both sides of the track are affected, a strip of land approximately 328 feet wide along the right of way would experience noise levels HUD states are unacceptable.

When faced with these results, it is clear to me that the STB's 5 dB change criterion of significance ignores reality. An increase in the number of trains from 13.5 to 34.1 on the line passing through Rocky River, Bay Village, and Lakewood would create a large area that would be unacceptable under HUD criteria and would create an even larger area in which HUD would recognize that the marketability of the property would be adversely affected.

VERIFICATION

STATE OF OHIO

SS.

COUNTY OF CUYAHOGA

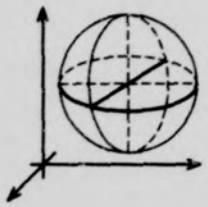
I, Edward J. Walter, Jr., being duly sworn, depose and say that I have read the foregoing, know the content thereof, and the same is true and correct.

Edward J. Walter, Jr.

Subscribed and sworn to before me this 28TH day of January, 1998.

Notary Public
My appt. expires

LOUISE A. HACK, Notary Public
State of Ohio
My Commission Expires July 31, 2002



Dr. Edward J. Walter & Associates, Inc.
Vibration and Sound Consultants

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EDWARD J. WALTER, JR.

Education

A.B., John Carroll University, Cleveland, Ohio 1968

Penn State University - Continuing Education

Professional Experience

1974-	Dr. Edward J. Walter & Associates, Inc., Twinsburg, Ohio, Vice President, General Manager
1973-1974	Vibra-Tech Engineers, Inc., Indianapolis, Indiana, Seismologist-Midwestern Area Manager
1971-1973	Philip R. Berger & Associates, (Geosonics, Inc.) Pittsburgh, PA, Seismologist
1968-1971	Dr. Edward J. Walter & Associates, Chesterland, Ohio, Supervisor of Field Operations
1964-1968	Seismological Observatory, John Carroll University, Technician
1964-1968	Dr. Edward J. Walter & Associates, Chesterland, Ohio, Field Seismologist

Society and Association Memberships

The Seismological Society of America

The Eastern Section, Seismological Society of America

The American Geological Institute

The American Institute of Mining Engineers

Society of Explosives Engineers

The Ohio Contractors Association

The Associated General Contractors of America

Ohio Mining and Reclamation Association

PITTSBURGH

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ALLENTOWN

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Boyertown, PA 19512
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Licenses

Pennsylvania Blaster's License - 3130-A

Ohio State Fire Marshal's Permit

Federal permits to purchase & use explosives

Multiple municipal contractors licenses

Michigan State Permit - A21581

Technical Papers

"The Responsibility of the Consultant in the Promulgation of Adequate Explosives Noise Legislation", Proceedings of the First Conference on Explosives and Blasting Techniques, Society of Explosives Engineers, 1975.

"Some Aspects of Small Scale Slant Hole Drilling", Proceedings of the Second Conference on Explosives and Blasting Techniques, Society of Explosives Engineers, 1976.

"Low Level Continuous Vibration and Potential Damage", Walter, Dr. Edward J. and Edward J. Walter, Jr.; Proceedings of the Fifth Conference on Explosives and Blasting Techniques, Society of Explosives Engineers, 1979.

"Pre-Blast Surveys, A Public Relations And Claim Reduction Tool", Harrison, D., Walter, Jr., E., Ferek, M., and Harrison, B. A.; Proceedings of the Twenty-First Annual Conference on Explosives and Blasting Technique, International Society of Explosives Engineers, 1995.

Duties and Responsibilities

Blasting program design and implementation.

Contract drilling and blasting.

Consulting to reduce noise and vibration produced by industrial, mining, traffic, and construction sources

Evaluation of damage resulting from noise and vibration.

Design of laws and ordinances to limit noise and vibration.

Design of laws and ordinances to regulate the use of explosives.

Instrumentation design to measure noise and vibration.

Evaluation of existing environmental regulations to determine their effect upon industry and residences.

Duties and Responsibilities (continued)

Measurement of noise and vibration to determine its effects upon communities.

Measurement of noise and vibration to determine employee exposures and reduction procedures.

Training seminars on the use of explosives--blast design and safety.

Statistical studies to determine best technology methods in the use of explosives.

Expert legal testimony regarding the aforementioned.

Design evaluation of construction specifications.

Evaluation of damage claims associated with mining, construction, and other heavy industry.

Site development consultation.

Safety Program development, evaluation, and implementation for construction demolition, mining, and explosives applications.

Representative Clients and Agencies Served Personally

The Austin Company

Aetna Life and Casualty

The American Bridge Company

The B. F. Goodrich Company

Buffalo Testing Laboratories, Inc.

The City of Cleveland

Cleveland Electric Illuminating Co. (Perry Nuclear)

Crucible Steel Company

DiGioia Brothers Excavating, Inc.

The East Ohio Gas Company

Goodyear Aerospace

The Hartford Insurance Company

Representative Clients (continued)

Herron Testing Laboratories

K M & M, A Joint Venture

Kajima-Marra/Majestic-Jay Dee, Joint Venture

The Kassouf Company

Lake County, Ohio

The Murray Hill Construction Co., Inc.

The Ohio National Guard

Solar Testing Laboratories

The State of Ohio

The Peabody Coal Company

Picker X-Ray Corporation

Steel Improvement and Forge

The Travelers Insurance Company

The City of Twinsburg

TRW, Inc.

U. S. Army, Corps of Engineers

The United States Bureau of Mines

Dr. Edward J. Walter & Associates
Acoustical Survey Results
Norfolk & Southern Railroad
Existing vs. Expanded Usage

Location		type	LDN(65) actual train values	LDN(65) 13.5 trains/day	LDN(65) 34.1 trains/day	100' LDN actual train values	100' LDN 13.5 trains/day	100' LDN 34.1 trains/day	Change 13.5 to 34.1
			feet	feet	feet	dB	dB	dB	dB
Normandy Manor		wayside	150	145	335	66.8	66.7	70.7	4.0
Elmwood Park		crossing	520	450	920	73.0	72.2	76.2	4.0
Westlake Hotel		wayside	345	410	850	70.9	71.8	75.8	4.0
Dover Center		crossing	730	750	1400	74.9	75.0	79.1	4.0
Naigle Rd		wayside	680	625	1200	74.5	74.0	78.0	4.0
Parkside Rd		wayside	350	360	760	71.0	71.1	75.2	4.0
Cohassett Place		wayside	600	480	970	73.8	72.5	76.6	4.0
Bunts Road		crossing	790	1040	1825	75.3	77.0	81.1	4.0
Virginia		wayside	690	510	1020	74.5	72.9	76.9	4.0

note: All locations had horn exposures due to density of crossings in the geographic area.

EJW-2

EJW-3

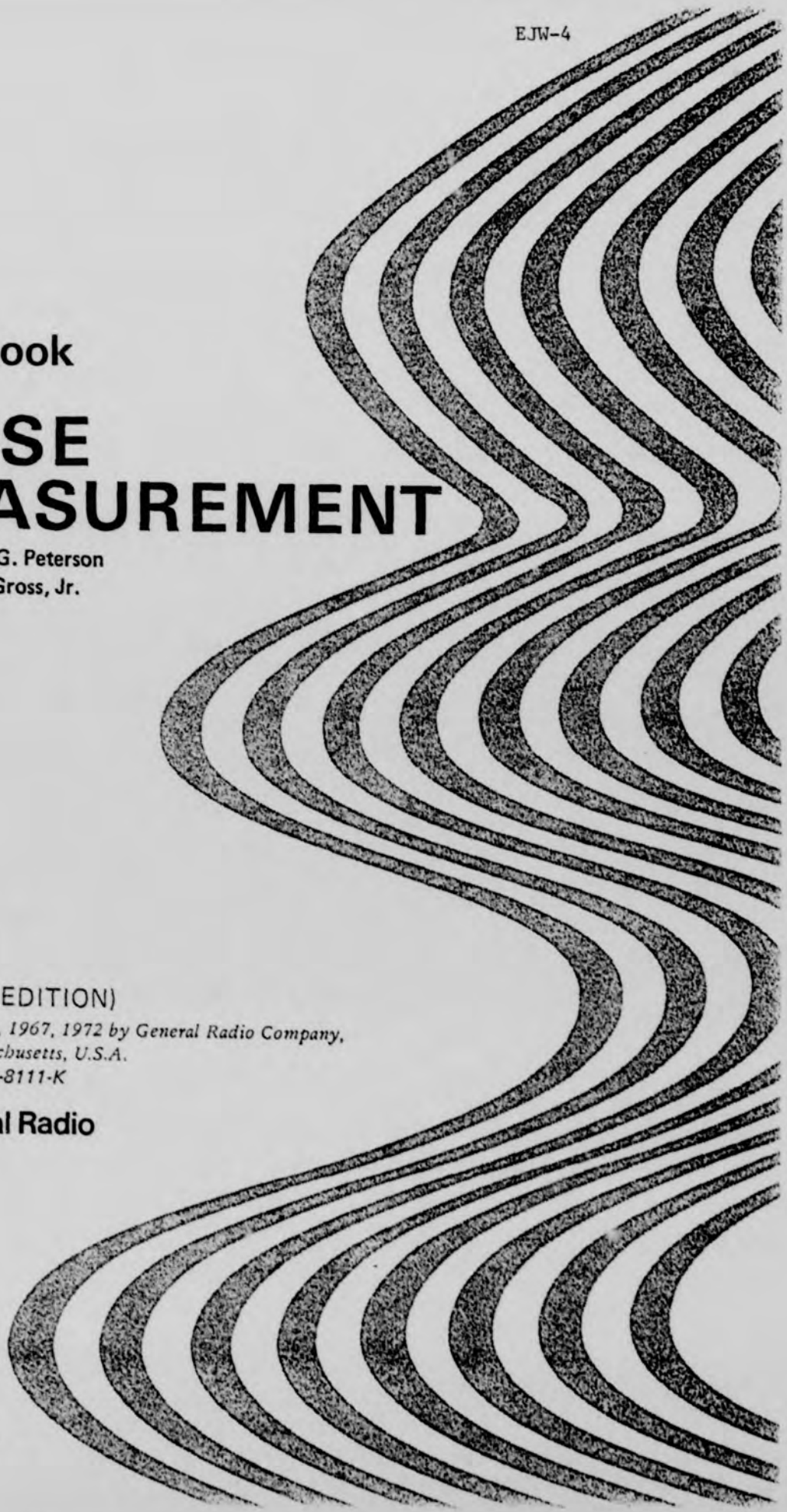
Dr. Edward J. Walter & Associates
Acoustical Survey Results
Norfolk & Southern Railroad
LDN(75) expanded usage

Location		type	LDN(75)
			34.1
			trains/day
			feet
Normandy Manor		wayside	38
Elmwood Park		crossing	130
Westlake Hotel		wayside	120
Dover Center		crossing	240
Naigle Rd		wayside	193
Parkside Rd		wayside	103
Cohassett Place		wayside	140
Bunts Road		crossing	360
Virginia		wayside	150

EJW-4

Handbook of NOISE MEASUREMENT

by Arnold P. G. Peterson
and Ervin E. Gross, Jr.



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weighting networks (L_C-L_A) is frequently noted. (This difference in decibels is called the "harmonic index" in that application only.) It serves, as indicated above, to give some idea of the frequency distribution of the noise. This difference is also used in other noise-rating techniques in conjunction with the A-weighted sound level.

2.6 COMBINING DECIBELS.

A number of possible situations require the combining of several noise levels stated in decibels. For example, we may want to predict the effect of adding a noisy machine in an office where there is already a significant noise level, to correct a noise measurement for some existing background noise, to predict the combined noise level of several different noise sources, or to obtain a combined total of several levels in different frequency bands.

In none of these situations should the numbers of decibels be added directly. The method that is usually correct is to combine them on an energy basis. The procedure for doing this is to convert the numbers of decibels to relative powers, to add or subtract them, as the situation may require, and then convert back to the corresponding decibels. By this procedure it is easy to see that a noise level of 80 decibels combined with a noise level of 80 decibels yields 83 decibels and not 160 dB. A table showing the relation between power ratio and decibels appears in Appendix I. A chart for combining or subtracting different decibel levels is shown in Appendix II.

The single line chart of Figure 2-4 is particularly convenient for adding noise levels. For example, a noisy factory space has a present A-weighted level at a given location of 82 dB. Another machine is to be added 5 feet away. Assume it's known from measurements on the machine, that at that location in that space, it alone will produce an A-weighted level of about 78 dB. What will the over-all level be when it is added? The difference in levels is 4 dB. If this value is entered on the line chart, one finds that 1.5 dB should be added to the higher level to yield 83.5 dB as the resultant level.

2.7 VIBRATION.

Vibration is the term used to describe continuing or steady-state periodic motion. The motion may be simple harmonic motion like that of a pendulum, or it may be complex like a ride in the "whip" at an amusement park.

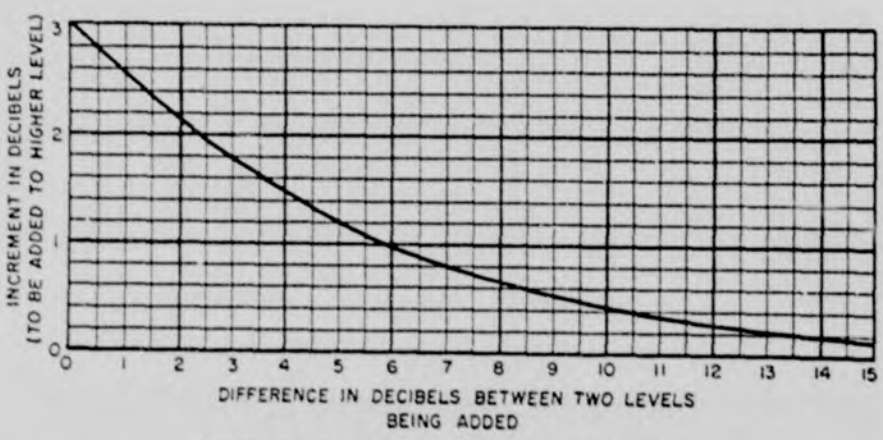


Figure 2-4. Chart for combining noise levels.

Appendix II

Chart for Combining Levels of Uncorrelated Noise Signals*

TO ADD LEVELS

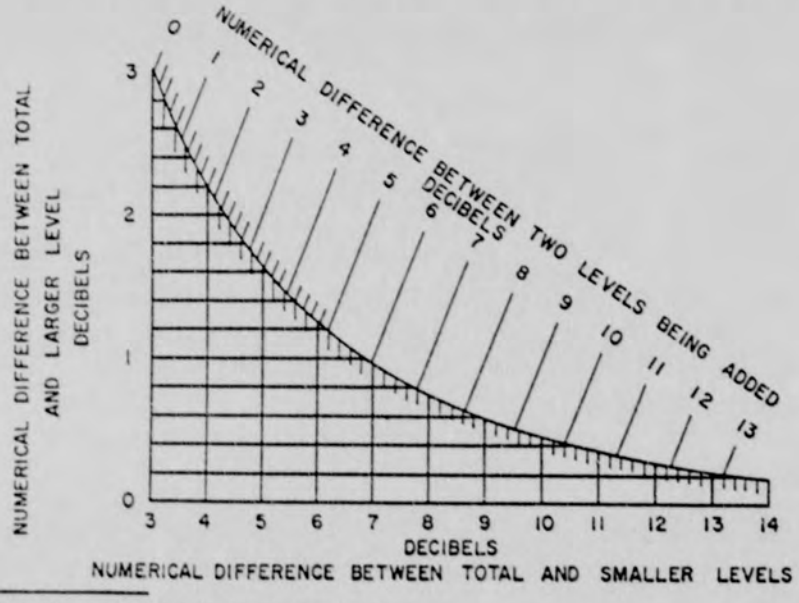
Enter the chart with the NUMERICAL DIFFERENCE BETWEEN TWO LEVELS BEING ADDED. Follow the line corresponding to this value to its intersection with the curved line, then left to read the NUMERICAL DIFFERENCE BETWEEN TOTAL AND LARGER LEVEL. Add this value to the larger level to determine the total.

Example: Combine 75 dB and 80 dB. The difference is 5 dB. The 5-dB line intersects the curved line at 1.2 dB on the vertical scale. Thus the total value is 80 + 1.2 or 81.2 dB.

TO SUBTRACT LEVELS

Enter the chart with the NUMERICAL DIFFERENCE BETWEEN TOTAL AND LARGER LEVELS if this value is less than 3 dB. Enter the chart with the NUMERICAL DIFFERENCE BETWEEN TOTAL AND SMALLER LEVELS if this value is between 3 and 14 dB. Follow the line corresponding to this value to its intersection with the curved line, then either left or down to read the NUMERICAL DIFFERENCE BETWEEN TOTAL AND LARGER (SMALLER) LEVELS. Subtract this value from the total level to determine the unknown level.

Example: Subtract 81 dB from 90 dB. The difference is 9 dB. The 9-dB vertical line intersects the curved line at 0.6 dB on the vertical scale. Thus the unknown level is 90 − 0.6 or 89.4 dB.



*This chart is based on one developed by R.Musa.

accordance with paragraphs (a) through (d) of § 50.23.

§ 50.35 Use of prior environmental assessments.

When other Federal, State, or local agencies have prepared an EA or other environmental analysis for a proposed HUD project, these documents should be requested and used to the extent possible. HUD must, however, conduct the environmental analysis and prepare the EA and be responsible for the required environmental finding.

§ 50.36 Updating of environmental reviews.

The environmental review must be re-evaluated and updated when the basis for the original environmental or compliance findings is affected by a major change requiring HUD approval in the nature, magnitude or extent of a project and the project is not yet complete. A change only in the amount of financing or mortgage insurance involved does not normally require the environmental review to be re-evaluated or updated.

Subpart F—Environmental Impact Statements

§ 50.41 EIS policy.

EIS's will be prepared and considered in program determinations pursuant to the general environmental policy stated in § 50.3 and 40 CFR 1505.2 (b) and (c).

§ 50.42 Cases when an EIS is required.

(a) An EIS is required if the proposal is determined to have a significant impact on the human environment pursuant to subpart E.

(b) An EIS will normally be required if the proposal:

(1) Would provide a site or sites for hospitals or nursing homes containing a total of 2,500 or more beds; or

(2) Would remove, demolish, convert, or substantially rehabilitate 2,500 or more existing housing units (but not including rehabilitation projects categorically excluded under § 50.20), or which would result in the construction or installation of 2,500 or more housing units, or which would provide sites for 2,500 or more housing units.

(c) When the environmental concerns of one or more Federal authorities cited in § 50.4 will be affected by the proposal, the cumulative impact of all such effects should be assessed to determine whether an EIS is required. Where all of the affected authorities provide alternative procedures for resolution, those procedures should be used in lieu of an EIS.

§ 50.43 Emergencies.

In cases of national emergency and disasters or cases of imminent threat to health and safety or other emergency which require the taking of an action with significant environmental impact, the provisions of 40 CFR 1506.11 and of any applicable § 50.4 authorities which provide for emergencies shall apply.

PART 51—ENVIRONMENTAL CRITERIA AND STANDARDS

Subpart A—General Provisions

Subpart B—Noise Abatement and Control

Subpart C—Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature

AUTHORITY: 42 U.S.C. 3535(d), unless otherwise noted.

SOURCE: 44 FR 40861, July 12, 1979, unless otherwise noted.

Subpart A—General Provisions

§ 51.1 Purpose.

The Department of Housing and Urban Development is providing program Assistant Secretaries and administrators and field offices with environmental standards, criteria and guidelines for determining project acceptability and necessary mitigating measures to insure that activities assisted by the Department achieve the goal of a suitable living environment.

§ 51.2 Authority.

This part implements the Department's responsibilities under: The National Housing Act (12 U.S.C. 1701 *et seq.*); sec. 2 of the Housing Act of 1949 (42 U.S.C. 1441); secs. 2 and 7(d) of the Department of Housing and Urban Development Act (42 U.S.C. 3531 and 3535(d)); the National Environmental Policy Act of 1969 (42 U.S.C. 4321); and the other statutes that are referred to in this part.

[61 FR 13333, Mar. 26, 1996]

§ 51.3 Responsibilities.

The Assistant Secretary for Community Planning and Development is responsible for administering HUD's environmental criteria and standards as set forth in this part. The Assistant Secretary for Community Planning and Development may be assisted by HUD officials in implementing the responsibilities established by this part. HUD will identify these HUD officials and their specific responsibilities through FEDERAL REGISTER notice.

[61 FR 13333, Mar. 26, 1996]

§ 51.4 Program coverage.

Environmental standards shall apply to all HUD actions except where special provisions and exemptions are contained in each subpart.

Subpart B—Noise Abatement and Control

§ 51.100 Purpose and authority.

(a) It is the purpose of this subpart B to:

(1) Call attention to the threat of noise pollution;

(2) Encourage the control of noise at its source in cooperation with other Federal departments and agencies;

(3) Encourage land use patterns for housing and other noise sensitive urban needs that will provide a suitable separation between them and major noise sources;

(4) Generally prohibit HUD support for new construction of noise sensitive uses on sites having unacceptable noise exposure;

(5) Provide policy on the use of structural and other noise attenuation measures where needed; and

(6) Provide policy to guide implementation of various HUD programs.

(b) *Authority.* Specific authorities for noise abatement and control are contained in the Noise Control Act of 1972, as amended (42 U.S.C. 4901 *et seq.*); and the General Services Administration, Federal Management Circular 75-2; *Compatible Land Uses at Federal Airfields.*

[44 FR 40861, July 12, 1979, as amended at 61 FR 13333, Mar. 26, 1996]

§ 51.101 General policy.

(a) It is HUD's general policy to provide minimum national standards applicable to HUD programs to protect citizens against excessive noise in their communities and places of residence.

(1) *Planning assistance.* HUD requires that grantees give adequate consideration to noise exposures and sources of noise as an integral part of the urban environment when HUD assistance is

provided for planning purposes, as follows:

(i) Particular emphasis shall be placed on the importance of compatible land use planning in relation to airports, highways and other sources of high noise.

(ii) Applicants shall take into consideration HUD environmental standards impacting the use of land.

(2) *Activities subject to 24 CFR part 58.* (i) Responsible entities under 24 CFR part 58 must take into consideration the noise criteria and standards in the environmental review process and consider ameliorative actions when noise sensitive land development is proposed in noise exposed areas. Responsible entities shall address deviations from the standards in their environmental reviews as required in 24 CFR part 58.

(ii) Where activities are planned in a noisy area, and HUD assistance is contemplated later for housing and/or other noise sensitive activities, the responsible entity risks denial of the HUD assistance unless the HUD standards are met.

(3) *HUD support for new construction.* 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. (Standards of acceptability are contained in § 51.103(c).) This policy applies to all HUD programs providing assistance, subsidy or insurance for housing, manufactured home parks, nursing homes, hospitals, and all programs providing assistance or insurance for land development, redevelopment or any other provision of facilities and services which are directed to making land available for housing or noise sensitive development. The policy does not apply to research demonstration projects which do not result in new construction or reconstruction, flood insurance, interstate land sales egistration, or any action or emergency assistance under disaster assistance provisions or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster.

(4) *HUD support for existing construction.* Noise exposure by itself will not result in the denial of HUD support for the resale and purchase of otherwise acceptable existing buildings. However, environmental noise is a marketability factor which HUD will consider in determining the amount of insurance or other assistance that may be given.

(5) *HUD support of modernization and rehabilitation.* For modernization projects located in all noise exposed areas, HUD shall encourage noise attenuation features in alterations. For major or substantial rehabilitation projects in the Normally Unacceptable and Unacceptable noise zones, HUD actively shall seek to have project sponsors incorporate noise attenuation features, given the extent and nature of the rehabilitation being undertaken and the level or exterior noise exposure. In Unacceptable noise zones, HUD shall strongly encourage conversion of noise-exposed sites to land uses compatible with the high noise levels.

(6) *Research, guidance and publications.* HUD shall maintain a continuing program designed to provide new knowledge of noise abatement and control to public and private bodies, to develop improved methods for anticipating noise encroachment, to develop noise abatement measures through land use and building construction practices, and to foster better understanding of the consequences of noise. It shall be HUD's policy to issue guidance documents periodically to assist HUD personnel in assigning an acceptability category to projects in accordance with noise exposure standards, in evaluating noise attenuation measures, and in advising local agencies about noise abatement strategies. The guidance documents shall be updated periodically in accordance with advances in the state-of-the-art.

(7) *Construction equipment, building equipment and appliances.* HUD shall encourage the use of quieter construction equipment and methods in population centers, the use of quieter equipment and appliances in buildings, and the use of appropriate noise abatement techniques in the design of residential structures with potential noise problems.

