling alley and billiard rooms and other licenses as required by the Codified Ordinances.

Resume for Brian F. Moran continued...

Experience Continued...

January 1988 to June 1990 -- Assistant Building Commissioner for the City of Lakewood.

Assistant Building Commissioner in charge of all residential properties (12,781 dwelling units). Supervision of four Building Inspectors and two Complaint Investigators regarding new construction, remodeling work, building, electrical, plumbing, heating, ventilation, air conditioning, and all building and maintenance complaints concerning absentee and owner occupied properties. Record keeping, training of new inspectors, representation of the Administration at Architectural Review Board, Board of Zoning Code of Appeals, and Planning Commission meetings. Housing Officer for the Lakewood Community Reinvestment Area Housing Council Tax Abatement Program.

June 1978 to January 1988 -- Employed by the City of Lakewood Building Department as a Building Inspector in the Commercial Division.

Building Inspector of new and existing buildings relating to building, electrical, plumbing and heating, ventilation and air conditioning. Associated record keeping; trained new inspectors; represented the Administration at various appeal board meetings; issued building, electrical, plumbing, heating and ventilation and air conditioning permits; inspected for retail Certificates of Occupancy; made annual inspections; made complaint inspections; etc. Acted as backup supervisor for Assistant Commissioners during their absence.

October 1968 to June 1978 -- Employed as a Junior Civil Engineer by the Cuyahoga County Engineer.

Junior Civil Engineer in supervisory position of four to seven men involving field construction layout. Inspected various jobs such as highway and bridge construction, sewer, water, and gas line installation, new building layout, etc.

October 1965 to June 1978 -- Part-time remodeling subcontractor with various general contractors.

1964 to 1967 -- College student.

Resume for Brian F. Moran continued...

Special Qualifications

Presently hold the following State of Ohio Certificates of Competency:

Class I -- Chief Building Official
Class III -- Field Inspector
Electrical Safety Inspector #728
Certified Plumbing Inspector #370
Council of American Building Officials Certified Building Official Certificate #900

Personal History

Fifty-three years of age and resident of the City of Fairview Park for the past nine years with wife of 30 years, Norma Jean Moran. Three children: Matthew, 28; Kelly, 26, and Erin, 21. Member of St. Angela's Parish, the West Park Knights of Columbus, the Building Officials Conference of Northeast Ohio, the Ohio Association of Plumbing Inspectors, the International Association of Electrical Inspectors, the Western Reserve Division of the International Association of Electrical Inspectors, the Council of American Building Officials, the Building Officials and Code Administrators, the National Fire Protection Association, and the Lakewood Reinvestment Area Housing Council.

EXHIBIT B

NORTH

1825'

LAKE

CLIFTON

BLVD.

1020'

PERIMETER #2

510'

1040'

PERIMETER #1

1020'

PERIMETER #2

1040'

1825'

AVE.

WHIPPOORWILL

HOMEWOOD

WILBERT

FRENCH

ANDREWS

RAMONA

PARK

CHASE

BUNTS RD.

HATHAWAY

ELBUR

JACKSON

HARLON

NICHOLSON

SOUTHERN

RAILROAD

LAKELAND

ST. CHARLES

BELLE

COOK

WARREN

MARLOWE

MANOR

CENTER WAY NORTH

LKWD HOSP.

BOARD OF ED

POST OFFICE

ROBINWOOD

PARKHAVEN ROW

ELBUR LN.

PARKWAY DR.

FRANKLIN

LAKE

AVE.

CLIFTON

BLVD

1825'

1040'

970'

480'

HOMEW

WILBERT

AVE.

GOLD COAST

WHIPPOORWILL

E. S.

CHASE

AVE.

RAMONA

PARK

AVE.

CHASE AVE.

BUNTS RD.

HATHAWAY AVE.

GIEL

ELBUR

JACKSON AVE.

HARLON

NICHOLSON

AVE.

DONALD

FIR ST.

SOUTHERN

RAILROAD

BELLE

MARLOWE

MANOR

LKWD HOSP.

ROBINWOOD AVE.

PARKHAVEN ROW

RD.

AVE.

ELBUR LN.

DR.

RD.

AVE.