(8) *Exterior noise goals.* It is a HUD goal that exterior noise levels do not exceed a day-night average sound level of 55 decibels. This level is recommended by the Environmental Protection Agency as a goal for outdoors in residential areas. The levels recommended by EPA are not standards and do not take into account cost or feasibility. 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 (see Standards in §51.103(c)).

(9) *Interior noise goals.* It is a HUD goal that the interior auditory environment shall not exceed a day-night average sound level of 45 decibels. Attenuation measures to meet these interior goals shall be employed where feasible. Emphasis shall be given to noise sensitive interior spaces such as bedrooms. Minimum attenuation requirements are prescribed in §51.104(a).

(10) *Acoustical privacy in multifamily buildings.* HUD shall require the use of building design and acoustical treatment to afford acoustical privacy in multifamily buildings pursuant to requirements of the Minimum Property Standards.

[44 FR 40861, July 12, 1979, as amended at 50 FR 9268, Mar. 7, 1985; 61 FR 13333, Mar. 26, 1996]

§ 51.102 Responsibilities.

(a) *Surveillance of noise problem areas.* Appropriate field staff shall maintain surveillance of potential noise problem areas and advise local officials, developers, and planning groups of the unacceptability of sites because of noise exposure at the earliest possible time in the decision process. Every attempt shall be made to insure that applicants' site choices are consistent with the policy and standards contained herein.

(b) *Notice to applicants.* At the earliest possible stage, HUD program staff shall:

(1) Determine the suitability of the acoustical environment of proposed projects;

(2) Notify applicants of any adverse or questionable situations; and

(3) Assure that prospective applicants are apprised of the standards contained herein so that future site choices will be consistent with these standards.

(c) *Interdepartmental coordination.* HUD shall foster appropriate coordination between field offices and other departments and agencies, particularly the Environmental Protection Agency, the Department of Transportation, Department of Defense representatives, and the Department of Veterans Affairs. HUD staff shall utilize the acceptability standards in commenting on the prospective impacts of transportation facilities and other noise generators in the Environmental Impact Statement review process.

[44 FR 40861, July 12, 1979, as amended at 54 FR 39525, Sept. 27, 1989; 61 FR 13333, Mar. 26, 1996]

§ 51.103 Criteria and standards.

These standards apply to all programs as indicated in §51.101.

(a) *Measure of external noise environments.* The magnitude of the external noise environment at a site is determined by the value of the day-night average sound level produced as the result of the accumulation of noise from all sources contributing to the external noise environment at the site. Day-night average sound level, abbreviated as DNL and symbolized as L_{dn}, is the 24-hour average sound level, in decibels, obtained after addition of 10 decibels to sound levels in the night from 10 p.m. to 7 a.m. Mathematical expressions for average sound level and day-night average sound level are stated in the Appendix I to this subpart.

(b) *Loud impulsive sounds.* On an interim basis, when loud impulsive sounds, such as explosions or sonic booms, are experienced at a site, the day-night average sound level produced by the loud impulsive sounds alone shall have 8 decibels added to it in assessing the acceptability of the site (see Appendix I to this subpart). Alternatively, the C-weighted day-night average sound level (L_{Cdn}) may be used without the 8 decibel addition, as indicated in §51.106(a)(3). Methods for assessing the contribution of loud impulsive sounds to day-night average sound level at a site and mathematical expressions for determining whether a sound is classed as "loud impulsive"

are provided in the Appendix I to this subpart.

(c) *Exterior standards.* (1) The degree of acceptability of the noise environment at a site is determined by the sound levels external to buildings or other facilities containing noise sensitive uses. The standards shall usually apply at a location 2 meters (6.5 feet) from the building housing noise sensitive activities in the direction of the predominant noise source. Where the building location is undetermined, the standards shall apply 2 meters (6.5 feet) from the building setback line nearest to the predominant noise source. The standards shall also apply at other locations where it is determined that quiet outdoor space is required in an area ancillary to the principal use on the site.

(2) The noise environment inside a building is considered acceptable if: (i) The noise environment external to the building complies with these standards, and (ii) the building is constructed in a manner common to the area or, if of uncommon construction, has at least the equivalent noise attenuation characteristics.

SITE ACCEPTABILITY STANDARDS

	Day-night average sound level (in decibels)	Special approvals and requirements
Acceptable	Not exceeding 65 dB(1)	None.
Normally Unacceptable	Above 65 dB but not exceeding 75 dB	Special Approvals (2) Environmental Review (3). Attenuation (4).
Unacceptable	Above 75 dB	Special Approvals (2). Environmental Review (3). Attenuation (5).

Notes: (1) Acceptable threshold may be shifted to 70 dB in special circumstances pursuant to § 51.105(a).
(2) See § 51.104(b) for requirements.
(3) See § 51.104(b) for requirements.
(4) 5 dB additional attenuation required for sites above 65 dB but not exceeding 70 dB and 10 dB additional attenuation required for sites above 70 dB but not exceeding 75 dB. (See § 51.104(a).)
(5) Attenuation measures to be submitted to the Assistant Secretary for CPD for approval on a case-by-case basis.

[44 FR 40861, July 12, 1979, as amended at 49 FR 12214, Mar. 29, 1984]

§ 51.104 Special requirements.

(a)(1) *Noise attenuation.* Noise attenuation measures are those required in addition to attenuation provided by buildings as commonly constructed in the area, and requiring open windows for ventilation. Measures that reduce external noise at a site shall be used wherever practicable in preference to the incorporation of additional noise attenuation in buildings. Building designs and construction techniques that provide more noise attenuation than typical construction may be employed also to meet the noise attenuation requirements.

(2) *Normally unacceptable noise zones and unacceptable noise zones.* Approvals in Normally Unacceptable Noise Zones require a minimum of 5 decibels additional sound attenuation for buildings having noise-sensitive uses if the day-night average sound level is greater than 65 decibels but does not exceed 70 decibels, or a minimum of 10 decibels of additional sound attenuation if the day-night average sound level is greater than 70 decibels but does not exceed 75 decibels. Noise attenuation measures in Unacceptable Noise Zones require the approval of the Assistant Secretary for Community Planning and Development, or the Certifying Officer for activities subject to 24 CFR part 58. (See § 51.104(b)(2).)

(b) *Environmental review requirements.* Environmental reviews shall be conducted pursuant to the requirements of 24 CFR parts 50 and 58, as applicable, or other environmental regulations issued by the Department. These requirements are hereby modified for all projects proposed in the Normally Unacceptable and Unacceptable noise exposure zones as follows:

(1) *Normally unacceptable noise zone.* (i) All projects located in the Normally Unacceptable Noise Zone require a Special Environmental Clearance except an EIS is required for a proposed project located in a largely undeveloped area, or where the HUD action is

likely to encourage the establishment of incompatible land use in this noise zone.

(ii) When an EIS is required, the concurrence of the Program Assistant Secretary is also required before a project can be approved. For the purposes of this paragraph, an area will be considered as largely undeveloped unless the area within a 2-mile radius of the project boundary is more than 50 percent developed for urban uses and infrastructure (particularly water and sewers) is available and has capacity to serve the project.

(iii) All other projects in the Normally Unacceptable zone require a Special Environmental Clearance, except where an EIS is required for other reasons pursuant to HUD environmental policies.

(2) *Unacceptable noise zone.* An EIS is required prior to the approval of projects with unacceptable noise exposure. Projects in or partially in an Unacceptable Noise Zone shall be submitted to the Assistant Secretary for Community Planning and Development, or the Certifying Officer for activities subject to 24 CFR part 58, for approval. The Assistant Secretary or the Certifying Officer may waive the EIS requirement in cases where noise is the only environmental issue and no outdoor noise sensitive activity will take place on the site. In such cases, an environmental review shall be made pursuant to the requirements of 24 CFR parts 50 or 58, as appropriate.

[44 FR 40861, July 12, 1979, as amended at 61 FR 13333, Mar. 26, 1996]

§ 51.105 Exceptions.

(a) *Flexibility for non-acoustic benefits.* Where it is determined that program objectives cannot be achieved on sites meeting the acceptability standard of 65 decibels, the Acceptable Zone may be shifted to L_{dn} 70 on a case-by-case basis if all the following conditions are satisfied:

(1) The project does not require an Environmental Impact Statement under provisions of §51.104(b)(1) and noise is the only environmental issue.

(2) The project has received a Special Environmental Clearance and has received the concurrence of the Environmental Clearance Officer.

(3) The project meets other program goals to provide housing in proximity to employment, public facilities and transportation.

(4) The project is in conformance with local goals and maintains the character of the neighborhood.

(5) The project sponsor has set forth reasons, acceptable to HUD, as to why the noise attenuation measures that would normally be required for new construction in the L_{dn} 65 to L_{dn} 70 zone cannot be met.

(6) Other sites which are not exposed to noise above L_{dn} 65 and which meet program objectives are generally not available.

The above factors shall be documented and made part of the project file.

[44 FR 40861, July 12, 1979, as amended at 61 FR 13334, Mar. 26, 1996]

§ 51.106 Implementation.

(a) *Use of available data.* HUD field staff shall make maximum use of noise data prepared by others when such data are determined to be current and adequately projected into the future and are in terms of the following:

(1) *Sites in the vicinity of airports.* The noise environment around airports is described sometimes in terms of Noise Exposure Forecasts, abbreviated as NEF or, in the State of California, as Community Noise Equivalent Level, abbreviated as CNEL. The noise environment for sites in the vicinity of airports for which day-night average sound level data are not available may be evaluated from NEF or CNEL analyses using the following conversions to DNL:

DNL=NEF+35
DNL=CNEL

(2) *Sites in the vicinity of highways.* Highway projects receiving Federal aid are subject to noise analyses under the procedures of the Federal Highway Administration. Where such analyses are available they may be used to assess sites subject to the requirements of this standard. The Federal Highway Administration employs two alternate sound level descriptors: (i) The A-weighted sound level not exceeded more than 10 percent of the time for the highway design hour traffic flow, symbolized as L_{10}; or (ii) the equivalent

sound level for the design hour, symbolized as L_{eq}. The day-night average sound level may be estimated from the design hour L_{10} or L_{eq} values by the following relationships, provided heavy trucks do not exceed 10 percent of the total traffic flow in vehicles per 24 hours and the traffic flow between 10 p.m. and 7 a.m. does not exceed 15 percent of the average daily traffic flow in vehicles per 24 hours:

DNL=L_{10} (design hour)—3 decibels
DNL=L_{eq} (design hour) decibels

Where the auto/truck mix and time of day relationships as stated in this section do not exist, the HUD Noise Assessment Guidelines or other noise analysis shall be used.

(3) *Sites in the vicinity of installations producing loud impulsive sounds.* Certain Department of Defense installations produce loud impulsive sounds from artillery firing and bombing practice ranges. Noise analyses for these facilities sometimes encompass sites that may be subject to the requirements of this standard. Where such analyses are available they may be used on an interim basis to establish the acceptability of sites under this standard. The Department of Defense uses day-night average sound level based on C-weighted sound level, symbolized L_{Cdn}, for the analysis of loud impulsive sounds. Where such analyses are provided, the 8 decibel addition specified in § 51.103(b), is not required, and the same numerical values of day-night average sound level used on an interim basis to determine site suitability for non-impulsive sounds apply to the L_{Cdn}.

(4) *Use of areawide acoustical data.* HUD encourages the preparation and use of areawide acoustical information, such as noise contours for airports. Where such new or revised contours become available for airports (civil or military) and military installations they shall first be referred to the HUD State Office (Environmental Officer) for review, evaluation and decision on appropriateness for use by HUD. The HUD State Office shall submit revised contours to the Assistant Secretary for Community Planning and Development for review, evaluation and decision whenever the area affected is changed by 20 percent or more, or whenever it is determined that the new contours will have a significant effect on HUD programs, or whenever the contours are not provided in a methodology acceptable under § 51.106(a)(1) or in other cases where the HUD State Office determines that Headquarters review is warranted. For other areawide acoustical data, review is required only where existing areawide data are being utilized and where such data have been changed to reflect changes in the measurement methodology or underlying noise source assumptions. Requests for determination on usage of new or revised areawide data shall include the following:

(i) Maps showing old, if applicable, and new noise contours, along with brief description of data source and methodology.

(ii) Impact on existing and prospective urbanized areas and on development activity.

(iii) Impact on HUD-assisted projects currently in processing.

(iv) Impact on future HUD program activity. Where a field office has determined that immediate approval of new areawide data is necessary and warranted in limited geographic areas, the request for approval should state the circumstances warranting such approval. Actions on proposed projects shall not be undertaken while new areawide noise data are being considered for HUD use except where the proposed location is affected in the same manner under both the old and new noise data.

(b) *Site assessments.* Compliance with the standards contained in § 51.103(c) shall, where necessary, be determined using noise assessment guidelines, handbooks, technical documents and procedures issued by the Department.

(c) *Variations in site noise levels.* In many instances the noise environment will vary across a site, with portions of the site being in an Acceptable noise environment and other portions in a Normally Unacceptable noise environment. The standards in § 51.103(c) shall apply to the portions of a building or buildings used for residential purposes and for ancillary noise sensitive open spaces.

(d) *Noise measurements.* Where noise assessments result in a finding that the site is borderline or questionable, or is controversial, noise measurements may be performed. Where it is determined that noise measurements are required, such measurements will be conducted in accordance with methods and measurement criteria established by the Department. Locations for noise measurements will depend on the location of noise sensitive uses that are nearest to the predominant noise source (see §51.103(c)).

(e) *Projections of noise exposure.* In addition to assessing existing exposure, future conditions should be projected. To the extent possible, noise exposure shall be projected to be representative of conditions that are expected to exist at a time at least 10 years beyond the date of the project or action under review.

(f) *Reduction of site noise by use of berms and/or barriers.* If it is determined by adequate analysis that a berm and/or barrier will reduce noise at a housing site, and if the barrier is existing or there are assurances that it will be in place prior to occupancy, the environmental noise analysis for the site may reflect the benefits afforded by the berm and/or barrier. In the environmental review process under §51.104(b), the location height and design of the berm and/or barrier shall be evaluated to determine its effectiveness, and impact on design and aesthetic quality, circulation and other environmental factors.

[44 FR 40861, July 12, 1979, as amended at 61 FR 13334, Mar. 26, 1996]

APPENDIX I TO SUBPART B—DEFINITION OF ACOUSTICAL QUANTITIES

1. *Sound Level.* The quantity in decibels measured with an instrument satisfying requirements of American National Standard Specification for Type 1 Sound Level Meters S1.4–1971. Fast time-averaging and A-frequency weighting are to be used, unless others are specified. The sound level meter with the A-weighting is progressively less sensitive to sounds of frequency below 1,000 hertz (cycles per second), somewhat as is the ear. With fast time averaging the sound level meter responds particularly to recent sounds almost as quickly as does the ear in judging the loudness of a sound.

2. *Average Sound Level.* Average sound level, in decibels, is the level of the mean-square A-weighted sound pressure during the stated time period, with reference to the square of the standard reference sound pressure of 20 micropascals.

Day-night average sound level, abbreviated as DNL, and symbolized mathematically as L_{dn} is defined as:

$$L_{dn} = 10 \log_{10}\left[\frac{1}{86400}\left(\int_{0000}^{0700} 10^{[L_A(t)+10]/10}\,dt + \int_{0700}^{2200} 10^{L_A(t)/10}\,dt + \int_{2200}^{2400} 10^{[L_A(t)+10]/10}\,dt\right)\right]$$

Time t is in seconds, so the limits shown in hours and minutes are actually interpreted in seconds. $L_A(t)$ is the time varying value of A-weighted sound level, the quantity in decibels measured by an instrument satisfying requirements of American National Standard Specification for Type 1 Sound Level Meters S1.4–1971.

3. *Loud Impulsive Sounds.* When loud impulsive sounds such as sonic booms or explosions are anticipated contributors to the noise environment at a site, the contribution to day-night average sound level produced by the loud impulsive sounds shall have 8 decibels added to it in assessing the acceptability of a site.

A loud impulsive sound is defined for the purpose of this regulation as one for which:

(i) The sound is definable as a discrete event wherein the sound level increases to a maximum and then decreases in a total time interval of approximately one second or less to the ambient background level that exists without the sound; and

(ii) The maximum sound level (obtained with slow averaging time and A-weighting of a Type 1 sound level meter whose characteristics comply with ANSI S1.4–1971) exceeds

the sound level prior to the onset of the event by at least 6 decibels; and

(iii) The maximum sound level obtained with fast averaging time of a sound level meter exceeds the maximum value obtained with slow averaging time by at least 4 decibels.

[44 FR 40861, July 12, 1979; 49 FR 10253, Mar. 20, 1984; 49 FR 12214, Mar. 29, 1984]

Subpart C—Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature

AUTHORITY: 42 U.S.C. 3535(d).

SOURCE: 49 FR 5103, Feb. 10, 1984, unless otherwise noted.

§51.200 Purpose.

The purpose of this subpart C is to:

(a) Establish safety standards which can be used as a basis for calculating acceptable separation distances (ASD) for HUD-assisted projects from specific, stationary, hazardous operations which store, handle, or process hazardous substances;

(b) Alert those responsible for the siting of HUD-assisted projects to the inherent potential dangers when such projects are located in the vicinity of such hazardous operations;

(c) Provide guidance for identifying those hazardous operations which are most prevalent;

(d) Provide the technical guidance required to evaluate the degree of danger anticipated from explosion and thermal radiation (fire); and

(e) Provide technical guidance required to determine acceptable separation distances from such hazards.

[49 FR 5103, Feb. 10, 1984, as amended at 61 FR 13334, Mar. 26, 1996]

§51.201 Definitions.

The terms *Department* and *Secretary* are defined in 24 CFR part 5.

Acceptable separation distance (ASD)—means the distance beyond which the explosion or combustion of a hazard is not likely to cause structures or individuals to be subjected to blast overpressure or thermal radiation flux levels in excess of the safety standards in §51.203. The ASD is determined by applying the safety standards established by this subpart C to the guidance set forth in HUD Guidebook, "Siting of HUD-Assisted Projects Near Hazardous Facilities."

Blast overpressure—means the pressure, in pounds per square inch, in excess of normal atmospheric pressure on the surrounding medium caused by an explosion.

Danger zone—means the land area circumscribed by the radius which delineates the ASD of a given hazard.

Hazard—means any stationary container which stores, handles or processes hazardous substances of an explosive or fire prone nature. The term "hazard" does not include pipelines for the transmission of hazardous substances, if such pipelines are located underground or comply with applicable Federal, State and local safety standards. Also excepted are: (1) Containers with a capacity of 100 gallons or less when they contain common liquid industrial fuels, such as gasoline, fuel oil, kerosene and crude oil since they generally would pose no danger in terms of thermal radiation of blast overpressure to a project; and (2) facilities which are shielded from a proposed HUD-assisted project by the topography, because these topographic features effectively provide a mitigating measure already in place.

Hazardous substances—means petroleum products (petrochemicals) and chemicals that can produce blast overpressure or thermal radiation levels in excess of the standards set forth in §51.203. A specific list of hazardous substance is found in appendix I to this subpart.

HUD-assisted project—the development, construction, rehabilitation, modernization or conversion with HUD subsidy, grant assistance, loan, loan guarantee, or mortgage insurance, of any project which is intended for residential, institutional, recreational, commercial or industrial use. For purposes of this subpart the terms "rehabilitation" and "modernization" refer only to such repairs and renovation of a building or buildings as will result in an increased number of people being

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ARI

VERIFIED STATEMENT
OF
DAVID H. MINOTT

My name is David H. Minott. I am Vice President of Alternative Resources, Inc. Alternative Resources, Inc., (ARI) has reviewed information we were furnished concerning the projected air quality impacts of the proposed Conrail Acquisition. Supplied to ARI for review were air-quality-related excerpts from the Draft Environmental Impact Statement (EIS), December 1997, prepared for the proposed Conrail Acquisition by the Section of Environmental Analysis (SEA) of the Surface Transportation Board (STB). Portions of the EIS that ARI has reviewed are as follows:

- Volume 1, Chapter 3, pages 3-25 through 3-30;
- Volume 1, Chapter 4, pages 4-49 through 4-63, plus 4-70 and 4-71;
- Volume 3B, Chapter 5, pages OH-44 through OH-70; and
- Appendix E, plus Attachments E-1 through E-10.

For background, ARI also reviewed portions of the Environmental Report (ER) that had been prepared earlier (June, 1997) by CSX and Norfolk Southern for the proposed Acquisition.

ARI has reviewed the approach STB used in the EIS to project changes in train traffic, motor vehicle queuing and associated air-pollutant emissions. There was insufficient information available to ARI, however, to permit more than a general review of the projected emissions changes. Accordingly, ARI has directed most of its efforts towards independent evaluation of the air quality impacts to expect from the proposed Acquisition. While STB considered impacts on the system-wide and county levels, ARI has focused on impacts to expect at the local level, specifically in Cuyahoga County, along the Vermillion-to-Cleveland rail segment (number N-080), in Lakewood, Rocky River and Bay Village.

Based on ARI's review of the information supplied to us, and on our independent assessment of air quality impacts, ARI has prepared comments regarding air-quality aspects of the EIS. Summary comments are offered below, followed by more detailed comments that provide documentation and further discussion.

SUMMARY COMMENTS

1. ARI found STB's non-assessment of impacts on the local scale to be lacking. While projected emissions increases within the County may be offset by emissions decreases within the County, this is not the case with regard to air quality *impacts*. Lakewood, Rocky River, and Bay Village would experience increased air quality impacts from trains and queued motor vehicles. Berea and other locales to the south will receive the benefit of reduced air quality impacts due to emissions reductions there. Accordingly, ARI has assessed the potential for localized air quality impacts in Lakewood, Rocky River, and Bay Village.

2. Modeling of air quality impacts due to queued motor vehicles at the most heavily-impacted crossing in the County (Hird Avenue, Lakewood) indicates a potential for significant, localized air quality impacts due to increased emissions of carbon monoxide. In addition, marginally-significant impacts were projected adjacent to the most heavily impacted crossings in Rocky River (Wager Road) and Bay Village (Columbia Road).

3. The simplified modeling performed here is likely conservative; that is, projected impacts may be overstated. Nonetheless, because potentially significant impacts are indicated for carbon monoxide, ARI recommends that the project proponent perform a refined air-quality modeling assessment for motor-vehicle queuing at the Hird Avenue crossing to demonstrate compliance with the ambient standards for carbon monoxide.

DETAILED COMMENTS

1. **Local Air Quality Impacts – General**

Considering emissions increases and emissions decreases projected for a given study area, and comparing the net emissions change with the entire emissions inventory for that study area, can be an appropriate approach for assessing air quality impacts on a large scale. ARI concurs that the assessments in the EIS of impacts system-wide and county-wide (e.g., Cuyahoga County) adequately demonstrate that significant air quality impacts should not be expected on the system-wide and County-level scales.

ARI, however, does not consider that same approach to be technically appropriate for evaluation of impacts on a local scale, for example, in the vicinity of the tracks and grade crossings of the Vermillion-to-Cleveland rail segment, in Lakewood, Rocky River, and Bay Village. While projected emissions increases in one portion of a given study area may be offset by projected emissions decreases at other locations in the same study area, this does not mean that air quality *impacts* from the emissions increases are offset by decreased *impacts* from the emissions reductions. This is because for most air pollutants of concern for this proposed acquisition – CO, SO_2, PM_{10}, Pb and in cases, NO_x – the maximum air quality impacts from trains and motor vehicles will occur in the immediate vicinity of the

tracks and grade crossings. If the projected emissions increases and decreases occur in different locations of the study area, then the locations of increased air quality impacts and the locations of decreased impacts will not coincide.

To illustrate, the STB projects sizeable emissions increases for the Vermillion-to-Cleveland rail segment (Norfolk Southern) that traverses the north portion of Cuyahoga County, through Lakewood, Rocky River, and Bay Village; STB projects substantial emissions decreases, however, for the Vermillion-to-Cleveland rail segment (formerly Conrail) that runs through Berea in the southern portion of the County (EIS, Tables 5-OH-20 and 21). At points, these two rail segments are about 10 miles apart. This means that communities such as Lakewood, Rocky River, and Bay Village will receive the air quality impacts from increased train and motor vehicle emissions projected for the northern leg of the Vermillion-to-Cleveland segment, while Berea will accrue the air quality benefit from decreased emissions projected for the southern leg of that segment. Again, the locations of increased air quality impacts and the locations of decreased air quality impacts do not coincide; the increased and decreased impacts do not offset each other.

Because the EIS did not address the possibility of significant, localized air quality impacts, ARI has assessed the potential for such impacts via simplified, air quality modeling. Projected air quality impacts are presented for increased motor-vehicle emissions in Comment No. 2.

2. **Local Air Quality Impacts for Motor-Vehicles Queued at Grade Crossings.** ARI has performed simplified air quality modeling to develop rough estimates of air quality impacts to be expected from motor vehicles queuing at the Hird Avenue grade crossing in Lakewood. STB has projected that crossing to experience the greatest motor-vehicle delays due to new train traffic of all crossings in Lakewood, Rocky River, or Bay Village (EIS, Attachment E-10, P. 1 of 3).

Air pollutant emission rates were estimated due to the increases in motor-vehicle queuing anticipated at the Hird Avenue grade crossing. Those emissions estimates, documented in Attachment 1, were developed for average-hourly queuing and for peak-hourly queuing conditions. The emissions estimates, expressed in units of grams of pollutant emitted per second per square meter of area, are given below:

	Average Hourly Emission Rate ($g/s/m^2$)	Peak-Hour Emission Rate ($g/s/m^2$)
NO_x	2.3×10^{-6}	3.3×10^{-5}
CO	1.3×10^{-4}	1.8×10^{-3}
SO_2	6.2×10^{-8}	8.3×10^{-7}
PM_{10}	4.0×10^{-8}	5.3×10^{-7}

US EPA recommends a specific model for assessing air quality impacts from queued motor vehicles. ARI, however, does not have the detailed information

needed as input to that model. Therefore, ARI has applied another air quality model, US EPA's ISCST3 model, which ARI considers technically appropriate for making simplified air-quality-impact predictions in this case. To assess maximum impacts, ARI modeled impacts at a location immediately adjacent to the queued motor vehicles and railroad tracks. Detailed description and documentation of ARI's application of the ISCST3 model are presented in Attachment 2.

Following application of the model, the significance of the modeled air quality impacts was assessed, by comparing the impacts with threshold concentrations set by US EPA that define a significant impact; i.e., Significant Impact Levels ("SILs"). For reference, impacts have also been compared with the National Ambient Air Quality Standards that US EPA has set for each pollutant. These comparisons are made below:

Pollutant	Averaging Period	Motor Vehicle Impact($\mu g/m^3$)	Significant Impact Level ($\mu g/m^3$)	National Ambient Standard ($\mu g/m^3$)
NO_x	Annual	0.6	1	100
CO	8-hour	3,260	500	10,000
	1-hour	4,657	2,000	40,000
SO_2	Annual	0.02	1	80
	24-hour	0.03	5	365
	3-hour	2.0	25	1,300
PM_{10}	Annual	0.01	1	50
	24-hour	0.04	5	150

From the comparison, it is apparent that the projected CO impacts exceed significant-impact thresholds. This suggests that motor vehicle queuing at the Hird Avenue crossing as a result of new train passages could have a significant air quality impact for CO. This is potentially important, given that there may not be much margin between current ambient levels of CO and the ambient standard for CO. To explain further, STB notes that Cuyahoga County is designated as a "maintenance area" by US EPA for CO (EIS, Attachment E-1, P.7), meaning the County has been brought into compliance with the ambient standards for CO, after formerly being in violation of those standards. Should ambient levels of CO increase significantly, this could put the County back into violation of the ambient standards for that pollutant.

In Rocky River and Bay Village, STB had projected, respectively, the Wager Road and Columbia Road crossings to be most heavily impacted by increased motor-vehicle queuing. Based on the modeling, CO impacts projected to be significant at Hird Avenue, would, by comparison, be projected to be marginally significant at the Wager Road and Columbia Road crossings.

The simplified modeling performed here is likely conservative; that is, projected impacts may be overstated. Nonetheless, because potentially significant impacts are indicated for CO, ARI recommends that the project proponent perform a refined air-quality modeling assessment for motor-vehicle queuing at the Hird Avenue crossing to demonstrate compliance with the ambient standards for CO.

ARI STAFF WHO CONDUCTED THIS REVIEW

Serving as ARI's lead for this independent review was David H. Minott, C.C.M. Mr. Minott is a co-founding Principal of ARI, where he directs all environmental services. He has a Bachelor's Degree in Meteorology and a Master's Degree resulting from dual curricula in business administration and environmental technology. Mr. Minott is a Board-Certified Consulting Meteorologist (C.C.M.) and is also certified as a Qualified Environmental Professional (QEP). Mr. Minott has 24 years' professional experience as an air quality consultant.

Mr. Minott was assisted by Cynthia L. Burkhart, C.C.M. Ms. Burkhart is a Senior Air Quality Scientist at ARI. She has both Bachelor's and Master's Degrees in meteorology, and has over ten years' experience as an air quality professional. Ms. Burkhart is also a Certified Consulting Meteorologist (C.C.M.) and a Qualified Environmental Professional (QEP).

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ARI

VERIFICATION

STATE OF MASSACHUSETTS

SS.

COUNTY OF MIDDLESEX

I, David H. Minott, being duly sworn, depose and say that I have read the foregoing, know the content thereof, and the same is true and correct.

David H. Minott

Subscribed and sworn to before me this 29th day of January 1998.

Notary Public
My appt. expires 1/26/00

ATTACHMENT 1

ESTIMATION OF MOTOR-VEHICLE EMISSION RATES FOR MODELING OF AIR QUALITY IMPACTS AT GRADE CROSSINGS ON THE VERMILLION-TO-CLEVELAND RAIL SEGMENT

1. Of all grade crossings in Lakewood, Rocky River and Bay Village, the grade crossing projected by STB to experience the greatest increase in motor-vehicle queuing delays is the Hird Avenue crossing in Lakewood (EIS, Attachment E-10, P. 1 of 3). Accordingly, pollutant emission rates and air quality impacts have been assessed for that intersection as a worst case.

2. Calculate average hourly emission rates for queued motor vehicles at the Hird Avenue grade crossing.

   - From the EIS (Attachment E-10, P. 1 of 3), STB estimates an average of 20.6 new trains per day traversing the rail segment, with about 22 vehicle-hours of delay occurring per day as a result at the Hird Avenue crossing. This is an average of 0.86 trains passing per hour, and an average of 1.07 vehicle-hours of delay per train at Hird Avenue.

   - Average emission rates were calculated using the "emission factors" appearing in the EIS, Table E-9, which STB developed based on US EPA guidance. The emission factors are given in units of grams of pollutant emitted for each hour that a motor vehicle idles. The per-vehicle emission factors are:

	g/hr	g/sec
NO_x	11.4	3.2×10^{-3}
CO	567	0.16
SO_2	0.285	7.9×10^{-5}
PM_{10}	0.188	5.2×10^{-5}

- As noted above, there is an average of 1.07 vehicle hours of delay (idling) per train passage at Hird Avenue. Thus, using the above emission factors, the average, per-train emission rates for queued motor vehicles are:

Average Emissions from Queued Motor Vehicles per Train Passage:

	g/hr	g/sec
NO_x	12.2	0.0033
CO	607	0.17
SO_2	0.31	8.6×10^{-5}
PM_{10}	0.20	5.6×10^{-5}

Emissions for lead (Pb) are not included because few motor vehicles use leaded gasoline.

- But at Hird Avenue crossing, there are 0.86 trains passing per hour on average, not one per hour. So, the emission rates above need to be adjusted; i.e., multiplied by the ratio of 0.86/1. The resulting average hourly emissions from queued motor vehicles at the Hird Avenue crossing are as follows:

	Average Hourly Emissions (g/s)
NO_x	.0028
CO	.15
SO_2	7.4×10^{-5}
PM_{10}	4.8×10^{-5}

3. Calculate the peak-hour emission rates for queued vehicles at the Hird Avenue intersection.

- The peak hour emissions would occur during an hour that has maximum motor-vehicle queuing (commuter rush hour) and would have the peak number of train passages in an hour.

- As noted above, there are 1.07 vehicle-hours of delay for queued motor vehicles, on average, per train passage at Hird Avenue. If one assumes four minutes are required for a train to traverse the grade crossing, this implies that 16 motor vehicles queue at the Hird Avenue crossing, on average, for each train passage.

- If 16 vehicles queue per train passage on average, then ARI assumes that four times this number, 64 vehicles, queue when a train passes during commuter rush periods.

- As noted above, 0.86 trains traverse the Hird Avenue crossing per hour on average, or just under one per hour. Given this, ARI estimates that three trains would pass during a peak hour.

- Peak-hour queuing would occur when a peak train hour (3 trains per hour) coincides with a commuter rush period (64 motor vehicles queuing for 4 minutes per train). Thus, peak-hour queuing would be 64 vehicles queuing for a total of 12 minutes during the peak hour, as three trains pass during that hour.

- Motor vehicle emission rates have been calculated for peak-hour queuing, using the emission factors given above. These emission factors, as noted previously, give grams of pollutant emitted per hour of motor-vehicle idling. The 64 vehicles that queue during the peak hour do so for only 12 minutes total, or one-fifth of that hour. Accordingly, the emission factors above, which presume a full hour of idling, have been divided by five to yield "effective" emission factors for use in calculating peak-hour emissions. The effective emission factors are:

Effective Per-Vehicle Emission Factors for Peak Hour Queuing:

	g/hr	g/sec
NO_x	2.3	6.4×10^{-4}
CO	113	0.32
SO_2	.057	1.6×10^{-5}
PM_{10}	.038	1.0×10^{-5}

- The peak-hour emission rates for Hird Avenue (64 motor vehicles queued for 4 minutes for each of 3 train passages during the peak hour) are as follows, based on multiplying 64 vehicles times the effective emission factors above:

	Peak-Hour Emissions (g/s)
NO_x	0.040
CO	2.1
SO_2	0.0010
PM_{10}	0.00064

ATTACHMENT 2

MODELING OF AIR QUALITY IMPACTS DUE TO MOTOR VEHICLE DELAYS AT GRADE CROSSINGS FROM TRAIN INCREASES ON THE VERMILLION-TO-CLEVELAND RAIL SEGMENT

1. ARI has performed simplified air quality modeling to develop rough estimates of air quality impacts to be expected from motor vehicles queuing at the Hird Avenue grade crossing in Lakewood. STB has projected that crossing to experience the greatest motor-vehicle delays due to new train traffic of all crossings in Lakewood, Rocky River, or Bay Village (EIS, Attachment E-10, P. 1 of 3).

2. The air quality model which US EPA would recommend for this application would be a model such as US EPA's CAL3QHC model, which is intended specifically for assessing air quality impacts from queued motor vehicles. ARI, however, does not have the detailed information needed as input to this type of model; e.g., information about the vehicle "fleet", and about queuing numbers, frequency and geometries. Accordingly, ARI has applied another air quality model, the ISCST3 model, which it considers technically appropriate for making simplified air-quality-impact predictions in this case. ISCST3 is a US EPA model which employs the standard, Gaussian dispersion algorithm.

3. The ISCST3 model has been applied in its screening mode. That is, meteorological data input to the model were comprised of a pre-established set consisting of all feasible combinations of wind speed and atmospheric stability conditions. A computer printout documenting all input and output information for this application of the ISCST3 model is included in this Attachment.

4. In applying the ISCST3 model, the queued motor vehicles were simulated as an emissions "area source". That is, the emissions are assumed to emanate from a rectangular area that encompasses the queued vehicles. As noted in Attachment 1, peak-hour emissions would occur due to 64 motor-vehicles queued at the crossing for each train passage. It has been assumed that 32 vehicles queue in two lanes (16 vehicles per lane), on each side of the tracks. The queues are presumed to orient normal to the tracks. Emissions from all 64 queued vehicles have been assumed to emanate from a rectangular area source, 200 meters long by 6 meters wide, bisected width-wise by the tracks.

5. Average hourly and peak hourly emission rates for queued motor-vehicles at the Hird Avenue crossing were given in Attachment 1, in grams per second. Dividing these by the area of the area source (1,200 square meters) yields area-source emissions rates in grams per second per square meter, as is needed for input to the ISCST3 model:

	Average Hourly Emission Rate ($g/s/m^2$)	Peak-Hour Emission Rate ($g/s/m^2$)
NO_x	$2.3x10^{-6}$	$3.3x10^{-5}$
CO	$1.3x10^{-4}$	$1.8x10^{-3}$
SO_2	$6.2x10^{-8}$	$8.3x10^{-7}$
PM_{10}	$4.0x10^{-8}$	$5.3x10^{-7}$

6. The ISCST3 model was run with a nominal emission rate for the 200m x 6m area source of 1 gram per second per square meter (this was specifically accomplished by dividing the 200m x 6m area source into four, equal, sub-area sources, each emitting at a nominal 0.25 $g/s/m^2$). With this "unit" emission rate, the model predicted a maximum 1-hour impact adjacent to the tracks of 2,587,087 micrograms per cubic meters ($\mu g/m^3$). To obtain pollutant-specific impacts, one multiplies the pollutant-specific emission rates given above by the 2,587,087 $\mu g/m^3$ concentration resulting from the unit emission rate. Resulting, maximum 1 hour concentrations for average hourly emissions and for peak-hour emission rates are given below:

	Average Hourly Impact ($\mu g/m^3$)	Peak-Hour Impact ($\mu g/m^3$)
NO_x	6.0	85
CO	336	4657
SO_2	0.16	2.2
PM_{10}	0.10	1.4

7. The ISCST3 model, applied in its screening mode, yields predicted 1-hour impacts. Impacts for other averaging periods of interest – 3 hours, 8 hours, 24 hours, and annual – have been scaled from the 1-hour values, using the following standard scaling factors respectively: 0.9, 0.7, 0.4, and 0.1.

8. Following application of the model, the significance of the modeled air quality impacts has been assessed by comparing the modeled impacts with threshold concentrations set by US EPA that define a significant impact; i.e., Significant Impact Levels ("SILs")[1]. The SILs have regulatory status with regard to assessing impacts from "point" emissions sources such as stacks. While the SIL thresholds do not have regulatory status in assessing impacts from "mobile" sources (trains, motor vehicles), they are appropriate benchmarks in a technical sense for

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[1] US EPA, New Source Review Manual, Table C-4, Office of Air Quality Planning and Standards, October, 1990, (Draft).

assessing the significance of impacts from mobile sources. For reference, impacts have also been compared with the National Ambient Air Quality Standards that US EPA has set for each pollutant.

9. The SIL thresholds and ambient standards have been established by US EPA for specific averaging times that vary with the pollutant. In modeling impacts from queued motor vehicles, the peak hourly emission rates given above were used to assess impacts for short-term averaging periods (1, 3, and 8 hours), and average hourly emission rates were used to assess impacts for longer-term averaging periods (24-hour, annual).

10. Modeled impacts are compared below with SIL thresholds and ambient standards:

Pollutant	Averaging Period	Motor Vehicle Impact($\mu g/m^3$)	Significant Impact Level ($\mu g/m^3$)	National Ambient Standard ($\mu g/m^3$)
NO_x	Annual	0.6	1	100
CO	8-hour	3,260	500	10,000
	1-hour	4,657	2,000	40,000
SO_2	Annual	0.02	1	80
	24-hour	0.03	5	365
	3-hour	2.0	25	1,300
PM_{10}	Annual	0.01	1	50
	24-hour	0.04	5	150

From this comparison, it is apparent that impacts from SO_2 and PM_{10} are well below the SIL thresholds, and represent only minor fractions of the ambient standards. That air quality impacts from motor vehicles queuing at grade crossings are projected to be minimal for SO_2 and PM_{10} is important, as ambient levels for those pollutants in Cuyahoga County currently violate the ambient standards.

The projected impact of NO_x is essentially at the SIL threshold concentration, indicating a marginally-significant impact. The projected CO impacts exceed SIL thresholds. This suggests that motor vehicle queuing at the Hird Avenue crossing as a result of new train passages could have a significant air quality impact for CO. This is potentially important, given that there may not be much margin between current ambient levels of CO and the ambient standard for CO. To explain further, STB notes that Cuyahoga County is designated as a "maintenance area" by US EPA for CO (EIS, Attachment E-1, P. 7), meaning the County has been brought into compliance with the ambient standards for CO, after formerly being in violation of those standards. Should ambient levels of CO increase significantly, this could put the County back into violation of the ambient standards for that pollutant.

The simplified modeling performed here is likely conservative; that is, projected impacts may be overstated. Nonetheless, because potentially significant impacts are indicated for CO, ARI recommends that the project proponent perform a refined air-quality modeling assessment for motor-vehicle queuing at the Hird Avenue crossing to demonstrate compliance with the ambient standards for CO.

11. As noted in Attachment 1, the Hird Avenue crossing in Lakewood was projected by STB to have the greatest new motor-vehicle delays in the county; i.e., an increase of 22 vehicles-hours of delay per day, on average. By comparison, the most heavily impacted crossings in Rocky River and Bay Village, respectively were projected by STB to be the Wager Road crossing at 5 vehicle-hours of delay per day, and the Columbia Road crossing at 7.1 vehicle-hours of delay per day (EIS, Attachment E-10, P. 1 of 3). Impact levels from motor vehicles queued at the Wager Road and Columbia Road crossings would be proportionately reduced from impact levels presented above for Hird Avenue. Based on the modeling, CO impacts projected to be significant at Hird Avenue, would be projected to be marginally significant at the Wager Road and Columbia Road crossings. NO_x impacts projected to be marginally significant at the Hird Avenue crossing would be projected not to be significant at the Wager Road and Columbia Road crossings.

Alternative Resources, Inc.
January 1998

APPLICATION OF THE US EPA ISCST3 AIR QUALITY MODEL TO MOTOR VEHICLE EMISSIONS AT THE HIRD AVENUE (LAKEWOOD, OHIO) GRADE CROSSING

(COMPUTER PRINTOUT DOCUMENTATION OF MODEL INPUTS AND OUTPUTS)

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** MODEL SETUP OPTIONS SUMMARY ***

**Simple Terrain Model is Selected

**Model Is Setup For Calculation of Average CONCentration Values.

-- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses RURAL Dispersion.

**Model Uses User-Specified Options:
1. Gradual Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 1-HR

**This Run Includes: 4 Source(s); 1 Source Group(s); and 1 Receptor(s)

**The Model Assumes A Pollutant Type of: OTHER

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
Model Outputs Tables of Concurrent Short Term Values by Receptor for Each Day Processed (DAYTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = (GRAMS/SEC) ; Emission Rate Unit Factor = 0.10000E+07
Output Units = (MICROGRAMS/CUBIC-METER)

**Input Runstream File: RAILCR.DAT ; **Output Print File: RAILCR.OUT
**Detailed Error/Message File: ERRORS.OUT

```
CO STARTING
CO TITLEONE 1142 OHIO RAIL LINES
CO TITLETWO RAIL/ROAD CROSSINGS MODELED AS AREA SOURCES <-
CO MODELOPT GRDRIS CONC RURAL NOCMPL
CO AVERTIME  1
CO POLLUTID OTHER
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO ERRORFIL ERRORS.OUT
CO FINISHED


SO STARTING

** Source Location Cards:
**           SRCID SRCTYP      XS          YS          ZS

SO LOCATION      1 AREA      -3.0000       50.00      0.0000
SO LOCATION      2 AREA      -3.0000        0.00      0.0000
SO LOCATION      3 AREA      -3.0000      -50.00      0.0000
SO LOCATION      4 AREA      -3.0000     -100.00      0.0000


** Source Parameter Cards:
** POINT:    SRCID      QS          HS        TS        VS        DS
** VOLUME:   SRCID      QS          HS      SYINIT    SZINIT
** AREA:     SRCID      QS          HS       XINIT

SO SRCPARAM      1    0.2500000     0.00000   6.0     50.  0.   0.3
SO SRCPARAM      2    0.2500000     0.00000   6.0     50.  0.   0.3
SO SRCPARAM      3    0.2500000     0.00000   6.0     50.  0.   0.3
SO SRCPARAM      4    0.2500000     0.00000   6.0     50.  0.   0.3


SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE ELEVUNIT FEET
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG      0.       0.
RE GRIDPOLR POL DIST     10.
RE GRIDPOLR POL DDIR     90.
RE GRIDPOLR POL END
RE FINISHED

ME STARTING
ME INPUTFIL SCR.MET                                  (4I2,2F9.4,F6.1,I2,2F7.1)
ME ANEMHGHT   10.000 METERS
ME SURFDATA  99999  1990            SURFNAME
ME UAIRDATA  99999  1990            UAIRNAME
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED


OU STARTING
OU RECTABLE 1      FIRST
OU MAXTABLE 1       50
OU DAYTABLE 1
OU FINISHED
```

```
CO STARTING
CO TITLEONE 1142 OHIO RAIL LINES
CO TITLETWO RAIL/ROAD CROSSINGS MODELED AS AREA SOURCES
CO MODELOPT GRDRIS CONC RURAL NOCMPL
CO AVERTIME  1
CO POLLUTID OTHER
CO DCAYCOEF    .000000
CO RUNORNOT RUN
CO ERRORFIL ERRORS.OUT
CO FINISHED


SO STARTING

** Source Location Cards:
**          SRCID SRCTYP       XS           YS           ZS

SO LOCATION     1 AREA        -3.0000        50.00       0.0000
SO LOCATION     2 AREA        -3.0000         0.00       0.0000
SO LOCATION     3 AREA        -3.0000       -50.00       0.0000
SO LOCATION     4 AREA        -3.0000      -100.00       0.0000


** Source Parameter Cards:
** POINT:   SRCID       QS            HS        TS          VS        DS
** VOLUME:  SRCID       QS            HS      SYINIT      SZINIT
** AREA:    SRCID       QS            HS       XINIT

SO SRCPARAM     1    0.2500000       0.00000    6.0     50.  0.   0.3
SO SRCPARAM     2    0.2500000       0.00000    6.0     50.  0.   0.3
SO SRCPARAM     3    0.2500000       0.00000    6.0     50.  0.   0.3
SO SRCPARAM     4    0.2500000       0.00000    6.0     50.  0.   0.3


SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP ALL
SO FINISHED

RE STARTING
RE ELEVUNIT FEET
RE GRIDPOLR POL STA
RE GRIDPOLR POL ORIG       0.       0.
RE GRIDPOLR POL DIST     10.
RE GRIDPOLR POL DDIR     90.
RE GRIDPOLR POL END
RE FINISHED

ME STARTING
ME INPUTFIL SCR.MET                                  (4I2,2F9.4,F6.1,I2,2F7.1)
ME ANEMHGHT   10.000 METERS
ME SURFDATA  99999  1990            SURFNAME
ME UAIRDATA  99999  1990            UAIRNAME
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED


OU STARTING
OU RECTABLE 1      FIRST
OU MAXTABLE 1       50
OU DAYTABLE 1
OU FINISHED

*** **********************************
*** SETUP Finishes Successfully ***
**********************************
```

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY
1	0	0.25000E+00	-3.0	50.0	0.0	0.00	6.00	50.00	0.00	0.30	
2	0	0.25000E+00	-3.0	0.0	0.0	0.00	6.00	50.00	0.00	0.30	
3	0	0.25000E+00	-3.0	-50.0	0.0	0.00	6.00	50.00	0.00	0.30	
4	0	0.25000E+00	-3.0	-100.0	0.0	0.00	6.00	50.00	0.00	0.30	

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	1 , 2 , 3 , 4 ,

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 0.00 ; Y-ORIG = 0.00 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

10.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

90.0,

**MODELOPTs: CONC   RURAL FLAT   GRDRIS   NOCMPL

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** THE FIRST 20 HOURS OF METEOROLOGICAL DATA ***

FILE: SCR.MET FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1)
SURFACE STATION NO.: 99999 UPPER AIR STATION NO.: 99999
NAME: SURFNAME NAME: UAIRNAME
YEAR: 1990 YEAR: 1990

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-O (M)	IPCODE	PRATE (mm/HR)
90	1	1	1	90.0	1.00	293.1	1	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	2	90.0	3.00	293.1	1	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	3	90.0	1.00	293.1	2	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	4	90.0	3.00	293.1	2	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	5	90.0	5.00	293.1	2	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	6	90.0	1.00	293.1	3	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	7	90.0	3.00	293.1	3	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	8	90.0	5.00	293.1	3	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	9	90.0	10.00	293.1	3	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	10	90.0	1.00	293.1	4	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	11	90.0	3.00	293.1	4	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	12	90.0	5.00	293.1	4	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	13	90.0	10.00	293.1	4	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	14	90.0	20.00	293.1	4	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	15	90.0	1.00	293.1	5	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	16	90.0	3.00	293.1	5	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	17	90.0	5.00	293.1	5	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	18	90.0	1.00	293.1	6	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	19	90.0	3.00	293.1	6	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00
90	1	1	20	90.0	5.00	293.1	6	5000.0	5000.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 1 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	761939.25000

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 2 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	253979.75000

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 3 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	960865.68800

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 4 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	320288.56300

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 5 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	192173.14100

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 6 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	1280605.75000

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 7 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	426868.56300

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 8 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	256121.15600

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 9 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	128060.57800

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 10 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	1745821.00000

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 11 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	581940.37500

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 12 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	349164.18800

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 13 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	174582.09400

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 14 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	87291.04690