FRANKLIN

STEEL

CLARENCE

AVE.

VERIFIED STATEMENT
OF
JAMES M. SEARS

My name is James M. Sears and I am the Director of Public Service and Property for the City of Bay Village. I have reviewed the verified statement of Edward J. Walter, Jr. and its attachments. I have also reviewed a current map of the City of Bay Village for purposes of determining the number of receptors within the City of Bay Village within the distances from the Norfolk Southern track shown in the LDN(65) actual train column, the LDN(65) 13.5 trains per day column and the LDN(65) 34.1 trains per day column of attachment EJW-2 to the Verified Statement of Edward J. Walter, Jr.,(" EJW-2"). Upon my review of a current map of the City of Bay Village, I have determined that (1) within the City of Bay Village within the distances from the Norfolk Southern track shown in the LDN (65) actual trai lumn of EJW-2 there are 1106 receptors that (2) within the City of Bay Village within the distances from the Norfolk Southern track shown in the LDN (65) 13.5 train column of EJW-2 there are 1129 receptors and that (3) within the City of Bay Village within the distances from the Norfolk Southern track shown in the LDN (65) 34.1 train column of EJW-2 there are 1920 receptors.

H:\HOME\KATHY\SEARS

VERIFICATION

STATE OF OHIO)
) SS
COUNTY OF CUYAHOGA)

I, James M. Sears, being duly sworn, depose and say that I have read the foregoing, know the contents thereof, and the same is true and correct.

James M. Sears

Subscribed and sworn to before me the 30 day of January, 1998.

GARY A. EBERT, Attorney
NOTARY PUBLIC-STATE OF OHIO
My Comm. Has No Expiration Date
Section 147.03 R.C.

H:\HOME\KATHY\SEARS2

VERIFIED STATEMENT OF
EDWARD J. WALTER, JR.

My name is Edward J. Walter, Jr. I am Vice President and Chief Executive Officer of Dr. Edward J. Walter & Associates, Inc., 9241 Ravenna Road, C-6, Twinsburg, Ohio 44087. A statement of my qualifications is attached as EJW-1.

I have been engaged by the cities of Rocky River, Lakewood, and Bay Village, Ohio to examine the impact of the proposed increase in the number of Norfolk Southern trains from an average of 13.5 per day to an average of 34.1 trains per day. My findings are attached in tabular form in EJW-2 and EJW-3.

Prior to discussing my findings, I want to outline the methodology my firm utilized in compiling data. As an initial matter, my firm did <u>not</u> seek to determine noise impacts along the entire Cleveland to Vermilion line segment. Rather, we examined noise impacts on three locations in each of the BRL communities, i.e. Normandy Manor, Elmwood Park, and Westlake Hotel in Rocky River; Dover Center, Naigle Road, and Parkside Road in Bay Village; and Cohassett Place, Bunts Road, and Virginia in Lakewood. As shown in EJW-2, these locations included two wayside locations and one crossing location for each of the three communities.

Once approximate locations were selected for our tests, our noise measurement equipment (Quest Technologies Model 2900 Integrating/Logging Sound Level Meter Type 1) was installed at distances of either 140 feet or 150 feet from the Norfolk Southern track. At each location, measurements were taken over approximately 24 hours. Our tests began on November 19, 1997 at

the Normandy Manor location in Rocky River and ended on December 19, 1997 at the Virginia location in Lakewood. The equipment was monitored at all times by a technician.

For obvious reasons, the number of Norfolk Southern trains passing by each location on the day of our tests did not equal the 13.5 train average used as the Base Case in the Conrail acquisition proceeding. Thus, while I have presented the LDN(65) values actually recorded in the EJW-2 column headed "actual train values", I have converted those values in the next column, headed "13.5 trains/day", in order to give the Surface Transportation Board LDN(65) values for the Base Case.

It is important to note two facts with regard to the data I have compiled. First, while the noise measurement was done by my firm, we have consistently applied the Norfolk Southern methodologies as presented in Appendix B, Noise Methodology.

Second, while the LDN(65) distances shown for the locations vary widely, this is not an unusual result. Any number of location-specific factors, including topography and ambient noise levels, affect LDN(65) distances.