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 15 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	2031266.38000

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 16 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	677088.75000

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 17 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	406253.25000

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 18 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	2587087.25000

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 19 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	862362.37500

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** CONCURRENT 1-HR AVERAGE CONCENTRATION VALUES ENDING WITH HOUR 20 FOR DAY 1 ***
FOR SOURCE GROUP: ALL
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.00	517417.43800

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

*** NETWORK ID: POL ; NETWORK TYPE: GRIDPOLR ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

DIRECTION (DEGREES)	DISTANCE (METERS) 10.00
90.0	2587087.25000 (90010118)

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** THE MAXIMUM 50 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): 1 , 2 , 3 , 4 ,

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE	RANK	CONC	(YYMMDDHH)	AT	RECEPTOR (XR,YR)	OF TYPE
1.	2587087.25000	(90010118)	AT (	10.00, 0.00)	GP	26.	0.00000	(0)	AT (	0.00, 0.00)	
2.	2031266.38000	(90010115)	AT (	10.00, 0.00)	GP	27.	0.00000	(0)	AT (	0.00, 0.00)	
3.	1745821.00000	(90010110)	AT (	10.00, 0.00)	GP	28.	0.00000	(0)	AT (	0.00, 0.00)	
4.	1280605.75000	(90010106)	AT (	10.00, 0.00)	GP	29.	0.00000	(0)	AT (	0.00, 0.00)	
5.	960865.68800	(90010103)	AT (	10.00, 0.00)	GP	30.	0.00000	(0)	AT (	0.00, 0.00)	
6.	862362.37500	(90010119)	AT (	10.00, 0.00)	GP	31.	0.00000	(0)	AT (	0.00, 0.00)	
7.	761939.25000	(90010101)	AT (	10.00, 0.00)	GP	32.	0.00000	(0)	AT (	0.00, 0.00)	
8.	677088.75000	(90010116)	AT (	10.00, 0.00)	GP	33.	0.00000	(0)	AT (	0.00, 0.00)	
9.	581940.37500	(90010111)	AT (	10.00, 0.00)	GP	34.	0.00000	(0)	AT (	0.00, 0.00)	
10.	517417.43800	(90010120)	AT (	10.00, 0.00)	GP	35.	0.00000	(0)	AT (	0.00, 0.00)	
11.	426868.56300	(90010107)	AT (	10.00, 0.00)	GP	36.	0.00000	(0)	AT (	0.00, 0.00)	
12.	406253.25000	(90010117)	AT (	10.00, 0.00)	GP	37.	0.00000	(0)	AT (	0.00, 0.00)	
13.	349164.18800	(90010112)	AT (	10.00, 0.00)	GP	38.	0.00000	(0)	AT (	0.00, 0.00)	
14.	320288.56300	(90010104)	AT (	10.00, 0.00)	GP	39.	0.00000	(0)	AT (	0.00, 0.00)	
15.	256121.15600	(90010108)	AT (	10.00, 0.00)	GP	40.	0.00000	(0)	AT (	0.00, 0.00)	
16.	253979.75000	(90010102)	AT (	10.00, 0.00)	GP	41.	0.00000	(0)	AT (	0.00, 0.00)	
17.	192173.14100	(90010105)	AT (	10.00, 0.00)	GP	42.	0.00000	(0)	AT (	0.00, 0.00)	
18.	174582.09400	(90010113)	AT (	10.00, 0.00)	GP	43.	0.00000	(0)	AT (	0.00, 0.00)	
19.	128060.57800	(90010109)	AT (	10.00, 0.00)	GP	44.	0.00000	(0)	AT (	0.00, 0.00)	
20.	87291.04690	(90010114)	AT (	10.00, 0.00)	GP	45.	0.00000	(0)	AT (	0.00, 0.00)	
21.	0.00000	(0)	AT (	0.00, 0.00)		46.	0.00000	(0)	AT (	0.00, 0.00)	
22.	0.00000	(0)	AT (	0.00, 0.00)		47.	0.00000	(0)	AT (	0.00, 0.00)	
23.	0.00000	(0)	AT (	0.00, 0.00)		48.	0.00000	(0)	AT (	0.00, 0.00)	
24.	0.00000	(0)	AT (	0.00, 0.00)		49.	0.00000	(0)	AT (	0.00, 0.00)	
25.	0.00000	(0)	AT (	0.00, 0.00)		50.	0.00000	(0)	AT (	0.00, 0.00)	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

**MODELOPTs: CONC RURAL FLAT GRDRIS NOCMPL

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN (MICROGRAMS/CUBIC-METER) **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 2587087.25000	ON 90010118:	AT (10.00, 0.00, 0.00, 0.00)	GP	POL

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

**MODELOPTs: CONC RURAL FLAT GRDRIS
NOCMPL

*** Message Summary : ISCST3 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 0 Informational Message(s)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST3 Finishes Successfully ***
****

US OFFICE PRODUCTS

SUPPLEMENTAL VERIFIED STATEMENT
OF
JAMES R. LINDEN

My name is James R. Linden, Director of Public Safety-Service, City of Rocky River, Rocky River, Ohio. I previously submitted a Verified Statement consisting of two pages and Exhibits JRL-1 and JRL-2. That statement was verified by me to be true on October 6, 1997.

I wish to expound upon my previous opinion concerning the need for construction of a new fire station North of the railroad tracks should the train increase estimated by Norfolk Southern in conjunction with the proposed acquisition be approved by the Surface Transportation Board. It is my belief that the construction of a new fire station North of the tracks at an estimated construction cost of $1.1 million, an estimated equipment cost of $98,649.85 and an annual expense for personnel costs of $800.000 would all be a necessary, life saving measure.

This belief is based in part upon the Verified Statements of Rocky River Fire Chief Christopher M. Flynn and Robert J. Alban, P.E., Rocky River's City Engineer. Such statements detail the expected increase in Emergency Vehicle response times and vehicle crossing delays as a result of the proposed tripling of train traffic. These increases are unacceptable. The resultant delays are more than mere inconvenience, but the difference between life and death. Without the construction of a new fire station, residents on the North side of the City face a risk three times as great after the acquisition that an

ambulance or fire truck on the way to their house will be forced to reroute or to sit through a deadly delay.

As Safety Service Director, it is my job to eliminate this risk. That job can only be completed by adding a second station and employing 40% more personnel to man it, both at a considerable, non-budgeted expense to the City of Rocky River, Ohio.

VERIFICATION

STATE OF OHIO

SS.

COUNTY OF CUYAHOGA

I, James R. Linden being duly sworn, depose and say that I have read the foregoing, know the contents thereof, and the same is true and correct.

James R. Linden

Subscribed and sworn to before me this 23rd day of January, 1998.

Notary Public
My appt. Expires 9-30-02

US OFFICE PRODUCTS

SUPPLEMENTAL VERIFIED STATEMENT
OF
CHRISTOPHER M. FLYNN

My name is Christopher M. Flynn, Fire Chief, City of Rocky River, Ohio. I previously submitted a Verified Statement on behalf of the City of Rocky River consisting of six written pages and attached Exhibits labeled CMF-1 through CMF-6. That statement was verified to be true by me on October 6, 1997.

I wish to supplement my statement at this time by including the parenthetical phrase "(See Exhibits CMF-3 - CMF-5 for response time information)." at the end of the second paragraph of page two of my original Verified Statement.

VERIFICATION

STATE OF OHIO

SS.

COUNTY OF CUYAHOGA

I, Christopher M. Flynn, being duly sworn, depose and say that I have read the foregoing, know the contents thereof, and the same is true and correct.

Christopher M. Flynn

Subscribed and sworn to before me this 23rd day of January, 1998.

Notary Public
My appt. Expires 9-30-02

SUPPLEMENTAL VERIFIED STATEMENT
OF
DONALD L. WAGNER

My name is Donald L. Wagner, Chief of Police, City of Rocky River, Rocky River, Ohio. I previously submitted a verified statement consisting of four written pages and Exhibits DLW-1 through DLW-6. That statement was verified by me to be true on October 6, 1997.

I wish to supplement my previous statement at this time by correcting the second sentence in the second paragraph of page three of said Verified Statement to read: "[T]his proposal, if put into effect will affect the **quality of life** as it directly relates to Police Services provided to Rocky River citizens North of the Railroad."

VERIFICATION

STATE OF OHIO

SS.

COUNTY OF CUYAHOGA

I, Donald L. Wagner being duly sworn, depose and say that I have read the foregoing, know the contents thereof, and the same is true and correct.

Donald L. Wagner

Donald L. Wagner

Subscribed and sworn to before me this 23rd day of January, 1998.

Susan Wachler

Notary Public

My appt. Expires 9-30-02

DISCOVERY
/RESEARCH

Burns & McDonnell is conducting an environmental analysis of this NS proposal to reroute the additional post-Acquisition freight rail traffic away from the West Shore to Vermilion corridor. Upon completion of this work, NS will provide SEA and the third-party consultants with a copy of the written analysis.

FUNDING OF NS TRAFFIC REROUTING AND GRADE CROSSING PROPOSAL

NS expects that both the rerouting project and the grade crossing closure and upgrade project will qualify for federal and state funding.

An "order of magnitude" estimate of the cost of the proposal to reroute the increased NS rail traffic resulting from the proposed Acquisition is $46,950,000. This includes approximately $24,350,000 to upgrade the existing Conrail track from CP 190 to Cloggsville, $14,000,000 to construct the grade separation at Front Street in Berea, $5,600,000 to construct the grade separation at Fitch Street in Olmsted Falls and $3,000,000 to construct the second connection at Vermilion. NS estimates the cost of upgrading the West Shore to Vermilion at-grade public crossings to be approximately $2,300,000. The cost of closing redundant at-grade crossings in Lakewood has not been calculated as it is dependent upon the location and number of such crossings to be eliminated. NS proposes that discussions with local and state officials be renewed to determine which of the grade crossings in the City are appropriate for closure and which should be upgraded to include both flashing lights and gates.

Both projects will require not only political and regulatory support from the federal government, the State of Ohio, and local officials but the commitment of public funding for these important safety-enhancing projects. To that end, NS will seek all available assistance from local, state and federal authorities to obtain the necessary funding to permit these projects to go forward to construction. Rerouting of the increased post-Acquisition rail traffic from the Lakewood corridor would take place upon completion of the proposed rerouting construction project.

NS-32

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

STB FINANCE DOCKET NO. 33388

NORFOLK SOUTHERN CORPORATION AND
NORFOLK SOUTHERN RAILWAY COMPANY'S RESPONSES TO
THE FIRST SET OF INTERROGATORIES AND
FIRST SET OF DOCUMENT PRODUCTION REQUESTS FROM
THE CITY OF BAY VILLAGE, CITY OF ROCKY RIVER, AND CITY OF LAKEWOOD
TO NORFOLK SOUTHERN (BRL-1)

Norfolk Southern Corporation and Norfolk Southern Railway Company (collectively, "NS") hereby respond to BRL-1, the first set of interrogatories and first set of document production requests to NS from the cities of Bay Village, Rocky River, and Lakewood, Ohio ("BRL" or "Requester").

GENERAL RESPONSES

The following general responses are made with respect to all of the requests and interrogatories.

1. NS will conduct a reasonable search for documents responsive to the requester's documents requests. Except as objections are noted herein,[1] all responsive documents will be made available for inspection and copying in Applicants' document depository, which is located at the offices of Arnold & Porter in Washington, D.C. Copies of documents will be supplied upon payment of duplicating costs (including, in the case of computer tapes, costs for programming, tapes and processing time).

2. Production of information or documents does not necessarily imply that they are relevant to this proceeding, and is not to be construed as waiving any objection stated herein.

3. In line with past practice in cases of this nature, NS has not secured verifications for the answers to interrogatories herein. NS is prepared to discuss the matter with requester if this is of concern with respect to any particular answer.

4. Where objections have been raised as to the scope of the interrogatory, NS is willing to discuss searching for and producing information covered by a more limited request or interrogatory taking account of the stated objection.

GENERAL OBJECTIONS

The following general objections are made with respect to all of the interrogatories and documents requests. Any additional specific objections are stated at the beginning of the response to each interrogatory or document request.

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[1] Thus, any responses that state that responsive documents are being produced is subject to the General Objections so that, for example, any documents subject to attorney-client privilege or the work product doctrine are not being produced.

1. NS objects to production of, and is not producing, documents or information subject to the attorney-client privilege, the work product doctrine and/or the joint or common interest privilege, or administratively confidential documents or information.

2. NS objects to production of, and is not producing, documents prepared in connection with, or information relating to, possible settlement of this or any other matter.

3. NS objects to production of, and is not producing, public documents or information that is readily available, including but not limited to documents on public file at the Surface Transportation Board ("STB"), the Securities and Exchange Commission, or any other government agency or court, or that have appeared in newspapers or other public media.

4. NS objects to the production of, and is not producing, draft verified statements and documents related thereto. In prior railroad consolidation proceedings, such documents have been treated by all parties as protected from production.

5. NS objects to the production of, and is not producing, information or documents that are as readily obtainable by the requester from its own files or members.

6. NS objects to the production of, and is not producing, information or documents containing confidential or sensitive commercial information, including information subject to disclosure restrictions imposed by law in other proceedings or by contractual obligation to third parties, and that is of insufficient materiality to warrant production here even under a protective order.

7. NS objects to the requests to the extent that they seek documents or information in a form not maintained by NS in the regular course of business and not readily

available in the form requested, on the ground that such documents or information could only be developed, if at all, through unduly burdensome and oppressive special studies, which are not ordinarily required and which NS objects to performing.

8. NS objects to the interrogatories and requests as overbroad and unduly burdensome to the extent that they seek information or documents for periods prior to January 1, 1995.

9. NS objects to any requests that seek information regarding current or future operations on, or any other plans or activities relating to, or employment on, rail lines or properties other than those that NS currently owns or operates, or with respect to future operations, Conrail line segments that NS will operate at the relevant future time. The best source of information with respect to such matters is the Applicant that owns or operates the line or property in question, or will do so at the relevant future time.

10. NS incorporates, as if fully set forth herein, its General Objections 10, 11, 12, 13 and 14 set forth in NS-9, pertaining to the definitions and instructions set forth in ACE-4 incorporated by reference by BRL into BRL-1. See BRL-1, Definitions and Instructions.

11. NS objects to BRL's definition of the applicable "Line Segment" ("the Cleveland, OH to Vermilion, OH line segment") as overbroad and irrelevant in that the Line Segment as defined by requester includes underlying links located outside of requesters' geographical limits. For purposes of its response to these interrogatories, NS construes that term to refer to the NS link from milepost B 185.6 (Cloggsville) to milepost B 205.5 (Avon Lake).

INTERROGATORIES AND DOCUMENT REQUESTS

Interrogatory and Document Request No. 1:

Identify, for each of the Base Case 13.5 trains per day and for each of the Post-Acquisition Case 34.1 trains per day:

a) the origin;
b) the destination;
c) the average length;
d) the average speed of the train over each grade crossing in Bay Village, Rocky River, and Lakewood;
e) the amount of hazardous materials freight;
f) the time of day the train does and/or will operate over the Line Segment;
g) train/horn equipment;
h) train/horn sounding sequences within Bay Village, Rocky River, and Lakewood;
i) train speeds during sounding sequences within Bay Village, Rocky River, and Lakewood;
j) ground-borne vibration levels within Bay Village, Rocky River, and Lakewood; and
k) the maximum, minimum, and average time that the train has and/or will block each grade crossing within Bay Village, Rocky River, and Lakewood.

For purposes of your responses to items (a) and (b), you may respond "Bridge Traffic" if none of the freight either originates or terminates on this Line Segment.

1. NS objects to this request as unduly burdensome and overly broad. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

a) The NS Operating Plan shows 13.5 trains/day (Base Case) and 34.1 trains/day (Post Acquisition Case) operating or projected to operate over the segment from Cleveland to Vermilion, OH. Corresponding numbers for the Line Segment (Cloggsville-Avon Lake) are 12.3 trains per day (Base Case) and 31.9 trains per day (Post Acquisition Case). These trains currently carry bridge traffic and are projected to carry bridge traffic destined for points other than Bay Village, Rocky River and Lakewood. No regular local service is

operated over the Line Segment. If any local traffic were to move over the Line Segment, NS anticipates that this traffic would be handled by road switchers working out of Sheffield Yard at Avon Lake on an as-needed basis.

b) See response to subpart (a) above.

c) The average lengths of trains operating over the Line Segment for the Base Case and Post Acquisition Case are approximately 4100 feet and approximately 3900 feet respectively.

d) Average train speed over each grade crossing is as follows: MP B 189.2 (Cleveland/Lakewood City Line) to MP B 194.5 (Elmwood) - 35 miles per hour; MP 194.5 (Elmwood) to MP B 199.6 (Cuyahoga/Lorain Co. Line) - 60 miles per hour - intermodal; MP B194.5 (Elmwood) to MP B 199.6 (Cuyahoga/Lorain Co. Line) - 50 miles per hour - other freight trains. Clague Siding, located between MP B 193.9 and MP B 197.0, is a controlled siding used for meeting trains on the single track link. Trains entering and running through this siding are limited to 25 miles per hour.

e) Base Case: 26 carloads/day; Post Acquisition Case - 89 carloads/day.

f) Projected train schedules may be found in Applicants' depository. See NS-21-CO-07358-09247.

g) Airhorns are of various configurations depending upon locomotive manufacturer, horn manufacturer, locomotive age, etc. All subject horn equipment meets or exceeds FRA specification for this type of appliance.

h) Whistle signal 14(L) -- consisting of two long, one short and one long sounds -- is used in advance of each crossing at grade, unless otherwise provided by ordinance or special instruction.

i) See response to subpart (d) above.

j) NS is not in possession of information regarding any such ground-borne vibration levels.

k) A responsive document will be placed in Applicants' depository.

Interrogatory and Document Request No. 2:

Provide a disk containing the computer model and input data used to develop your response to 1(k).

2. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

Assuming normal operations, calculations of maximum, minimum, and average time that each train will block a grade crossing were made utilizing average train lengths and expected train speeds, taking into account the type of train and acceleration and deceleration factors. See response to Interrogatory 1(k). No computer model was used to make these simple calculations.

Interrogatory and Document Request No. 3:

For the base case and the post acquisition case provide:

a) the total train miles on the Line Segment; and

b) the total rail car miles.

3. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

a) Total train miles per year for the Cleveland-Vermilion line segment are as follows: Base Case: 182,810; Post Acquisition Case: 461,765. Total train miles per year for the Cloggsville-Avon Lake line segment are as follows: Base Case: 89,790; Post Acquisition Case: 232,870.

b) Total rail car miles per year for the Cleveland-Vermilion line segment are as follows: Base Case: 12,282,140; Post Acquisition Case: 28,145,685. Total rail car miles per year for the Cloggsville-Avon Lake line segment are as follows: Base Case: 5,883,800; Post Acquisition: 14,279,588.

Interrogatory and Document Request No. 4:

Identify, by mile-post numbers, each grade crossing in Bay Village, Rocky River, and Lakewood.

4. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

Responsive documents will be placed in Applicants' depository.

Interrogatory and Document Request No. 5:

For each identified grade crossing:

a) describe the form of grade crossing protection currently in place, e.g. cross-bucks, flashers, gates and lights, grade separations;

b) provide the maximum timetable speed; and

c) identify the track class.

5. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

A responsive document will be placed in Applicants' depository.

Interrogatory and Document Request No. 6:

For each identified grade crossing that is protected by gates and lights, provide the amount of time:

a) prior to the arrival of the train that the gates start coming down; and

b) after the passing of the train that the gates are fully up.

To the extent that the information provided in response to (a) and (b) would not be applicable to each case and/or post-acquisition train passing through the identified grade crossing, explain the reason for the difference and provide the applicable maximum and minimum times for each grade crossing.

6. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

a) Protective devices in place meet both NS and FRA requirements. Gates are electronically programmed to begin to lower less than four (4) seconds after lights begin to flash.

b) Gates are electrically programmed to raise in not more than twelve (12) seconds after a train has cleared the crossing circuit.

Interrogatory and Document Request No. 7:

For each of the proposed additional 20.6 trains per day:

a) identify the portion of the current routing to be replaced by use of the Line Segment;

b) explain why the current routing, e.g. the Conrail routing, may not, can not, or should not be used in the post-acquisition environment;

c) identify all routings not involving the Line Segment considered by Norfolk Southern as a replacement for the current routing;

d) describe the rationale for rejecting the routings identified in your response to (c).

7. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

a) NS objects to this subpart the basis that the term "current routing to be replaced" is vague and ambiguous. NS anticipates diverting traffic from other carriers and other routes. To the extent that the increase represents traffic diverted from other carriers or other routes, identification of its current routing would require a burdensome special study which NS is not required to perform. To the extent the increased traffic represents new traffic, there is no "current routing." Train schedules for the post-acquisition case were developed by preparing an origin-destination data base of traffic that would be expected to move over the expanded NS system, and then building a network of trains to move this traffic in an efficient and timely manner. The new train networks were developed on a "zero-based" model – current routing was not an input into the model.

b) NS objects to this subpart as vague and ambiguous. Upon approval and consummation of the proposed Transaction, CSX will control and operate trackage on Conrail's line between Cleveland (CP 181), Buffalo and points East. NS will compete for traffic between points West of Vermilion and East of Cleveland using its own ownership route (former Nickel Plate).

c) NS objects to this subpart on the basis that the term "replacement for the current routing" is vague and ambiguous. NS assumes that in this subpart the term "current routing" is intended to mean post-acquisition routing. In regard to post-acquisition routing, NS considered two alternative routes: the Cleveland Shortline to Berea and the Cloggsville Connection.

d) The Cleveland Shortline was dismissed as an alternative route because train dispatching would not be under the control of NS and also because of concerns about scheduling and congestion.

The Cloggsville Connection was dismissed as an alternative route because of the substantial expense that would be necessary to upgrade the route and build new connections.

Interrogatory and Document Request No. 8:

Describe the manner in which the projected increase of 20.6 trains per day was calculated. This description should include any assumptions as to freight gained or lost in the post-acquisition environment, but such assumptions may be stated in a way that eliminates any confidential data.

8. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

See the NS Operating Plan, Volume 3B, Section 2.0, pages 90 - 94.

Interrogatory and Document Request No. 9:

Provide all documents used to calculate the proposed increase of 20.6 trains per day. Again, you may eliminate any confidential data.

9. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

Responsive documents have been placed in Applicants' depository. See, e.g., work papers supporting the NS Operating Plan and the Verified Statements of D. Michael Mohan and John H. Williams.

Interrogatory and Document Request No. 10:

Provide all projections of numbers and lengths of trains per day over this Line Segment for:

a) the first 12 months post-acquisition; and

b) each of years two through ten post-acquisition.

In the event Norfolk Southern's projections applicable to (a) and (b) include ranges of numbers and/or lengths, those ranges should be provided in your responses to (a) and (b).

10. NS objects to this request on the basis that it would require NS to undertake a burdensome special study which NS is not required to undertake. The studies performed to develop the NS Operating Plan included detailed traffic analysis and operations simulation for the base year 1995 and the post-acquisition period, assumed to be three years after approval and consummation of the Transaction. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows.

a) and b) Figure D.6-2 of Volume 3B presents data for normal year operations. Train lengths can be found in the work papers supporting the NS Operating Plan.

Interrogatory and Document Request No. 11:

For the period commencing January 1, 1992:

a) list all derailments, collisions, accidents, and/or incidents experienced by Norfolk Southern on this Line Segment;

b) for each event listed in (a), provide a copy of any report made to FRA;

c) identify the nearest grade crossing to each accident/incident;

d) identify all accidents involving personal injury and/or death;

e) identify all accidents involving property damage and provide a dollar quantification of such damage if known;

f) identify and describe all events involving any release or spill of hazardous materials (as defined by FRA); and

g) for each event identified in (d) and (e), provide a copy of any report made to either FRA or the U.S.D.O.T. Research and Special Programs Administration.

NS objects to this interrogatory to the extent that it seeks information pertaining to events occurring prior to January 1, 1995, and NS is not producing information or documents pertaining to any such events. NS also objects to producing, and is not producing, information or documents available publicly through the Federal Railroad Administration or any other government agency. Without waiving any objection, and subject to the foregoing objections and the general Objections stated above, NS responds as follows:

a) Responsive documents, if any, to the extent not publicly available, will be placed in the Applicants' depository.

b) These documents are available to requester from public sources.

c) For events occurring at grade crossings, see the documents produced in response to subpart (a). As to events occurring not at grade crossings, NS objects to this subpart as it would require a special study, which NS is not required to perform.

d) Responsive documents, if any, to the extent not publicly available, will be placed in Applicants' depository.

e) Responsive documents, if any, to the extent not publicly available, will be placed in Applicants' depository.

f) None.

g) These documents are available to requester from public sources.