The next column of EJW-2 again reflects a conversion of the actual train values to demonstrate the results if the number of trains is increased to 34.1 per day, i.e. the number of trains Norfolk Southern says it will average in the Post-Acquisition environment.

It is my understanding that representatives of Rocky River, Bay Village, and Lakewood will be reviewing maps to determine the

number of "sensitive receptors" located within the distances from the Norfolk Southern tracks shown in my 13.5 trains per day and 34.1 trains/day columns to develop totals for the three communities in the Base Case and Post Acquisition environments. I consider this to be a reasonable use of my data.

The next three columns on EJW-3 present the 100 feet LDN levels as measured ("actual train values"), for the Base Case ("13.5 trains/day"), and for the Post Acquisition Case ("34.1 trains/day"). As shown in the final column, the change from the Base Case number of trains to the Post Acquisition number of trains is 4.0 dB.

It is my understanding that the Draft Environmental Impact Statement proposes no mitigation measures when the change in dB is less than 5.0. Given the number of sensitive receptors affected in these three communities and the high noise levels already present in these locations, I believe the DEIS approach to be in error.

In order to explain the basis for my position, I first want to explain the significance of changes in dB levels. As reflected in the Handbook of Noise Measurement (pages attached at EJW-4), a change of 3 dB indicates an approximate doubling of noise. A change of 4 dB (the predicted change for Rocky River, Bay Village, and Lakewood) indicates a noise level approximately 2.5 times the original, and a dB level 5 higher than the status quo indicates a resulting noise level approximately 3.2 times the prior level.

Since phrases such as "doubling" and "tripling" do not give a clear picture of the significance of the resulting noise level, I have attached EJW-5, regulations of the Office of the Secretary, U.S. Department of Housing and Urban Development. As may be seen in Section 51.101(a)(3), page 287, "HUD assistance for the construction of new noise sensitive uses is prohibited generally for projects with unacceptable noise exposures and is discouraged for projects with normally unacceptable noise exposure." "Noise sensitive uses" are defined in the same section to include housing, nursing homes, and hospitals, what the DEIS calls "sensitive receptors."

Section 51.101(a)(4) also points out the obvious fact that "environmental noise is a marketability factor" for existing facilities and HUD considers this factor "in determining the amount of insurance or other assistance that may be given."

HUD's "exterior noise goals", found in Section 51.101(a)(8), are that these levels "not exceed a day-night average sound level of 55 decibels." HUD notes that this level is recommended by the Environmental Protection Agency as a goal for outdoors in residential areas. HUD further states that "for the purposes of this regulation and to meet other program objectives, sites with a day-night average sound level of 65 and below are acceptable and are allowable." In order to place this in context, the Board thus should note that moving the 65 Ldn line further away from the tracks, the result of increasing the number of trains, means that additional homes and other receptors will be in a noise zone

that is neither acceptable nor allowable. Thus, when we say that additional sensitive receptors would be placed within the 65 Ldn contour line, what we are really saying is that the amount of noise experienced by these receptors has become unacceptable.

The above-noted standards of acceptability for HUD assistance for the construction of new noise sensitive uses are contained in Section 51.103(c) of HUD's regulations, page 289. As may be seen, "normally unacceptable" is defined as "above 65 dB but not exceeding 75 dB." "Unacceptable" is defined as "above 75 dB." Using these definitions, the data in EJW-2 thus mean that at a distance of 100' from the Norfolk Southern tracks, 13.5 trains a day result in a dB that is "normally unacceptable" for all but one location and that one location, Bunts Road, is in the "unacceptable" category.

With 34.1 trains per day, the results are reversed. That is, one location, Normandy Manor, remains in the "normally unacceptable" category and **every other location would be placed in the "unacceptable" category**.

EJW-3 quantifies the extent of the "unacceptable" noise levels under the Norfolk Southern proposal, i.e. the locations experiencing Ldn (75) with 34.1 trains per day. As may be seen, the contour line for noise levels deemed unacceptable by HUD would range from a low of 38 feet from the tracks at the Normandy Manor location to 360 feet at the Bunts Road location. On average, all receptors within 164 feet of the track would experience unacceptable noise levels. Given that receptors on