Interrogatory and Document Request No. 12:

'dentify all communication methods presently available to Norfolk Southern to provide advance warning of an approaching train to emergency service providers, i.e. police, fire, and ambulance, in Bay Village, Rocky River, and Lakewood.

NS objects to this Interrogatory as vague and ambiguous, particularly with respect to the phrase "all communication methods presently available." Without waiving any objection, and subject to the foregoing objection and the General Objections stated above, NS responds as follows:

NS does not routinely provide advance notification of approaching trains. All NS crossings are posted with a sign showing NS' Police "Hot Line" number (1-800-946-4744). In the event of an emergency, local emergency service providers may use this number for 24-hour access to NS' Police Service Center, which, in turn, is in contact with all dispatching offices.

Interrogatory and Document Request No. 13:

Identify all grade crossings in Bay Village, Rocky River, and Lakewood previously considered for grade separations.

NS objects to this interrogatory as vague and ambiguous with respect to the phrase "previously considered." Without waiving any objection, and subject to the foregoing objection and the General Objections stated above, NS responds as follows:

NS has no records indicating that grade separations have been considered for any crossing in Bay Village, Rocky River, or Lakewood. Such decisions are made by appropriate state officials and NS is not privy to their records.

Interrogatory and Document Request No. 14:

For each identified grade crossing, provide all documents in Norfolk Southern's possession addressing:

a) the advantages and/or disadvantages of such grade separations; and

b) the cost of such grade separations.

NS objects to this interrogatory as vague and ambiguous with respect to the phrase "each identified grade crossing." NS construes that phrase to refer to grade crossings, if any, identified in response to Interrogatory No. 13 immediately above. Without waiving any objection, and subject to the foregoing objection and the General Objections stated above, NS responds as follows:

See response to Interrogatory No. 13.

Interrogatory and Document Request No. 15:

Provide copies of:

a) all written complaints, concerns, or the like relating to Norfolk Southern operations over the Line Segment on or after January 1, 1992; and

b) all responses to the items provided in response to (a).

NS objects to this interrogatory as vague and ambiguous with respect to the phrase "or the like". NS also objects to this interrogatory to the extent that it seeks information pertaining to events occurring prior to January 1, 1995. Without waiving any objection, and subject to the foregoing objections and the General Objections stated above, NS responds as follows:

NS will place responsive documents, if any, in the Applicants' depository.

Interrogatory and Document Request No. 16:

Provide all documents supporting the description of Cuyahoga County in the Supplemental Environmental Report (Volume 6), page 85.

Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

Responsive documents will be placed in Applicants' depository.

Interrogatory and Document Request No. 17:

Is Norfolk Southern aware of any inconsistent application or other proposal in this proceeding that would result in a use of the Line Segment different from that proposed by Norfolk Southern? If so, identify that proposal.

NS objects to this interrogatory as vague and ambiguous, with respect to the phrases "other proposal" and "use of the Line Segment different from that proposed by Norfolk Southern." Without waiving any objection, and subject to the foregoing objection and the General Objections stated above, NS responds as follows:

A number of parties have served descriptions of anticipated inconsistent or responsive applications and public comments in Finance Docket No. 33388, and those documents speak for themselves.

Interrogatory and Document Request No. 18:

Describe the proposed use of what appears to be a water route between Buffalo and Detroit that Norfolk Southern will acquire from Conrail.

NS objects to this interrogatory as vague and ambiguous, with respect to the phrase "what appears to be a water level route between Buffalo and Detroit." Without waiving any objection, and subject to the foregoing objection and the General Objections stated above, NS responds as follows:

In order to clarify this request, counsel for requester provided NS with a copy of a Rand-McNally map. The "water level route" referred to in this interrogatory and shown on that map appears to be the shore of Lake Erie and not a rail route.

Interrogatory and Document Request No. 19:

Describe all benefits to Norfolk Southern relating to the increased usage of the Line Segment. To the extent possible, provide dollar qualifications [sic] for such benefits.

NS objects to this interrogatory as vague and ambiguous in its use of the term "benefits." NS also objects to this interrogatory as requiring an unduly burdensome and oppressive special study, which NS is not required to perform. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

The requested information is not available, as NS has not undertaken to calculate benefits to itself on a line segment-by-line segment basis.

Interrogatory and Document Request No. 20:

Provide all documents dated January 1, 1992 and after discussing compliance with federal, state, and/or local environmental requirements which specifically relate to the Line Segment or any portion thereof.

NS objects to this interrogatory as overly broad. NS also objects to this interrogatory to the extent that it seeks documents for periods prior to January 1, 1995, and NS is not producing any such documents. Without waiving any objection, and subject to the foregoing objection and the General Objections stated above, NS responds as follows:

Responsive documents, if any, will be placed in the Applicants' depository.

Interrogatory and Document Request No. 21:

Provide all documents dated January 1, 1992 and after discussing post-acquisition locomotive and motor vehicle exhaust emissions on or near any portion of the Line Segment.

NS objects to this interrogatory to the extent that it seeks documents for periods prior to January 1, 1995, and NS is not producing any such documents. Without waiving any objection, and subject to the foregoing objection and the General Objections stated above, NS responds as follows:

Air quality impacts in Cuyahoga County are discussed in Environmental Report Volume 6B, Section 8.1.1.1.2 (as corrected by the Supplemental Environmental Report).

Interrogatory and Document Request No. 22:

Provide all documents discussing train operational considerations on the Line Segment that may affect post-acquisition street vehicle safety, pedestrian safety, hazardous materials transport, potential for derailment, impact on biological resources, traffic delay, noise, emergency vehicle response time, or local economic factors.

NS objects to this interrogatory to the extent that it seeks documents for periods prior to January 1, 1995, and NS is not producing any such documents. NS also objects to this interrogatory as vague and ambiguous. Without waiving any objection, and subject to the foregoing objection and the General Objections stated above, NS responds as follows:

The Environmental Report submitted by the Applicants discusses the anticipated impacts, if any, of projected train operations on the Line Segment on, among other things, noise, transportation and safety (including grade crossing safety and hazardous materials transport).

Interrogatory and Document Request No. 23:

Describe all known environmental consequences of increasing traffic over the Line Segment to the extent proposed and provide all documents in Norfolk Southern's possession relating to such consequences.

NS objects to this request as vague and ambiguous, unduly burdensome and overly broad. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

The Applicants have complied with the Board's environmental regulations by submitting an Environmental Report as Volume 6 of the Application. The Environmental Report constitutes NS' description of the consequences of increasing traffic over the Line

Segment on the various environmental factors to be considered by the Board. The Board' Section of Environmental Analysis ("SEA") and its independent environmental consultants are in the process of analyzing and evaluating the environmental consequences of the operational changes proposed in the Application. To the extent that SEA has required any further data from NS for purposes of such analysis, such data will be described and discussed in the Draft Environmental Impact Statement ("DEIS") that will be issued by the Board. The DEIS will also address mitigation measures, if any, being considered and/or recommended by the Board.

Interrogatory and Document Request No. 24:

Describe all known methods of eliminating and/or mitigating all known environmental consequences of increasing traffic over the Line Segment to the extent proposed and provide all documents relating to such methods. Your response to this question should include all documents containing standards and other methods of evaluating whether grade crossing protection of various types, including grade separations, pedestrian grade separations, and pedestrian gates, should be in place.

NS objects to this request as vague and ambiguous, unduly burdensome and overly broad. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

See response to Request No. 23.

Interrogatory and Document Request No. 25:

For each described method provide:

a) the known cost;

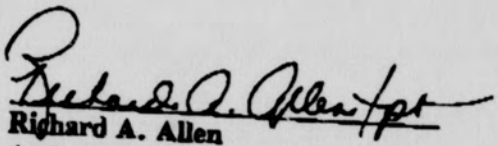
b) whether and when Norfolk Southern will implement the method; and

c) as applicable, why Norfolk Southern will not implement the method.

NS objects to this request as vague and ambiguous, unduly burdensome and overly broad. Without waiving any objection, and subject to the General Objections stated above, NS responds as follows:

See response to Request No. 23.

Respectfully submitted,



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October 14, 1997

CERTIFICATE OF SERVICE

I, Patricia E. Bruce, certify that on October 14, 1997 I caused to be served by facsimile service a true and correct copy of the foregoing NS-32, Norfolk Southern's Responses to First Set of Interrogatories and First Set of Requests for Production of Documents from City of Bay Village, City of Rocky River, and City of Lakewood to Norfolk Southern (BRL-1) on all parties that have submitted to the Applicants a Request to be Placed on the Restricted Service List in STB Finance Docket No. 33388.

Patricia E. Bruce

Dated: October 14, 1997

NORFOLK SOUTHERN

Norfolk Southern Corporation
8 North Jefferson Street
Roanoke, Virginia 24042-0073
703 981-4055

F. H. McIntyre
Assistant Vice President
Signal & Electrical Department

June 12, 1989
061-10.110; 061-10.11
061-10.111 061-10.11
061-10.112

Mr. C. R. Tripp, P. E., Admin.
Bureau of External Contracts
Ohio D O T
P. O. Box 899
Columbus, OH 43216-0899

Dear Mr. Tripp:

We are currently holding in abeyance eight (8) grade crossing warning device projects in the City of Lakewood, Cuyahoga County. These eight are Cove Avenue, Brockley Avenue, Bunts Road, Bonnieview Avenue, Belle Avenue, Hurd Avenue, Webb Avenue and Manor Park Avenue.

By letters of July 17, 1986; December 18, 1986; and March 6, 1987, you were requested to approve the upgrading of all crossings in the City of Lakewood due to the close proximity of the crossings; i.e., 27 grade crossings in 2.48 miles. As noted in Mr. Janosko's letter of July 17, 1986, all crossings can be done for a 35% increase over the cost to upgrade the first five crossings listed above.

Would you please review the Lakewood situation and advise your approval to proceed as previously recommended.

Very truly yours,

F. H. McIntyre

F. H. McIntyre

bc: Ms. T. B. Mahan - Your letter of May 30, 1989, referred to AFE 85-4239. AFE's 85-4237, 85-4238, 85-4240 and 85-4241 should have similar charges. It is recommended that ODOT be billed for all charges incurred to date on these projects. If ODOT does not respond, we will cancel the proejcts and the AFE's.

3747b/sd(dwd)

PUBLIC
NS-67-P-02406

US OFFICE PRODUCTS

death like that. Fess up. Ever wonder how the guy piloting that mile-long behemoth feels about your little stunt?

We took a ride on the train to get a firsthand perspective of the engineers who have to deal with the serious injuries and death that occur when their trains flatten an eruditous motorist or a kid playing chicken. We almost got a story we didn't want to report.

It's Wednesday November 25, the day before Thanksgiving, and the Norfolk Southern 146 is passing through Lakewood. It's 8:30 am, a tense time for the engineer and conductor of this eastbound train because they have to pass 33 crossings in a three-mile stretch. Cars are darting across the tracks and dozens of kids walking to school are also crossing. A group of sixth through eighth graders from Horace Mann Middle School decide to break across the tracks at Webb Road, about 75 feet in front of the train. The tracks are wet from last night's rain. Suddenly, one of the kids slips between the east and westbound tracks. My god, we're going to hit him! Our hearts leap from our chests. There is a gasp. There is no way to stop.

Just as suddenly, the kid picks himself up and scrambles off the track. Norfolk Southern 146 misses him by three feet, and as we pass, the kid is still squirming his way off the other side of the tracks, while his buddies remain frozen just out of harm's way.

Chances are the people in that train cab have hit and killed people like you. It happens more often than any of us would like to think. But when a car or a person makes a move across or alongside those tracks with a train in sight, the railroaders are helpless. It takes a fully loaded train going 35 miles per hour about half a mile to stop.

Thirteen-year-old Brian Kochan didn't have to die. He's the Middleburg Heights boy who was killed last month on the Conrail tracks near the Stadium. You heard the story. He and his father Michael were leaving a Sunday afternoon Browns game and, like hundreds of other fans, were walking along the railroad tracks. Brian was hit by a Conrail train and died that evening. Conrail says they should have been using the Mall C footbridge. His family and friends are in agony.

Conrail reports that its trains were involved in 413 accidents that caused 41 fatalities across the country in 1991. The total for all railroads in Ohio for 1991 were 324 accidents and 55 deaths. In Cuyahoga County during the last five years there have been 35 accidents between cars, people and trains on Norfolk Southern tracks alone. Twenty-two of those accidents have happened in Lakewood. One person was killed on Lakewood's tracks in 1989. Danny Gilber, Norfolk Southern's manager of grade crossing safety, says that the three-mile stretch through Lakewood is "one of the most dangerous in our 15,000 miles of track."

Crossing safety is not the only problem in Lakewood. Norfolk Southern says trespassing is increasing. Trespass-

It takes a fully loaded train going 35 miles per hour about half a mile to stop.

who was piloting the train that almost hit the Lakewood child during our trip. "You always have that sickening feeling in your stomach that you're going to hit them," he says. "The only thing I can do is use the extra whistle and bell ringing, and hopefully they'll get out of the way."

Zap has been riding the rails for 29 years and has had his share of accidents. Two months ago he hit a semi in Conneaut because the trucker wasn't looking. The truck's fuel tank exploded. The driver was seriously injured.

Zap admits he has been involved in a few fatalities. How does he deal with it? "There's nothing you can do about it," he says, his voice tightening. "I don't really talk about it, you know." The fact that he's helpless to stop or swerve when a car or kid darts in front of his train doesn't make it any easier.

Bob Kahle was the conductor during our morning ride. The conductor is in charge of the train, making sure the tracks are clear, the right switches are thrown, and the cars reach their proper destination. Bob has likewise seen too much injury and death in 20 years working for the railroad.

He thinks about the guy who apparently wasn't looking and simply walked in front of his train in Ashtabula. The words come just as slowly when talking about the deaths of two Geneva women. "We had two young women in Geneva who took the one's sister to work," he recalls. "All three came up over the tracks, and the one being dropped off at work told her sister, who was driving, that she should slow down and look for trains when she goes back across the tracks. They dropped the sister off and came right back up over the crossing and we hit 'em. Killed both of 'em."

Kahle says accidents like that happen quickly, but the image of it never leaves your mind. "It's like a slap in the face it happens so fast," he says. "There's glass and ballast flying and the train kicks the car up and you keep dragging it with you and you can see the people inside, which is even worse."

What can be done to prevent accidents? One thing the railroads are trying to do is increase their safety margin by shutting down tracks. Next week, for example, Norfolk Southern plans to close one of its two east-west tracks running through Lakewood and the rest of northeast Ohio. With all traffic on one track, there's less of a chance a motorist, thinking the tracks are clear after seeing one train pass, will proceed across and get hit by a train coming from the other direction.

Another move is the closing of crossings. Norfolk Southern has proposed eliminating a dozen or so of the 33 crossings in Lakewood. Turnarounds would have to be built for the dead-end streets. Some city officials are supportive of the move. Public hearings are underway.

However, railroaders say accidents are a part of the job. They say it's a question of time. Motorists and pedestrians are constantly trying to save time and the trains can't stop in time.

061-10.115
061-10.229
061-10.114
061-10.111
061-10.110
061-10.112
061-10.113
061-10.356
12-19-91

WCJ

Please find attached five letters written to the state of Ohio regarding projects that have been approved in Lakewood, Ohio. As information, state approval for five of the projects (Bonnieview, Cove, Belle, Brockley, Bunts) was received in 1985 and approval for Nicholson was received 10/21/91. We have been trying to convince the state that a corridor approach to these projects would be more sensible from an engineering and monetary standpoint. The difficulties that must be addressed when upgrading only a select few among the twenty-eight includes existing AFTAC frequency conflicts ,limitations caused by having to couple around insulated joints, and additional line work.

Presently we are waiting for the state to approve two additional estimates for Hird Ave. and Manor Park. Assuming state's approval the total monies approved for the eight Lakewood projects would be $1,064,453. DLH and I feel that for this amount of money all 28 crossings (W. 117th to Webb St.) could have a minimum of a 3000GCP box installed thus eliminating approximately 40 insulated joints and also allowing us to expand our frequency selection. Most of the active circuits on the pole line could also be eliminated and I understand that the pole line thru Lakewood has been an on going problem, even to the extent of getting the FRA involved.

Train traffic thru 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. The implementation of the GCPs would make for a safer and more manageable crossing warning system as a whole.

If the state chooses at a later time to upgrade other crossings in Lakewood, it would be less expensive because some of the complications will have already been addressed.

I was unable to locate the state's response to FHM's most recent letter of 6/27/90 although I vaguely recall the possibility of running across same which directed us to continue with the projects on an individual basis. Regardless, having discussed this with ATH, we both agreed that since the approved monies have the potential of increasing with the Hird Ave. and Manor Park projects we should approach the state one last time for their consideration of the 28 crossings.

ATH mentioned getting Danny Gilbert involved since "corridor " projects have recently become a catch word for many states.

LAW OFFICES

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December 8, 1997

VIA FACSIMILE

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

Re: Motion of City of Bay Village, City of Rocky River, and City of Lakewood to Compel Discovery Responses from Norfolk Southern and Request for a Discovery Conference (BRL-4)

Dear Mr. Kalish:

As a follow-up to our telephone conversations concerning supplementation and clarification of Norfolk Southern's (NS) responses to the BRL's First Set of Discovery Requests (BRL-1), Norfolk Southern is supplying the following information:

Interrogatory and Document Request No.1: Identify for each of the Base Case 13.5 trains per day and each of the Post-Acquisition Case 34.1 trains per day: c) the average length; d) the average speed of the train over each grade crossing in Bay Village, Rocky River and Lakewood; (f) the time of day the train does and/or will operate over the Line Segment; (k) the maximum, minimum, and average time that the train has and/or will block each grade crossing within Bay Village, Rocky River and Lakewood.

NS responded to subsection 1(c) as follows: "The average length of trains operating over the Line Segment for the Base Case and Post Acquisition Case are approximately 4100 feet and approximately 3900 feet respectively. To clarify, this reference is to the Avon Lake to Cloggsville link.

As to subsection 1(d), NS responded that the speeds given were average train speeds. In order to clarify NS' response, NS explained that these speeds were actually maximum speeds. BRL now seeks verification as to whether NS knows the average speeds for these trains. 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.

As to subsection 1(f), NS responded that reference to train schedules placed in its document depository. BRL explained that the reason for this request was to determine variation in noise levels throughout the day, as well as possible delays to street traffic, and that a response giving an overall average, i.e., the percentage of trains that would be travelling over the Line Segment during certain times throughout the day, would be acceptable to BRL. In order to determine noise levels at specific hours of the day, NS would be required to conduct a special study which it has not undertaken as of this date.

In regard to subsection 1(k), NS responded by depositing responsive documents in its depository. BRL questions how NS could know the average time a train will block a grade crossing, if it has not computed average speeds. The information set forth in these documents was computed as follows:

a) For each crossing the "average" speed over the crossing (which actually was maximum speed) either 35 MPH, 50 MPH or 60 MPH was used to compute the minimum blockage time in seconds for each case.

> Example for Hird Avenue - 35 MPH = 51.33 feet per second (FPS) - 3900 foot train (merged case) ÷ 51.33 FPS = 76 seconds minimum blockage time.

b) For each crossing, the slowest speed over the crossing (25 MPH for crossings in or within a train length of the siding, otherwise same as maximum speed) was used to compute the maximum blockage time in seconds for each case.

> Example for Columbia Road - 25 MPH = 36.66 feet per second (FPS) - 3900 foot train length (merged case) ÷ 36.66 FPS = 106 seconds maximum blockage time.

c) The maximum blockage times were adjusted for those crossings within the zones of deceleration or acceleration. (Linda St., Morwood St., Bassett Rd., and Bradley Road) to take into account typical deceleration and acceleration rates, which were estimated based on typical train weights and motive power.

d) Average blockage times were computed using the maximum and minimum blockage times, and assuming that

- 20% of trains take the siding and run at 25 MPH
- 80% of trains remain on the main track, and run at 50 or 60 MPH west of MP B194.5

- 26% of the trains are piggyback in the Base Case (22% in Post Acquisition Case) and can run at 60 MPH

- 54% of the trains are merchandise in the Base Case (58% in Post Acquisition Case) and can run at 50 MPH

Interrogatory and Document Request No. 6(a):

For each identified grade crossing that is protected by gates and lights, provide the amount of time (a) after the passing of the train that the gates are fully up.

NS responded that protective devises in place meet both NS and FRA requirements and that gates are electronically programmed to begin to lower less than four (4) seconds after lights begin to flash. Although Norfolk Southern maintains that it provided a full and complete response to this request, NS further clarified its response to Interrogatory No. 6(a) as follows:

> In general, gates will 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. These times meet both NS and FRA requirements to allow for a minimum of 20 seconds warning time prior to the arrival of a train at a crossing.

In response to BRL's subsequent question about the above clarification, the three seconds is in addition to the 22 to 27 second variance.

Interrogatory and Document Request No. 9: Provide all documents used to calculate the proposed increase of 20.6 trains per day.

NS responded by reference to work papers supporting the NS Operating Plan, and the Verified Statements of D. Michael Mohan and John H. Williams. BRL subsequently requested a more specific reference, and NS agreed to determine that portion of NS' work papers supporting the Errata to Primary Application (CSX/NS-15). Those NS work papers may be found in the NS document depository at NS-32-HC-00001-000092; NS-32-CO-00001-00104; and NS-31-P-00001-00006.

Interrogatory and Document Request No. 10: Provide all projections of numbers and lengths of trains per day over

this Line Segment for a) the first 12 months post-acquisition; and b) each of years two through ten post-acquisition.

NS responded to subsections (a) and (b) by reference to Volume 3B, Figure D.6-2. In addition, NS explained that train lengths could be found in the work papers supporting the NS Operating Plan. BRL has requested a more specific reference, and NS agreed to review the matter.

In order to segregate information on the Line Segment, NS would be required to review all of the referenced work papers. NS continues to believe that it has provided a full response to this request and once again notes that this identical response has been given to numerous discovery requests without objection.

Interrogatory and Document Request No. 16: Provide all documents supporting the description of Cuyahoga County in the Supplemental Environmental Report (Volume 6), page 85.

Documents NS-67-P-00063 and 00064 are responsive to this request. Copies of these documents are attached.

I trust that this satisfies all follow-up questions to NS responses to BRL-1. NS will respond to Interrogatory Nos. 21 through 25 of BRL-1 on a rolling basis commencing the week of December 15, 1997 and has agreed to provide the entirety of its response as quickly as reasonably practical.

Sincerely,

Patricia E. Bruce

Enclosure

Piti, GU (Primary)
Piti (P)
Tanguisson, GU (Primary)
Tanguisson (P)

PUBLIC

INDIANA (Region V)
La Porte Co, IN (Primary)
La Porte Co (P)
Lake County, IN (Primary)
Lake Co (P)
Marion County: Lawrence, Washington, and Warrant Townships (Primary)
Marion Co (P)
Vigo Co, IN (Primary)
Vigo Co
Wayne Co, IN (Primary)
Wayne Co (P)
Boston, Center, Franklin, Wayne, and Webster Twps

IOWA (Region VII)
Muscatine Co, IA (Primary)
Muscatine Co (P)

KENTUCKY (Region IV)
Boyd County (part) (Primary)
Boyd Co (P)
Muhlenberg Co, KY (Secondary)
Muhlenberg Co

MAINE (Region I)
Millinocket AQCR 109, ME (Primary)
Penobscot Co (P)

MINNESOTA (Region V)
Rochester (Olmsted County), MN (Primary)
Olmsted Co (P)
City of Rochester
St. Paul Park Area, MN (Primary)
Dakota Co (P)
Washington Co (P)

MONTANA (Region VIII)
East Helena Area (Lewis and Clark Co.), MT (Primary, Secondary)
Lewis And Clark Co (P)
Laurel Area (Yellowstone County), MT (Primary)
Yellowstone Co (P)

NEVADA (Region IX)
Central Steptoe Valley (White Pine Co.), NV (Primary)
White Pine Co (P)

NEW JERSEY (Region II)
Warren Co, NJ (Primary, Secondary)
Warren Co (P)
Northeast Pennsylvania-Upper Delaware Valley Interstate AQCR

NEW MEXICO (Region VI)
Grant Co, NM (Primary)

Grant Co (P)

OHIO (Region V)
Addison Township (Gallia County), OH (Secondary)
Gallia Co (P)
Addison Township
Cuyahoga Co, OH (Primary)
Cuyahoga Co (P)
Franklin Township (Coshocton County), OH (Primary)
Coshocton Co (P)
Franklin Township

Silver Bow Co (P)
Columbia Falls, MT (Moderate)
Flat Head Co (P)
Flathead County, Whitefish and vicinity (Moderate)
Flat Head Co (P)
Kalispell, MT (Moderate)
Flat Head Co (P)
Lame Deer, MT (Moderate)
Rosebud Co (P)
Libby, MT (Moderate)
Lincoln Co (P)
Missoula, MT (Moderate)
Missoula Co (P)
Polson, MT (Moderate)
Lake Co (P)
Roman, MT (Moderate)
Lake Co (P)
Sandare County (part); Thompson Falls and vicinity (Moderate)
Sandare Co (P)

NEVADA (Region IX)
Clark Co, NV (Serious)
Clark Co (P)
Las Vegas
Washoe Co, NV (Moderate)
Washoe Co (P)
Reno

NEW MEXICO (Region VI)
Anthony, NM (Moderate)
Dona Ana Co (P)

NEW YORK (Region II)
New York Co, NY (Moderate)
New York Co

OHIO (Region V)
Cuyahoga Co, OR (Moderate)
Cuyahoga Co
Jefferson Co, OH (Moderate)
Jefferson Co (P)
Mingo Junction

OREGON (Region X)
Eugene-Springfield, OR (Moderate)
Lane Co (P)
Grants Pass, OR (Moderate)
Josephine Co (P)
Klamath Falls, OR (Moderate)
Klamath Co (P)
LaGrande, OR (Moderate)
Union Co (P)
Lake Co, OR (Moderate)
Lake Co (P)
Lakeview
Lane Co, OR (Moderate)
Lane Co (P)
Oakridge
Medford-Ashland, OR (Moderate)
Jackson Co (P)

PENNSYLVANIA (Region III)
Clairton & 4 Boroughs, PA (Moderate)
Allegheny Co (P)

PUERTO RICO (Region II)
Mun. of Guaynabo, PR (Moderate)
Guaynabo Co (P)

PUBLIC

NS-67-P-00064

04/29/97 16:00:57

BAY VILLAGE

N & S RAILROAD CROSSING - DOVER RD.

DATE 1998	TRAIN NUMBER	TIME HRS.	DIRECTION	START TO FINISH	SPEED
1-22	4901	1625	E/B	2 MIN 15 SEC	32 MPH
1-23	3531	1158	E/B	45 SEC	48 MPH
1-23	9012	1321	E/B	55 SEC	56 MPH
1-24	3278	2057	W/B	1 MIN 35 SEC	42 MPH
1-26	3548	1940	W/B	2 MIN 50 SEC	40 MPH
1-26	3544	1951	E/B	55 SEC	54 MPH
1-26	8563	2235	E/B	2 MIN	37 MPH
1-26	8648	2249	E/B	3 MIN 30 SEC	18 MPH
1-27	8712	0152	E/B	2 MIN 30 SEC	23 MPH

38.9
Average

LAKEWOOD DEPARTMENTAL CORRESPONDENCE

DATE January 22, 1998

SUBJECT OPERATIONS

TO Capt. D. Clark DEPT

FROM Chief Biscotti DEPT

As we discussed earlier, our attorney has asked us to gather certain data on train traffic through the Westshore area. We must time train traffic and clock each train's speed during the dates and times listed below. Rocky River and Bay Village will obtain similar data on each train. Please have someone assigned to sit at Bunts and the tracks during the time periods indicated and obtain the required data. Bay Village will notify us on E/B trains via LEERN . We will notify River and Bay regarding W/B trains via LEERN. I placed a stop watch in the OIC's office to time the trains. The Laser Unit is to be used to measure the speed. Forward data to me on January 26, 1998.

KOEHLER

Thursday, January 22nd - 1400 hrs. - 1800 hrs.

	SPEED	ELAPSED TIME
1647 HRS.	24	2:26

Friday, January 23rd - 1000 hrs. - 1400 hrs.

	SPEED	ELAPSED TIME
1000 (EB)	32	1:37
1215 (EB)	34	0:50
1339 (EB)	34	1:06

Sunday, January 25th - 1800 hrs. - 2200 hrs. PIETCH

	SPEED	ELAPSED TIME
2031	30	2:21

cc: Lt. Bronish
Lt. Malley
Sara Fagnilli

LAKEWOOD

DEPARTMENTAL CORRESPONDENCE

Date January 26, 1998

Subject OPERATIONS - Railroad

To Lt. Malley, Lt. Sabala Dep't

From Capt. D. Clark Dep't

The railroad survey conducted did not produce sufficient data, and will have to be continued. Please assign someone to sit at Bunts and the tracks during the below time period and obtain the required data. We will be notified of EB trains, and will have to notify Rocky River and Bay Village of WB trains, via LEERN. The stopwatch is still in the OIC office, and the laser should be used to measure speed. Forward the data to me on 1-27-98.

Monday, January 26th - 1800 hrs. - until five (5) trains have been measured

	TIME	SPEED	ELAPSED TIME
	1819	29	01:44
	2008	31	00:34
	2255	28	02:03
	2318	30	01:44
1-27-98	0228	34	0:41

30.6
Average

ROCKY RIVER **POLICE DEPARTMENT COMMUNICATION**

TO: Chief Wagner FROM: Lt Sharp

SUBJECT: TRAIN DETAIL DATE: 1/22/98

Sir,

A train detail was conducted on 1/22/98 at the Elmwood crossing from 1530hrs until 1800hrs. One train passed eastbound at 1630hrs. The train entered view at 34mph and started to slow at 1632hrs. Two minutes and thirty seconds into timing it's passing the train stopped. At 1633hrs the train started to move eastbound. At 1634hrs the train cleared the Elmwood crossing traveling at 8mph. The crossing was blocked for four minutes and fifty seconds.

Note: While sitting near the tracks the ground could be felt shaking as the train passed. I looked at the brick house to the northwest of the crossing as it appeared to have had mortar repairs. I wonder if the train shaking the ground contributed to this condition and if additional trains would result in increased property damage?

Respectfully,

Lt Robert Sharp

REPLY

SIGNED:

Rocky River POLICE DEPARTMENT COMMUNICATION

TO: Lt. T. Hudec FROM: Sgt. R. Juergens

SUBJECT: N&S Detail DATE: 1/22/98

The undersigned worked the above mentioned detail on 1/22/98 from 1320 Hrs. to 1535 Hrs. at Elmwood/Tracks.

TRAIN INFO

DIRECTION	SPEED	CROSSING BLOCKED	TOTAL TIME BLOCKED
E/B	31mph	13:30:54 to 13:32:19	1min 25sec

The undersigned relieved at 1535 Hrs. by Lt. Sharp.

Sgt. R. Juergens RJ

REPLY FROM BAY VILLAGE Jan 22, 1998

E/B 4:25pm Eng # 4901 32 mph Crossing blocked for 2 min/15 sec

SIGNED:

ROCKY RIVER POLICE DEPARTMENT COMMUNICATION

TO: Lt. T. Hudec FROM: Sgt. R. Juergens

SUBJECT: N&S Detail DATE: 1/23/98

The undersigned worked the above mentioned detail on 1/23/98 from 0940 Hrs. to 1400 Hrs. at Elmwood/Tracks.

TRAIN INFO

DIRECTION	SPEED	CROSSING BLOCKED	TOTAL TIME BLOCKED
E/B	32mph	09:44:48 to 09:46:58	2min 10sec
E/B	32mph	12:02:06 to 12:03:11	1min 5sec
E/B	28mph	13:24:57 to 13:26:43	1min 46sec

Sgt. R. Juergens

Reply: FROM BAY VILLAGE Jan 23,1998

E/B	SPEED	CROSSING BLOCKED	
Eng # 3531	48 mph	45 sec	11:58am
Eng # 9012	56 mph	55 sec	1:21 pm

Signed:

Rocky River POLICE DEPARTMENT COMMUNICATION

TO: Lt. Budec FROM: Lt. Sharp

SUBJECT: TRAIN DETAIL DATE: 01/27/98

On 01/26/98, a train detail was conducted at the Linda Street crossing starting at 1800hrs.

TRAIN #	DIRECTION	TIME	TIME BLOCKED	TIME CLEAR	SPEED-START/END	NOTES
1	W	1828	6:13	1834	9/16	TWO VEHICLES DROVE AROUND LOWERED GATES
2	E	1957	2:40	1959	23/13	
3	E	2241	6:53	2247	25/8	
4	E	2304	6:24	2311	17/8	
5	W	0233-1/27	3:09	0236	10/10	

KSharp

Reply:

23 Average for all Rocky River entries

Signed:

ROCKY RIVER

POLICE DEPARTMENT COMMUNICATION

TO: Lt. Hudec FROM: Ptl. C. Dennison #16

SUBJECT: Train Traffic Survey DATE: 1/25/98

Lt. Hudec,

The detail conducted with Lakewood PD #215 and Bay Village PD #1126 ended at 2200 Hrs with the following results:

RRPD: 1 W/B train @ 2045 hours covered the intersection of Wagar and the tracks for 5:22 and cleared @ varied from speeds at less than 10 mph up to 28 mph.

LPD: @ 2039 hours covered the intersection of Bunts and the tracks for 2:21 and had a speed of 30 mph

BVPD: @ 2052 hours covered the intersection of Dover and the tracks for 1:35 and had a speed of 42 mph.

Ptl C. Dennison

Reply:

Signed:

ZUCKERT, SCOUTT & RASENBERGER, L.L.P.
888 SEVENTEENTH STREET, N.W.
WASHINGTON, D.C. 20006-3939
TELEPHONE: (202) 298-8660
FACSIMILES: (202) 342-0683
(202) 342-1316

October 30, 1997

VIA FACSIMILE

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

Re: Norfolk Southern's Response to the First Set of Interrogatories and First Set of Document Production Requests from the City of Bay Village, City of Rocky River and City of Lakewood (BRL-1)

Dear Mr. Kalish:

We are writing as a follow-up to our telephone conversation the week before last regarding questions that you had about Norfolk Southern's Responses to the First Set of Interrogatories and First Set of Document Production Requests from the City of Bay Village, City of Rocky River and City of Lakewood (BRL-1).

As an initial clarification, Norfolk Southern responded to BRL-1 with reference to the links lying within the Cleveland OH to Vermilion OH line segment from milepost B 185.6 (Cloggsville) to milepost B 205.5 (Avon Lake) because these links are located within the Cities of Bay Village, Rocky River and Lakewood (the "Three Cities"). Norfolk Southern provided detailed responses to several of these requests with reference to both the links lying within the Three Cities, as well as to the Cleveland to Vermillion line segment as a whole.

You questioned why Norfolk Southern's response to Interrogatory and Document Request No. 1(d) did not match the mileposts for Cloggsville to Avon Lake. The response to Interrogatory and Document Request No. 1(d) referred to certain grade crossings lying within the Three Cities, and therefore there was not a one to one correlation with the beginning (Cloggsville) and ending (Avon Lake) mileposts referenced in General Objection No. 11. As further clarification, the train speeds referenced in response to Interrogatory No. 1(d) are maximum train speeds.

In response to your inquiries regarding identification of trains that are projected to travel over the Cleveland to

Vermillion line segment, we again refer you to the projected train schedules that were placed in Applicants depository on August 29, 1997. See Norfolk Southern's Response to Interrogatory and Document Request No. 1(f). 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. Norfolk Southern objects to performing and is not required to perform such a study. We understand that all information necessary to identify these trains is contained in the projected train schedules.

You claimed that Norfolk Southern's response to Interrogatory and Document Request No. 6(a) was incomplete. Norfolk Southern maintains that it provided a full and complete response to this request. However, to address your concerns, we are providing the following information. In general, gates will 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. These times meet both NS and FRA requirements to allow for a minimum of 20 seconds warning time prior to the arrival of a train at a crossing.

In regard to the issue of documents to be produced by Norfolk Southern, we note that on October 17th we faxed you documents Bates stamped NS-67-P-00034-00035 in response to Interrogatory and Document Request No. 1. These documents show the maximum, minimum and average time that a train has and/or will block each grade crossing within the Three Cities. On October 21st, we faxed you documents Bates stamped NS-67-P-00036-00062 and NS-67-CO-00011-00027 in response to Interrogatory and Document Request No. 11. As per your request, we provided documents from Norfolk Southern's files, as well as documents that would be available to your clients from the FRA. Also, in response to your request, documents were provided for the period 1992 to the present. We would like to confirm at this time that Norfolk Southern is not in possession of any documents dated after January 1, 1992 that would be responsive to Interrogatory and Document Request No. 20 specifically relating to the Three Cities. However, in response to an identical request from the City of Cleveland, Norfolk Southern placed responsive documents associated with lines through the City of Cleveland in Applicants' depository last week. See NS-73-CO-00095-00126. We will place documents responsive to Interrogatory and Document Request No. 16 in the depository shortly, and we are in the process of trying to locate a more legible copy of the document produced in response to Interrogatory and Document Request Nos. 4

and 5. We will let you know if we are successful in locating same.

Finally, you questioned the fact that NS had objected to producing documents based on the assertion that certain requested information was provided to the Board's Section of Environmental Analysis ("SEA") and its independent environmental consultants on an administratively confidential basis. With regard to this matter, we will be back in touch with you shortly.

We trust that this addresses the issues discussed during our telephone call. If you have any questions, please do not hesitate to contact us.

Sincerely,

Scott M. Zimmerman
Patricia E. Bruce

US OFFICE PRODUCTS

LAW OFFICES
ZUCKERT, SCOUTT & RASENBERGER, L.L.P.
888 SEVENTEENTH STREET, N.W.
WASHINGTON, D.C. 20006-3939
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FACSIMILES: (202) 342-0683
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December 12, 1997

VIA FACSIMILE

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

Re: Second Set of Interrogatories and Second Set of Requests for Production of Documents from City of Bay Village, City of Rocky River, and City of Lakewood to Norfolk Southern

Dear Mr. Kalish:

In response to BRL's follow-up questions to its first set of interrogatories and document requests, Norfolk Southern (NS) provides the information below. NS hereby incorporates its general objections set forth in NS-32 (Norfolk Southern's Responses to the First Set of Document Requests from the City of Bay Village, City of Rocky River, and City of Lakewood to Norfolk Southern).

In NS-32, response 1(a), NS explained that while the NS Operating Plan shows 13.5 trains per day for the base case and 34.1 trains per day for the post acquisition case, the comparable train counts for the Cloggsville-Avon Lake segment are 12.3 and 31.9 respectively. BRL has requested NS to supplement this information. NS responds as follows:

(a) The beginning milepost number for the Cleveland to Vermillion line segment is B 185.6; the ending milepost number is 222.7.

(b) Train counts previously provided include though trains and, where operated, local freight trains. Switching movements are not included, although there are no regularly scheduled switching movements on the link in Bay Village, Rocky River, and Lakewood.

(c) The number of trains operating over the Cloggsville-Avon Lake segment is less than the number of trains operating over the Cleveland-Vermillion line segment because more trains run west of Avon Lake to handle traffic between Bellevue and

industries in the Avon Lake area. Because train statistics for the Cleveland-Vermillion line segment were calculated by taking the mileage-weighted average of the statistics for the underlying links (one of which is the Cloggsville-Avon Lake link), the higher number of trains on the westerly links resulted in a higher number for the Cleveland-Vermillion line segment.

(d) The average number of trains operated by Norfolk Southern in the Base Case over crossings at Linda Street and Morewood Street was the same.

(e) As mentioned in the response to 26(b) above, there are no regularly scheduled switching movements in Bay Village, Rocky River, or Lakewood. Trains originating in, or destined to these points are very light and sporadic. (In fact there were none in 1996, the most recent year for which full data is available). If there were any local traffic for these points, it would be picked up or delivered by a road switcher operating out of Sheffield Yard at Avon Lake.

In NS-32, response 1(c), NS provided the average lengths of trains operating over the Line Segment. NS provides the following additional information with regard to that response:

(a) The average train lengths provided are not applicable to both the Cleveland to Vermillion line segment and the Cloggsville to Avon Lake line segment.

(b) Average train lengths are as follows:

	Base Case	Post Acquisition Case
Cleveland-Vermillion line segment	4200 ft	3900 ft.
Cloggsville-Avon Lake link	4100 ft	3900 ft.

(c) The response number 1(c) was calculated by using the following formula:

Daily cars over [illegible] daily trains over link x average freight car length [illegible] ft) + length of typical motive power (3 units x 70 ft). Resulting estimates were rounded to the nearest 100 feet.

In NS-32, response 1(d), NS noted that trains entering and running through Clague Siding are limited to 25 miles per hour. With regard to this response, NS provides the following information:

ZUCKERT, SCOUTT & RASENBERGER, L.L.P.

Steven Kalish, Esq.
December 12, 1997

(a) Trains would stop on the mainline east or west of Clague Siding only in unusual or emergency situations. An example of such a situation would be if the remotely controlled switches and signals controlling entry to the siding were not working properly, a train might stop to allow crew members to ascertain that it was safe to proceed.

(b) No trains are scheduled to stop on the mainline track. The number of emergency or unusual stops was not calculated by NS. To make such a calculation, NS would be required to undertake a burdensome special study which it is not required to perform.

(c) The number of trains entering Clague Siding was not calculated by NS. For purposes of responding to BRL's prior interrogatories, it was assumed that 20% of trains passing the Clague Siding would enter it.

(d) Trains entering Clague Siding from the east begin to reduce speed at about MP B192.5, depending on train handling characteristics of an individual train and the operating practices of the individual engineer.

(e) Trains leaving Clague Siding toward the east would reach maximum allowable mainline track speed at about MP B192.5, depending upon whether or not the train is accelerating from a stop, and depending on tonnage of the particular train and motive power assigned to the train.

It should be noted that maximum allowable track speed is not governed by law, but is set by the railroad taking into account track condition and operating conditions, subject to FRA requirements regarding track class.

(f) Columbia Road is crossed at grade by the Clague Siding. Trains would not stop on the crossing except in unusual or emergency situations, because the siding extends 2.3 miles east of the crossing, and this distance is adequate to contain most trains operated by NS.

(g) Locomotives of trains stopped in the siding are not normally shut down. The average amount of time that each train remains in the siding was not calculated by NS, and would be difficult to calculate since train operating times vary somewhat from day to day. Dispatchers do attempt to minimize delay in sidings for a number of reasons.

A train waiting for a meet with another train is somewhat like an automobile waiting at a red light. The engine is

normally not shut down, since starting causes wear and tear on the equipment and subjects the locomotive to the risk of not being able to start when required. In addition, the starting process for a locomotive produces noise and smoke which in most cases would be greater than if the locomotive is allowed to idle while waiting.

In NS-32, NS responded to 1(e) by stating that in the post acquisition case, an average of 89 carloads per day of hazardous materials will operate over the Line Segment. A systemwide study of hazardous material movements performed by NS resulted in this number. This study identified any commodity material with a 2-digit Standard Transportation Commodity Code of 48 or 49. NS did not identify the particular commodities of hazardous material passing through Bay Village, Rocky River and Lakewood, and to do so would require an extensive and burdensome special study which NS is not required to perform.

In response to BRL Interrogatory No. 30, NS refers BRL to its previous response and supplemental response to Interrogatory No. 1(f).

NS operating rules require locomotive horns to initiate sounding the grade crossing signal when they pass a "whistle post" that is placed along the right of way in advance of each crossing or group of crossings. These whistle posts are erected at varying distances from crossings, depending on typical train speeds, train handling characteristics and gradients to ensure that adequate warning is given to crossing users before the train reaches the crossing.

Locomotives cease sounding their horn as soon as the locomotive has passed through the crossing, or the last crossing in a group of closely spaced crossings.

The "Cloggsville Connection" noted in NS-32 response number 7(c) is a route connecting the NS Buffalo line and the Conrail Chicago line on the west side of Cleveland. It utilizes a connecting track from the NS Buffalo line at Cloggsville, a portion of NS' Cleveland Belt Line, a portion of Conrail's Clark Branch, and a route through Conrail's Rockport Yard to reach the Chicago line at Control Point 190.

In practice, this route is not now useable as a through route for the operation of fast or heavy freight trains for a number of reasons -

- Substandard track
- Limited overhead clearances

ZUCKERT, SCOUTT & RASENBERGER, L.L.P.

Steven Kalish, Esq.
December 12, 1997

- Heavy gradients
- Lack of appropriate track connections at several points
- Lack of signal system
- Deteriorated bridges
- Lack of a main track around Rockport Yard.

Estimates of the cost of constructing necessary facilities are nearly $25 million.

In response to interrogatory 1(k), NS showed the same minimum, average and maximum street blockage times for each crossing between Hird Avenue on the east and Webb Road on the west, but showed different figures for Linda Street and Bradley Road. Figures for Linda Street through Bradley Road are different because, west of Linda Street, some trains are slowing for or accelerating from Clague Siding, which has a lower speed limit. In addition, allowable speeds for intermodal trains are higher than for merchandise trains west of MP B194-5.

NS-67-C0-00011 may be reclassified as "public." With regard to that document, a code key will be provided to BRL shortly.

NS objects to BRL's request for information and documents regarding the manner in which it has worked with state and local officials to seek improvements in grade crossing safety along the West Shore corridor including Bay Village, Rocky River and Lakewood as overly burdensome. NS notes that recent work has been undertaken to improve crossing safety including installation of gates at a number of crossings in the area. We are in the process of gathering responsive information, and responsive documents, if any, will be made available to BRL shortly.

The attached map shows the Cleveland Vermillion line segment and the NS Chicago-Pittsburgh line.

We trust that this fully responds to BRL's most recent requests.

Sincerely,

Patricia E. Bruce

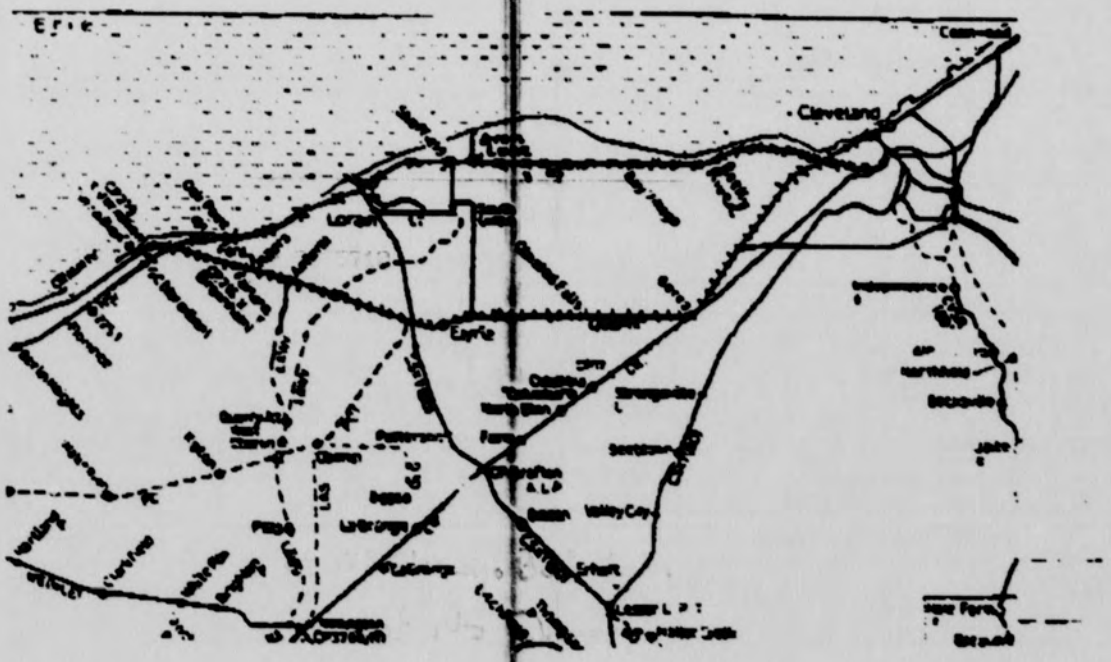
Richard A. Allen
Patricia E. Bruce

Enclosure

,c-0

Cleveland-Vermilion (Part of NS Chicago-Buffalo Line) ****

Cleveland-Vermilion (Part of NS Chicago-Pittsburg Line) ++++++++++



Business

Some Cleveland residents find living on the wrong side of the tracks costly

1/29/98 To Sally From Steve cc: Paul

by Catherine Gilfether

Ellie Luchini is waiting for the colonial on a very desirable street in Lakewood to "pop."

It's been three long weeks without one showing. Luchini needs to look no further than the railroad tracks that pass by the house.

"It's a darling house that should have sold by now," said Luchini, a REALTOR® with Realty One in Bay Village. "It is priced perfectly--$119,000--and completely redone. But people are concerned about the safety issues, sound and noise."

That's a common theme that is being replayed among REALTORS® and community residents in the past months since Norfolk Southern Corporation has announced plans to merge with another rail line, CSX Corporation, in an effort to triple rail traffic through Northern Ohio cities including Lorain, Avon Lake, Bay Village, Lakewood and others.

"Some people love trains, the sound of them eight times a day is fine," said Luchini. "But the idea of them passing by 24 times a day just doesn't work."

Residents have spearheaded groups to oppose the plan, held meetings that have drawn more than 600 people with poignant stories about children killed by passing trains, and gotten the support of local and state politicians. Letter writing campaigns have sent out an estimated 7,000 letters to politicians and rail officials with the Surface Transportation Board--the official federal body that will make a determination on the proposed merger and increased rail traffic.

For Stephen FitzGerald, the battle with Norfolk Southern has proven to be "the irony of a lifetime." Just six days after he began his job as community relations director for Lakewood, the city's mayor came to him asking him to help organize a task force exploring the rail issue. FitzGerald had just left a longtime job doing publicity for the International Brotherhood of Locomotive Engineers. "I thought I had left that industry behind," he said. In fact, his 11 years with the rail industry helped him route information to the appropriate people in a timely fashion.

Another irony: the proposal by Norfolk Southern has seemed to strengthen the neighborhood quality of Lakewood, said FitzGerald. "The tone is one of activism and mobilism," he said. "People who live within a half mile of the tracks have lived comfortably with the status quo." It is the possible change and tripling of rail traffic that has them up in arms and, in fact, prior to the issue being raised few people even paid attention to the railroad tracks, or living near them. Greater Cleveland RTA has proposed commuter lines into Cleveland and should that possibility happen, living near the tracks could actually be a boon, said FitzGerald. That possibility is a separate issue from the tripled freight traffic and details would need to be worked out with Norfolk Southern and RTA.

> *'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. That can be advantageous to the buyer if they are willing to put up with the noise, dirt and safety issues.'*

REALTOR® Paula Reed, with Lucien & Associates, Century 21, in Lakewood, says the possibility of tripling of rail traffic has affected at least three potential sales. "Houses next to the tracks are virtually unsellable," she said. "I have seen four listings in Lakewood that are directly on the tracks that have sold for substantially less dollars. That can be advantageous to the buyer if they are willing to put up with the noise, dirt and safety issues."

Many complain the increased rail traffic would cut off residents from needed safety services in the event of medical emergencies. Then too, they are worried about greater threat to life and limb since children and adults both continue to walk the tracks, despite increased educational efforts to inform them of safety hazards.

Bay Village resident Barbara O'Patry built her dream home near the tracks, knowing full well they ran by her home. "It's my dream house, but after a while it becomes your nightmare," she said. "Sure I knew the tracks were already here, but had I known what the plans were to increase traffic, I would have never built here. We are left with white elephants and I will not put another cent into my house. This destroys the appreciation in our house, destroys the neighborhood and increases turnover--if someone can sell their home."

The Norfolk Southern proposal is still before the Surface Transportation Board, which can rule on the matter with or without conditions imposed on the rail companies. Norfolk Southern spokesman Pat McCune said the projected train increase would be incremental over a two to five-year period.

He added, "Any time there is an increase in the number of trains planned...that could possibly have an impact on real estate. I don't have firsthand knowledge of home values depreciating. I could say to those concerned that this is the safest railroad in the nation and we have been for eight years...I know that doesn't ease concerns. But it is real, it is legitimate and safety is our company mantra that we strive for each and every year."

STB FD • 33388 2-2-98 K • 185493

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WRITER'S DIRECT DIAL
(202) 986-8050

February 2, 1998

VIA HAND DELIVERY

Mr. Vernon A. Williams, Secretary
Office of the Secretary
Case Control Unit
Surface Transportation Board
1925 K Street, N.W., Seventh Floor
Washington, DC 20423-0001

ATTN: Ms. Elaine K. Kaiser
Chief, Section of Environmental Analysis
Environmental Filing

Re: CSX Corp./Norfolk Southern Corp. -- Control and Operating Leases/Agreement -- Conrail; Finance Docket No. 33388

Dear Secretary Williams:

Enclosed are the originals and 10 copies each of the highly confidential and public versions of the "Comments of Indianapolis Power & Light Company on Draft Environmental Impact Statement" (IP&L-10) for filing in the above-referenced proceeding. The highly confidential pleading is being filed under seal in accordance with the Protective Order. Also enclosed is a 3.5" diskette containing the documentation in WordPerfect format.

Please date stamp and return the enclosed three additional copies of each pleading via our messenger.

Very truly yours,

Michael F. McBride
Brenda Durham

Attorneys for Indianapolis Power & Light Company

Enclosures

PUBLIC VERSION

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 LEASES/AGREEMENTS --
CONRAIL INC. AND CONSOLIDATED RAIL CORPORATION

COMMENTS OF INDIANAPOLIS POWER & LIGHT COMPANY ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

Indianapolis Power & Light Company ("IPL") is pleased to submit these comments on the draft Environmental Impact Statement ("DEIS") prepared by the Board's Environmental Section and its outside consultants and served on December 12, 1997. IPL's comments specifically concern Indianapolis, but also respond to a serious flaw in the analysis that IPL first pointed out in its August 6, 1997 comments on the scope of the DEIS (see Attachment 1). The DEIS does not specifically refer to those August 6, 1997 comments. Those comments took the position, which IPL believes to be irrefutable, that the Board cannot rely on an arbitrary threshold to avoid considering air quality (or other) environmental impacts if the impacts would or could constitute a violation of law. Here, the Board would commit reversible error if it were not to consider any adverse impact on air quality in an area such as Indianapolis that may be in violation of the Clean Air Act because of increased emissions caused by the proposed transaction as recommended in IPL's August 6, 1997 letter.

The serious flaw in the DEIS is that it sets thresholds for analysis of air quality impacts of the proposed transaction, below which it deems the impacts not worthy of consideration. On that basis, it concludes that there will not be an air quality impact of the transaction on Indianapolis. While IPL understands the temptation to set thresholds under NEPA, the use of such thresholds here would allow the Board to ignore clear violations of the Clean Air Act, as is the case in Indianapolis, as well as unnecessary inefficiencies that the transaction creates that would cause unnecessary air pollution. Indianapolis now has in place a "Nozone" program because it has been in violation of the National Ambient Air Quality Standard for ozone in the past, but it has barely achieved compliance with the ozone standards under the Clean Air Act. Despite its progress, Indianapolis is likely to again be in violation of the applicable ozone ambient air quality standard on certain days, particularly during warm periods. See Attachment 2 and 59 Fed. Reg. 54,395 (October 31, 1994). Increased emissions of diesel fumes from NS's and CSX's locomotives would therefore necessarily cause additional violations, thus requiring mitigation by the City of Indianapolis, Marion County, and the State of Indiana. If NS and CSX are proposing unnecessary inefficiencies that can be corrected, the Board has an obligation to make those corrections to avoid violations of the ozone NAAQS in Indianapolis.

Applicants are caught in a trap of their own making. CSX and NS agreed, between the two of them and without governmental direction, to divide Conrail in a manner that would result in CSX acquiring the Conrail line from Cleveland to St. Louis. As a result, Indianapolis would be by far the largest "2 to 1" region affected by the proposed transaction. Thus, while today Indianapolis is a "2-railroad town," if the transaction proposed by Applicants is approved without change, Indianapolis will become essentially captive to CSX. Even NS

Witness Mohan admitted that NS will not have much of a presence in Indianapolis. See CSX/NS-20, Application Vol. 3 p. 28 ("Although Indianapolis will be primarily served by CSX. . .").

In order to keep NS from being more competitive with CSX in Indianapolis, what CSX apparently insisted on and NS ultimately accepted in Indianapolis was that NS would acquire only overhead trackage rights (except for rights to directly serve one shipper, a General Motors plant), which would necessitate all other NS traffic to use only the Hawthorne Yard in the southeast part of Indianapolis. That may well make sense for non-trainload traffic, which by definition makes use of such yards for blocking, switching, and rearranging cars, but it makes no sense for unit trains of coal to IPL's two powerplants located in Indianapolis, the Stout and Perry K Plants. Clearly, the most efficient arrangement for handling of IPL's coal unit trains would be to take them directly into and out of IPL's powerplants in Indianapolis. (IPL has an interest in the efficient handling of the cars since it owns the cars that are used to take coal to the Perry K and Stout Plants.) CSX and NS have not proposed to do that in their Application (CSX/NS-18, et al., filed June 23, 1997), but Indiana Southern Railroad, Inc. ("Indiana Southern") has made precisely that proposal for its trains in its Responsive Application in Finance Docket No. 33388 (Sub-No. 76). If Indiana Southern and Norfolk Southern are granted direct access through trackage rights to IPL's Stout and Perry K Plants for coal shipments in which they participate, that would solve the problem. (A schematic illustrating Indiana Southern's proposal trackage rights to Stout and Perry K is attached as Attachment 3.)

IPL's Stout Plant is served today by The Indiana Rail Road directly, and by Indiana Southern/Conrail via switch over Indiana Rail Road via an interchange track at Raymond Street, not via Hawthorne Yard. Indiana Rail Road is an 89-percent owned subsidiary of CSX.

CSX/NS-18, Application Vol. 1, p. 271. Since the switch charge for IPL's trains is fixed, IPL has 2-railroad access to the Stout Plant. IPL also has demonstrated that it is feasible to build out from the Stout Plant to Conrail today. See IPL-3 (filed Oct. 21, 1997). Despite all of this, Applicants refuse to concede that Stout is a "2 to 1" destination, insisting that CSX and Indiana Rail Road are independent companies, even though under common ownership, and thus that they will compete with one another. E.g., Aug. 21, 1997 Dep'n of CSX Vice President Raymond L. Sharp at 14-16; Aug. 24, 1997 Dep'n Tr. of CSX Vice President William Hart at 30-31. Even without the "build out," which Applicants dispute the feasibility of, the Stout Plant qualifies as a "2 to 1" destination under the Board's standards in prior mergers, and under Mr. Hart's own standard (see CSX/NS-19, Application Vol. 2A, Hart V.S. at 146), because of the access to Conrail via switching.

In their Rebuttal filed on December 15, 1997, CSX and NS now appear to have abandoned the fiction that CSX will compete with Indiana Rail Road at the Stout Plant. Instead, they have adopted a new theory, that IPL's real competition for CSX/Indiana Rail Road at the Stout Plant is (a) truck and (b) its alleged ability to generate power at lower cost elsewhere on the system to "discipline" CSX/Indiana Rail Road.

In his Rebuttal Verified Statement (CSX/NS-177 at pp. P-518-21 and P-650-56) Mr. John Orrison, Vice President-Service Design for CSX, described the existing interchanges in Indianapolis, but nowhere claimed that Indiana Southern's proposed trackage rights into the Stout and Perry K Plants would be inefficient, or that it would not be more efficient to route NS-origin coal to Stout via an interchange west of the Stout Plant, rather than through the Hawthorne Yard. See id., especially p. P-656 (admitting that NS would have to use Hawthorne Yard for

deliveries to Stout, rather than having access directly or via the interchange with Indiana Rail Road at Raymond Street).

At IPL's Perry K Plant, the situation is almost the mirror image of that at the Stout Plant. Perry K is served directly by Conrail, but Indiana Rail Road can also serve the Plant via switching over the Conrail line. Thus, Applicants have conceded that the Perry K Plant is a "2 to 1" point entitling it to protective conditions if the proposed acquisition of Conrail is approved. Moreover, since the coal pile at Perry K is quite small, IPL maintains an emergency coal pile for Perry K at its Stout Plant (which is just a few miles away), and can (and has) trucked coal to Perry K from Stout. (The coal that IPL has trucked to Perry K from Stout is a relatively small percentage of the coal delivered to Stout and a relatively small percentage of the coal used at Perry K. IPL generally trucks coal only during emergencies.)

Despite Applicants' apparent concession that Perry K is a "2 to 1" destination, they insist that, if NS serves the Perry K or Stout Plant, it must take IPL's unit trains of coal to the Hawthorne Yard, rather than connect directly with Indiana Rail Road via switching, as Conrail can today, or be allowed to serve the Stout Plant directly via a build-out (since NS's trackage rights in Indianapolis would be only "overhead," and not local). Applicants would preclude efficient connections, as exist today, in favor of routing that traffic through Hawthorne Yard. Even Applicants conceded that there is absolutely no reason to route unit trains into and out of a Yard used for blocking and reconfiguring rail cars for less-than-trainload movements.

For example, NS Vice President Fox admitted in his deposition that the efficient routing of coal to IPL's Stout Plant, if such coal were to be used, would be <u>not</u> to route unit trains in and out of the Hawthorne Yard, but rather that NS would switch crews from NS to CSX at some point west of the Stout Plant. Tr. 149-52. But <u>the Application</u> provides no such assurance,

as Mr. Fox admitted, since it provides for routing such traffic into and out of the Hawthorne Yard. If Indiana Southern were to seek to have NS serve the Perry K Plant, it would not be able to do so where Indiana Southern now interchanges with Conrail (the "GM Yard" on the west side of Indianapolis), but rather the Hawthorne Yard (which, as we have said, is on the east side of Indianapolis).

If NS were to participate in a movement of western, low-sulfur coal to IPL's Stout Plant, the efficient routing, as NS Vice President Fox conceded, would be some point west of Stout, not the Hawthorne Yard east of Stout. And if NS were to participate in a movement of coal to the Perry K Plant, the efficient routing, and thus the one that would minimize air pollution, would be to allow NS to interchange the traffic where Conrail now interchanges the traffic -- in the "GM Yard," as it is referred to locally, on the west side of Indianapolis, where Indiana Southern's traffic now terminates, where it can be interchanged on the shortest available route into the Perry K Plant, which is in downtown Indianapolis.

The impact of the transaction proposed by CSX and NS on Indianapolis' air pollution should not be underestimated. CSX's public statements have indicated that it projects an increase in business to Indianapolis as well as diversion of a portion of Cincinnati traffic through Indianapolis. This information is contradicted by CSX Witness Orrison who contends, despite public statements to the contrary, that total traffic in Indianapolis will decrease or remain the same post-transaction. The uncertainty of increased traffic in Indianapolis coupled with CSX's promotion of trucking coal to IPL's Perry K and Stout Plants as IPL's competitive alternative justifies close scrutiny of the potential for any increase in ozone in Indianapolis and placement of responsibility for mitigation of any such increase on Applicants.

The Transaction Proposed by CSX and NS for Indianapolis
Would Be Inefficient and Could Cause Unnecessary Air Pollution

IPL therefore has three simple points to make. One, CSX has contended vigorously that IPL's real competition at the Stout Plant is truck, not Indiana Southern/Conrail (via switching). See, e.g., CSX/NS-177, Applicants' Rebuttal, Vol. 2A, pp. HC-194-204, Verified Statement of Thomas G. Hoback, and Vol. 2B, pp. HC- 500-22, Verified Statement of Gerald E. Vaninetti. If CSX succeeds in eliminating IPL's rail-to-rail competition at Stout from Indiana Southern/Conrail vis-a-vis CSX/Indiana Rail Road, it will expose IPL to the risk of having to resort to trucks to create competition for coal transportation at Stout, whereas in 1995 and 1996, when IPL was in negotiation with Indiana Rail Road leading up to the contract that took effect in 1997, IPL used rail, not truck, via Indiana Southern/Conrail and then switch via Indiana Rail Road, to compete with Indiana Rail Road. If CSX's analysis were correct (which it is not), IPL would have had to use trucks to compete with Indiana Rail Road during 1995-96.

Moreover, if CSX's analysis is correct that IPL's only effective competition for transportation of coal to the Stout Plant if the transaction proposed by CSX and NS is approved, IPL would need approximately 60,000 coal trucks to move the coal that the Stout Plant uses annually and that the rail mode carries almost exclusively now. This would amount to about 460 loaded and empty coal trucks going into and out of the Stout Plant, every business day of the year, or about 17-18 an hour, every hour of each business day, through numerous small towns and ultimately over an already congested, two-lane street in the City of Indianapolis, Harding Street, which is the only street providing truck access to the Stout Plant.

Two, the transaction will be unnecessarily inefficient in Indianapolis, especially for IPL's unit trains of coal, which should be handled as they are today -- directly into IPL's Plants via the most efficient connection, rather than inefficiently, into the Hawthorne Yard.

Moreover, if NS is to participate in a movement of coal to either the Stout or Perry K Plants, it should be able to do so as Conrail could today, with direct access to Stout via a build-out, or through switch on The Indiana Rail Road on the interchange track at Raymond Street, or with the ability to interchange with CSX/Indiana Rail Road west of Stout or at the interchange at Raymond Street with Indiana Rail Road. These efficient routings would necessarily reduce air pollution.

Third, due to the proposed transaction, projected increases in Indianapolis business as well as rerouting of Cincinnati traffic through Indianapolis threaten an increase in ozone in Indianapolis which should be closely scrutinized so that Applicants are required to bear the burden of any mitigation.

1. Additional Truck Traffic.

Through the testimony of Messrs. Hoback and Vaninetti cited above, CSX and NS insist that IPL's real competition for CSX/Indiana Rail Road at the Stout Plant is the truck mode, not Indiana Southern/Conrail. See CSX/NS-176, pp. HC-55-57. IPL vigorously disputes Applicants' contention, since as IPL informed CSX, all coal moved to Stout in 1995-97 via rail, not truck, but if the Board were to accept Applicants' contention, it follows that the result of the proposed transaction could be to cause IPL to move its coal to Stout via truck instead of by rail. Since IPL uses about 1.5 million tons of coal per year at Stout, using trucks with a capacity of about 25 tons, IPL would need about 60,000 coal trucks per year to move the same amount of coal. That means about 230 loaded, and 230 empty, trucks coming and going, 24 hours per day, on every business day, Monday-Friday, throughout the year, most likely through the congested I-465/Harding Street interchange. Applicants' Witness Vaninetti privately advised CP Rail and

See Attachment 4. He was right.

The Stout Plant is in the City of Indianapolis, which has the usual city traffic, and the only street access is via two-lane Harding Street. Moreover, such an immense number of coal trucks could have an even greater impact on the small towns that the coal trucks would have to drive through from one or more of the mines in southern Indiana that supply the Stout Plant to that Plant, several of which are more than 100 miles from the Stout Plant. Aside from the immense damage that such trucks could do to Harding Street, the congestion that such additional truck traffic would cause would add considerable air pollution to Indianapolis. Because Indianapolis has been in violation of the NAAQS for ozone in the recent past, and is barely in compliance at the present time, any increase in air pollution, particularly a substantial increase in nitrogen oxides (a precursor of smog and a likely cause of ozone) as would inevitably occur from adding that much truck traffic and resulting congestion to the City's roads, would very likely cause violations of the Clean Air Act which Indianapolis would then be required to mitigate. Given CSX's position, if the result of the transaction is to force IPL to use trucks at Stout, the Board cannot satisfy NEPA without considering and quantifying the impact on air quality of the trucks.

CSX's and NS's position that IPL can and should use trucks rather than rail to deliver coal to the Stout Plant to create competition flies in the face of their contrary arguments in all other forums than this one. CSX's and NS's trade association, the Association of American Railroads ("AAR"), as recently as November 1997 has been opposing legislative changes that would accommodate higher and wider trucks. In its position paper opposing use of trucks to move goods that can also move by rail, AAR stated (see Attachment 5):

"The Rail Industry's Position on Bigger Trucks"

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"Opposition to Bigger Trucks Is Widespread"

"But railroads aren't alone in opposing bigger trucks. So do many highway safety advocates, citizen groups and environmentalists. . . ."

"Why Bigger Trucks Are a Bad Idea"

"* Bigger trucks would increase highway congestion. . . ."

"*Bigger trucks would create additional highway safety problems. . . ."

"*Bigger trucks would harm the environment. . . ."

"Bigger trucks may be more fuel efficient than smaller trucks, but they are not nearly as fuel efficient as trains. Every ton of freight diverted from rail to highway increases emissions of air pollutants by factors as high as nine."

Rather than to allow the need for such mitigation to arise, it is the Board's responsibility to approve this proposed transaction only if it prevents IPL's effective loss of its current **rail-to-rail** competition from Indiana Southern/Conrail to CSX/Indiana Rail Road at Stout. Thus, it should condition the transaction, as IPL proposed in IPL-3 (filed October 21, 1997) and in testimony supporting Indiana Southern's Responsive Application (ISRR-9, filed January 14, 1998), to permit Indiana Southern or NS or both to have direct access to the Stout Plant, or at least to allow Indiana Southern and Norfolk Southern to interchange IPL's coal unit trains without requiring that they be moved into and out of the Hawthorne Yard.

2. The Transaction Proposed by CSX and NS for Indianapolis Will Be Inefficient.

It is quite obvious that, for three reasons, routing IPL's and others' unit trains of coal into and out of the Hawthorne Yard would be inefficient. One, the trains are not routed there today, demonstrating that efficient operating practices dictate another routing. Two, NS

and CSX are considering expanding the Hawthorne Yard, thus demonstrating that it is not capable of handling the traffic to be routed there. And three, such trains would cause congestion in the Yard, making the handling of all other trains in that Yard more inefficient.

The solution is simply to do what NS Witness Fox admitted would likely be done, and interchange IPL's coal unit trains somewhere other than Hawthorne Yard. (As stated previously, IPL has an interest in efficient handling of the cars because it owns the railcars used for moving its coal to Perry K and Stout Plants. Moreover, inefficiencies inevitably raise the railroads' costs, which could be passed along to the shipper.) The most efficient routing is as the trains are or would be routed today, i.e., (a) for Indiana Southern-origin traffic to Perry K, through the "GM Yard" directly to the Perry K Plant, whether Indiana Southern, NS, or CSX ends up delivering it, and for Indiana Rail Road-origin traffic into the Perry K Plant, at the existing interchange between Indiana Rail Road and Conrail, and (b) for Indiana Southern-origin coal into Stout, at the same existing interchange between Conrail and Indiana Rail Road, and the same interchange or some other efficient interchange west of Stout for NS-origin coal into Stout. Since the Applicants concede that those would be the most efficient means of serving those Plants, and they are or would be the approaches used today, they should be required, rather than what the Applicants propose.

3. Indianapolis Air Pollution.

Lastly, CSX's public statements have contended that it will increase business in Indianapolis, including rerouting traffic that now goes through Cincinnati (see, for example Attachment 6). The remaining Conrail business will presumably go to Norfolk Southern (there is no other railroad that could move it). If so, the Board's decision not to include Marion County,

Indiana among those areas whose air will be adversely affected by the proposed transaction is wrong.

Despite these public claims that congestion elsewhere (e.g., Cincinnati) will be relieved by rerouting traffic through Indianapolis, CSX Witness Orrison appears to contend that total traffic in Indianapolis post-transaction will decrease. Frankly, we find this testimony impossible to reconcile with claims about rerouting traffic through Indianapolis. But, given the uncertainty, the Board must adopt a condition to any approval of the transaction requiring that Applicants mitigate any increase in ozone in Indianapolis associated with increased traffic due to the proposed transaction.

Conclusion

For the foregoing reasons, the Board should (1) mitigate the adverse environmental impact of the transaction proposed by CSX and NS by preserving IPL's right to be served directly at the Stout Plant by Indiana Southern or NS or both, as it could be served via Conrail today, so that IPL is not compelled to seriously consider moving some or all of the coal to the Stout Plant by using up to 60,000 loaded coal trucks each year into, and 60,000 empty coal trucks out of, the Stout Plant on a very busy, two-lane, City street, as well as through numerous small towns in Indiana between the coal mines from which IPL buys its coal and the Stout Plant, (2) mitigate the adverse environmental impact on air quality in Indianapolis by requiring CSX to permit NS to interchange and deliver IPL's coal trains in the most efficient manner, as is done today and would be done if Conrail were to have remained an independent railroad serving IPL's powerplants in Indianapolis, rather than to route IPL's coal trains into and out of the Hawthorne Yard, and (3) mitigate the adverse environmental impact on air quality in

Indianapolis by requiring that the Applicants mitigate any increase in ozone in Indianapolis associated with increased traffic due to the proposed transaction.

Respectfully submitted,

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Due Date: February 2, 1998
Dated: February 2, 1998

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August 6, 1997

VIA HAND DELIVERY

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

ATTN: Ms. Elaine K. Kaiser
Chief, Section of
Environmental Analysis
Environmental Filing

Re: CSX Corp./Norfolk Southern Corp. -- Control and and Operating Leases/Agreements -- Conrail; Finance Docket No. 33388

Dear Ms. Kaiser:

Indianapolis Power & Light Company ("IP&L") and The Ohio Valley Coal Company ("Ohio Valley") hereby submit their comments on the scope of the draft Environmental Impact Statement ("EIS").

IP&L and Ohio Valley respectfully request that the Section of Environmental Analysis ("SEA") consider the potential adverse impacts on air quality in those regions in both Indiana and Ohio which will experience changes in service after the Conrail acquisition. Such areas will experience increases in switching activity, and, therefore, increases in air pollution, especially ozone and particulates. Accordingly, the EIS should

examine the post-Acquisition impacts in those counties which may become nonattainment areas for ozone as a result of the increased switching. Thus, the EIS should include an analysis of the air quality impacts in Marion County, Indiana (i.e., Indianapolis), as well as in Cuyahoga, Lake and Ashtabula Counties, Ohio (i.e., Cleveland and areas to the east). Because the Clean Air Act is administered at the state and local level, it follows that the Board's analysis must concern the same level of impacts, and not just focus on the overall impacts (as the Applicants would apparently have it).

IP&L and Ohio Valley further request that the EIS propose suitable measures to mitigate adverse environmental impacts in these counties, as well as any other protective conditions which may be necessary. These may include trackage rights for origin carriers to avoid unnecessary switching.

Respectfully submitted,

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cc: Dennis G. Lyons, Esq.
Samuel M. Sipe, Jr., Esq.
Paul A. Cunningham, Esq.
Richard A. Allen, Esq.

Did you know about Nozone Action Days?

How do you know when ozone levels are high? Well, that takes an in-depth knowledge of meteorology, chemistry and physics. But in case you don't have the time or the library card for that sort of thing, we've done the hard work for you. We've created the symbol below for days when ozone levels are high. When you see it on TV, a **Nozone Action Day** has been declared. This means your help is vital. And you'll find it's no big deal to do your part. Just keep in mind a few simple things you can do.

- Use mass transit instead of taking your car
- Carpool with friends or coworkers
- Reduce the amount of time spent in drive-thru lines
- Refrain from refilling or topping off your gas tank until after dusk
- Avoid mowing your lawn until after 6 p.m.
- Combine errands to reduce the number of miles driven
- Use electricity instead of gasoline powered lawn equipment
- Keep your car properly tuned up
- Walk or ride a bicycle on short trips
- Use water based instead of oil based paints and solvents
- Avoid using aerosols

OZONE

It's not rocket science. It's not over your head.

You can do your part to keep Indy's air clean by taking the bus or carpooling.

To find out more information about transit routes, call **634-3344.**

For more information on carpooling, call **327-RIDE.**

call **toll free** for more information.

1~888~DJA~KNOW

Did you know

OZONE

It's not rocket science. It's not over your head.

did you know Indianapolis has the cleanest air it's had in years?

Believe it or not, for 17 years, Indianapolis was on a list of cities with ozone pollution. But thanks to a number of efforts by the city and industries to reduce pollutants, our air is the cleanest it's been in years.

did you know even though our air is clean, we're still at risk for air pollution?

According to the EPA, Indianapolis has cleaner air. However, last summer, there were two days when the levels of an air pollutant called ozone were too high. This may seem insignificant, but if this becomes a trend, Indianapolis and surrounding counties will have an ozone problem.

did you know that in order to keep ozone levels down, we need your help?

We have come so far in the battle to reduce ozone. But to further our success, we need your help. Sixty percent of ozone formation is due to the activity of individuals, not industry. So if we all do our part, Indianapolis can continue to have cleaner air.

did you know there's good ozone and bad ozone?

Whether ozone is "good" or "bad" depends on where it is. Ozone in the ozone layer is desirable. We all know this. We've all switched to rollons and non-aerosol sprays in an effort to preserve it. But there is a different kind of ozone problem that most people don't know about — man-made ozone near the earth's surface.

- Ozone near the earth's surface is a major constituent of smog.
- Ozone is formed when emissions from vehicles, lawnmowers and industry react in the air around us.
- Ozone is made in the presence of sunlight, especially during hot weather.
- Sixty percent of this ozone is created by the public, not business and industry.
- Ozone is colorless.

did you know that "bad" ozone can have damaging effects?

- Of all air pollutants, ozone is the most detrimental to plant life.
- According to the EPA, in 1995 ozone pollution caused more than $2.7 billion in crop damage nationwide.
- In high concentrations, ozone can be a health hazard.

did you know if Indianapolis and the surrounding counties continue to have high ozone readings, we may face additional federal regulations?

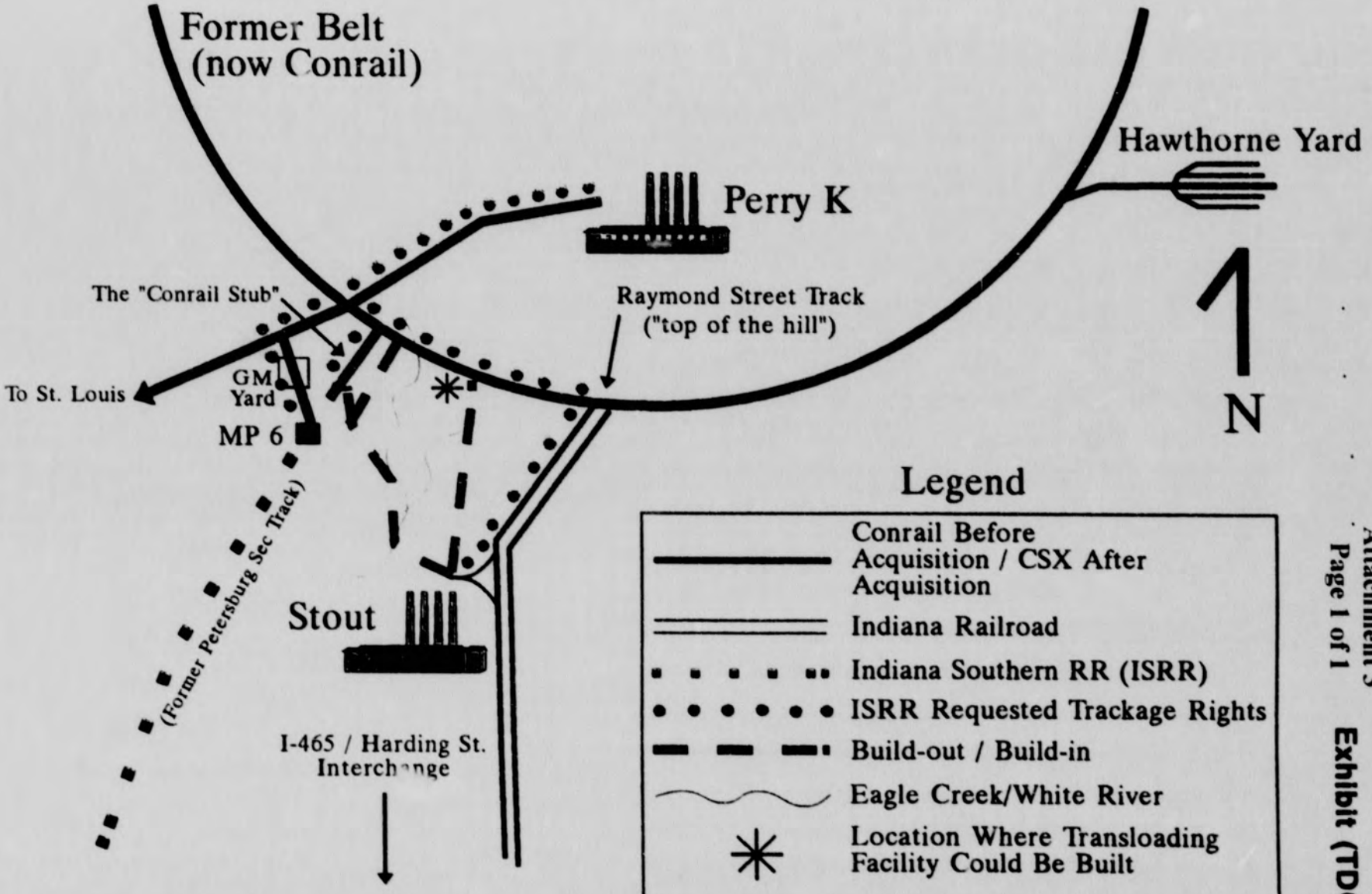
Indianapolis has managed to govern itself well without the intervention of Uncle Sam. As long as we continue to do so, we can avoid strict, costly federal regulations such as:

- Restrictions on the location and expansion of industry that would slow economic growth by keeping new job opportunities from coming to the area.
- Mandatory vehicle inspection and maintenance programs for cars and trucks.
- Mandatory controls at gas pumps that would result in higher gas prices.

did you know that you can make a difference?

You've heard this line a thousand times. And every time you hear or read it, you're probably a little skeptical. It's hard to imagine that waiting to mow your lawn until dusk is going to make a difference in reducing air pollution. But remember our combined actions were powerful enough to create air pollution. So if we all do our part to act responsibly about ozone, especially on Nozone Action Days, our actions will surely be able to reduce it.

Schematic of Routes to IPL Power Plants



Attachment 3
Page 1 of 1
Exhibit (TDC-1)

OMITTED

The Rail Industry's Position on Bigger Trucks

Some elements of the trucking industry want to give states the right to put even bigger trucks on the nation's highways — double and triple trailer rigs known as longer combination vehicles (LCVs) that can be up to 120 feet long. For very valid reasons of self-interest, the railroad industry opposes this proposal.

Opposition to Bigger Trucks Is Widespread

But railroads aren't alone in opposing bigger trucks. So do many highway safety advocates, citizen groups and environmentalists — the American Automobile Association, the Arkansas Trucking Association, the Mississippi Trucking Association, American Public Health Association, Clean Air Council, Environmental Defense Fund, General Federation of Women's Clubs, International Association of Chiefs of Police, League of American Bicyclists, National Association of Police Organizations, National Association of Women Highway Safety Leaders, National League of Cities, National Sheriffs' Association and the National Trauma Foundation among others. In fact, between 75 and 80 percent of all Americans oppose permitting bigger trucks on all highways, according to a poll by the Tarrance Group.

Why Bigger Trucks Are a Bad Idea

Here are some of the key reasons why so many people and groups oppose bigger trucks:

- **Bigger trucks would increase highway congestion.** A single LCV has the same impact on highway congestion and traffic delay as 10 to 12 automobiles. Bigger trucks also would divert to highways several hundred million tons of freight currently moving by rail, adding millions of truck miles to highways that are already congested.

- **LCVs underpay their highway cost responsibility.** A triple trailer operating at the most common registered weight of 115,000 pounds pays only 70 percent of its federal highway cost responsibility, according to the most recent federal highway cost allocation study.

- **Bigger trucks would create additional highway safety problems.** Diverting freight from rail to highway has negative implications for highway safety. According to 1995 statistics, more than three times as many people died in truck-related accidents as in rail-related accidents, in spite of the fact that railroads provided more total freight transportation than trucks.

- **LCVs cause severe bridge damage.** National operation of LCVs would cost government agencies $12.7 billion in bridge replacement costs. Those repairs would mean an additional $59 billion in indirect costs for lost time and extra fuel burnt by auto drivers stuck in traffic because of bridge work.

LCVs aren't compatible with existing highways and traffic volumes. They have trouble merging or changing lanes, they have difficulty maintaining speed on upgrades, and they have a much larger blind spot than conventional trucks.

- **Bigger trucks would harm the environment.** Bigger trucks may be more fuel efficient than smaller trucks, but they are not nearly as fuel efficient as trains. Every ton of freight diverted from rail to highway increases emission of air pollutants by factors as high as nine.

- **Bigger trucks would harm the nation's railroads.** According to one recent survey of shippers, allowing bigger trucks on highways would cause them to shift to the highways freight that currently provides railroads with almost $4.5 billion in annual revenues. This would sharply curtail railroad operating income and capital expansion programs. It would also force railroads to attempt to raise rates on remaining customers, abandon additional lines and rethink investment and maintenance expenditures that have sharply improved the rail infrastructure.

- **Intermodalism is a better idea.** Railroads and truckers have formed successful partnerships over the past few decades to move truck trailers and ocean containers long distances by rail — a practice known as intermodalism. Since 1980, this traffic has more than doubled. A single train can carry 280 trailers or containers, decreasing wear and tear on our highways and relieving congestion and pollution.

The Trucking Industry's "State Option" — The First Step to a National Mandate

Many in the trucking industry say they are not seeking nationwide authority for bigger trucks. Instead, they say they only want individual states to have the right to decide for themselves whether or not to permit bigger trucks on the highways of each state — this is not the case.

In the past, the trucking industry has viewed states rights as nothing more than a ploy to eventually force nationwide acceptance of bigger trucks. In the 1970s, for example, the trucking industry assured Congress it wasn't seeking nationwide authority to operate 80,000-pound trucks, just a state option to permit heavier trucks. By the early 1980s, the industry was complaining about operating difficulties created by "recalcitrant" states that hadn't increased weight limits. It successfully used this argument to gain legislation mandating a nationwide weight limit increase to 80,000 pounds in 1984.

Maintain the LCV Freeze

In 1991, Congress carefully considered the arguments proffered on increasing truck sizes, and it concluded that the public interest lay in halting the spread of larger trucks. That is why the Intermodal Surface Transportation Efficiency Act of 1991 contains a freeze on LCVs, permitting them to operate in the 17 states where they are already legal but nowhere else. Nothing has changed since Congress made that decision. The public interest lies in maintaining that freeze, and the next highway funding bill ought to reflect that.

#

KEY POINTS

Americans overwhelmingly oppose LCVs. Every poll ever done has shown huge majorities against expanded use of triples and long doubles. The most recent poll shows that 90 percent oppose triples, 76 percent oppose long doubles. 68 percent support the current freeze on the expansion of LCV use.

- The main reason people don't want to see longer or heavier trucks is their fear that bigger trucks are unsafe. There's plenty of engineering evidence supporting this public concern.

- Heavy combination trucks already have about twice the fatal accident rate per mile as automobiles. Today, almost all of these trucks are conventional, single trailer "tractor semitrailers."

- Yet LCVs have even worse stability, handling and other safety problems than conventional trucks. And while today LCVs are less than ½ of 1 percent of all truck traffic, according to the American Trucking Associations' own study, *20 percent of the combination trucks on the road would be LCVs if they were to be legalized nationwide*--the truckers' ultimate goal.

- The worst safety problem with LCVs is the fact that they just aren't compatible with the existing highway system and traffic volumes. They're so big and so slow (especially when trying to accelerate) that they have trouble merging or changing lanes in freeway traffic. Similarly, they have problems maintaining speed on upgrades (and then have trouble reducing speed, and braking, on downgrades). These speed differentials create serious safety risks. And (again because of their size) they have a much larger blind spot than conventional trucks.

- LCVs also present a greater safety risk simply because they have more trailers. As a result, LCVs suffer from increased "rearward amplification" (the "crack the whip" effect). They also have more trailer separations. And they offer a higher surface area to wind, increasing the risk of being literally blown off the road.

- Because LCVs are heavier than conventional trucks they cause more severe accidents (their greater length also means that they have a larger crash "footprint").

- LCVs make driving harder. Accidents are rare events. But sharing the road with LCVs--even when there isn't an accident--makes driving, already very stressful, even more difficult. Surveys of older drivers, for example, show consistently that having to share the road with trucks is one of the things they like least about driving.

- LCVs cause bridge damage. National operation of LCVs would cost government agencies $12.7billion in bridge replacement costs. That repair would mean $59 billion in lost time and extra fuel burnt by auto drivers stuck in traffic because of bridge work.

- LCVs are going to make our highway congestion problems worse. A single LCV has the same impact on highway congestion and traffic delay as 10 to 12 automobiles (or more than *twice* the impact of two conventional trucks). Diversion of freight from railroads to highways will compound this problem. Highway congestion is already our nation's number one transportation problem, with estimated annual costs of $39 billion or more.

- LCVs underpay their highway cost responsibility. A triple trailer operating at the most common registered weight of 115,000 pounds pays only 70% of its Federal highway costs.

- Heavier single tractor trailer trucks also raise serious infrastructure and safety issues. (See the attached one pager on 97k trucks).

Nationwide operation of 97,000 pound trucks would cost railroads $2.4 billion. (Same ADL study as LCVs. Figures are cumulative).

FOR THE MEDIA

Press Release Central

Contact:
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(904) 366-2900

FOR IMMEDIATE RELEASE

CSX RAIL PROPOSAL GREATLY ENHANCES INDIANA'S MARKET REACH THROUGHOUT THE EASTERN UNITED STATES

JACKSONVILLE, Fla., June 23, 1997 – Indiana will be a leading rail transportation hub, and Indianapolis will become a regional operations center in a proposal by CSX Corp. for operating the routes it plans to acquire from Conrail Inc.

CSX and Norfolk Southern Corp. today filed a joint application with the federal Surface Transportation Board to acquire the routes and assets of Conrail. One component of the application is CSX's proposed operating plan, which includes details about the company's expanded role in Indiana and planned capital expenditures in the state that will total in excess of $120 million.

"Indiana overall, and Indianapolis in particular, will play an increasingly important role for CSX under this transaction," said John W. Snow, Chairman and Chief Executive Officer of CSX Corp. The plan calls for Indianapolis to become a regional operating headquarters and for Conrail's Avon Yard, to be acquired by CSX Transportation Inc. (CSXT), to become a major freight hub in the new CSX rail system. "CSXT's rail upgrade project across northern Indiana and Ohio will provide a highly efficient, high-capacity rail link between the Midwest and Northeast," Snow added.

Some details of the operating plan related to Indiana include:

· Indianapolis will become a new "service lane" headquarters for CSXT, where operations, crew management, dispatching, engineering, maintenance and service planning will be directed at the regional level. CSXT now operates seven regional centers of this type.

· CSXT's Chicago-Greenwich, Ohio, main line, which runs across northern Indiana will be upgraded as part of a project to create a high-capacity corridor between the Midwest and the Northeast. CSXT's capital investment on this project in Indiana is projected at $110 million, with an additional $6 million in expenditures in the state this year through the purchases of local services.

· Avon Yard, west of Indianapolis, will serve as a major classification yard for the CSXT system, expediting freight cars to the northeastern United States and assembling blocks of rail cars and entire trains for movement beyond the Mississippi River. Local freight operations at Indianapolis will be centered at Hawthorne Yard on the city's southeast side. Capital investment in yard and facility improvements in Indianapolis is estimated at $10 million.

· CSXT also plans to acquire from Norfolk Southern a parallel route between Chicago, Fort Wayne and central Ohio that will be used as an auxiliary service route for bulk commodity freight traffic, such as grain and coal. Roughly $6.5 million will be invested in track improvements.

"CSXT's customers will be able to reach new markets for their products and expand their options for obtaining raw materials and components," said A.R. "Pete" Carpenter, president and CEO of CSXT. "A fundamental advantage of the new system is its ability to link major producing markets in the South with consumer markets in the Northeast and Midwest with single-line service. The result will be a faster, more flexible and cost-efficient network."

Carpenter said more efficient, reliable rail transportation will make Indiana a more attractive location for economic development. He added that CSXT will increase its already aggressive efforts, working with state and local economic development offices, to bring new industries to Indiana and the region.

Indiana will be served by eight key CSXT service routes that will improve the state's railroad links to nearly every market in the East, Midwest and South by providing single-line service. These routes are:

· NORTHEASTERN GATEWAY SERVICE ROUTE - Chicago to Cleveland, Boston and New York via Gary and Auburn.
· EASTERN GATEWAY SERVICE ROUTE - Chicago to Pittsburgh, Washington, and Philadelphia via Gary and Auburn.
· ALTERNATE CHICAGO SERVICE ROUTE - Chicago to Cleveland via Fort Wayne.
· ST. LOUIS GATEWAY SERVICE ROUTE - St. Louis to the East Coast via Terre Haute, Indianapolis and Muncie.
· MICHIGAN-CHICAGO SERVICE ROUTE - Detroit to Chicago via Gary and Auburn.
· CHICAGO GATEWAY-SOUTHEAST SERVICE ROUTE - Chicago to Miami via Terre Haute and Evansville.
· CENTRAL SERVICE ROUTE - Southeast United States to Chicago and St. Louis via Indianapolis or Terre Haute.
· HEARTLAND SERVICE ROUTE - Nashville, Tenn., to Detroit and New England via Evansville, Terre Haute, Indianapolis and Muncie.

The Northeastern and Eastern Gateway routes will provide high-capacity rail lines between the Midwest and East across northern Indiana. Corridors to the Southeast will open grain and other market opportunities to Indiana customers now served by Conrail. Improved service for Indiana's auto and steel production facilities also will result.

The expanded rail system includes benefits for key commodity groups that make up a majority of rail freight traffic: coal, steel, automotive, grain, wood, paper products, chemicals, minerals and general merchandise traffic. Routes and connections were designed with customers in mind to facilitate commodity flows to expanded market areas created by the acquisition.

"The CSXT system will create vast new opportunities for rail movement of freight with increased efficiency and greater reliability," Carpenter said. "The single-line service and operating efficiencies that this acquisition will create will allow us to reduce transit times, often by one or more days depending on the route."

CSXT's operating plan will not result in any rail line abandonments in the state, nor is it expected to have an adverse impact on commuter passenger operations in the Chicago area.

CSX Corp. employs about 4,800 workers in Indiana with an annual payroll of $115 million. About 1,400 are employees of CSXT and the remaining work for American Commercial Barge Lines, based in Jeffersonville, Ind.

CSXT and its 29,000 employees provide rail transportation and distribution services over an 18,500 route-mile network in 20 states.

the District of Columbia and Ontario, Canada. CSXT is a business unit of CSX Corp., headquartered in Richmond, Va.

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STB FD 33388 2-2-98 K 185495

PAUL E. GILLMOR
5TH DISTRICT, OHIO
1203 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-3505
202-225-6405

ENVIRONMENTAL DOCUMENT

COMMITTEE ON COMMERCE
VICE CHAIRMAN
SUBCOMMITTEES:
TELECOMMUNICATIONS, TRADE AND CONSUMER PROTECTION
FINANCE AND HAZARDOUS MATERIALS

Congress of the United States
House of Representatives
Washington, DC 20515-3505

January 28, 1998

Office Of The Secretary
Case Control Unit
Finance Docket No. 33388
Surface Transportation Board
1925 K Street NW
Washington, D.C. 20423-0001

Dear Sir/Madam:

I am writing on behalf of my constituents who reside in the Fifth District of Ohio. As part of my continued commitment to safe rail operations in my District, please include my correspondence in your analysis of the potential environmental impacts of the proposed Conrail acquisition.

As you may know, I recently had the opportunity to bring concerned elected officials together with representatives from both rail companies and the government entities involved with the acquisition. I was pleased that the Surface Transportation Board accepted my invitation to be present at the meetings.

The major areas of concern relate to the public safety of drivers, pedestrians and school children which must be adequately addressed. The most critical concern which I share with my constituents is that areas in several communities will not have an emergency response access when certain crossings are blocked by trains. This is true particularly in the communities of Fostoria, Greenwich and Willard. The redeployment of trains caused by the acquisition may decrease air quality, increase noise, force farm machinery onto major highways and cause traffic delays.

It appears from your draft Environmental Impact Statement (EIS) that Conrail acquisition will greatly impact all of Ohio. While some areas of Ohio will benefit economically from the acquisition, I urge the Board to approve the acquisition only if they redress the negative impacts, including the safety issues.

DEFIANCE
613 WEST THIRD STREET
DEFIANCE, OH 43512
419-782-1996

NORWALK
130 SHADY LANE DRIVE
NORWALK, OH 44857
419-668-0206

PERRYSBURG
148 EAST SOUTH BOUNDARY STREET
PERRYSBURG, OH 43551
419-872-2500

PORT CLINTON
120 JEFFERSON STREET, 2D FLOOR
PORT CLINTON, OH 43452
419-734-1999

TOLL FREE IN OHIO 1-800-541-6446
TOLL FREE FAX IN OHIO 1-800-278-8203

Office Of The Secretary
January 28, 1998

Thank you in advance for your review of my written comments during the preparation of your final EIS. Should you have any questions, you may reach my staff by calling 419/734-1999.

Sincerely,

Paul E. Gillmor
Member of Congress

PEG:csb

185491

Original

ENVIRONMENTAL DOCUMENT

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

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RESPONSIVE COMMENTS TO
DRAFT ENVIRONMENTAL IMPACT STATEMENT
AND
REQUEST FOR PROTECTIVE CONDITIONS
SUBMITTED ON BEHALF OF
THE OHIO ATTORNEY GENERAL,
OHIO RAIL DEVELOPMENT COMMISSION
AND
THE PUBLIC UTILITIES COMMISSION OF OHIO

ENTERED
Office of the Secretary
FEB 03 1998
Part of
Public Record

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Dated: February 2, 1998

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SURFACE TRANSPORTATION BOARD

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

. . . . . .

RESPONSIVE COMMENTS TO
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AND
REQUEST FOR PROTECTIVE CONDITIONS
SUBMITTED ON BEHALF OF
THE OHIO ATTORNEY GENERAL,
OHIO RAIL DEVELOPMENT COMMISSION
AND
THE PUBLIC UTILITIES COMMISSION OF OHIO

. . . . . .

I. INTRODUCTION

A draft Environmental Impact Statement (draft EIS) was issued by the Surface Transportation Board's Section on Environmental Analysis (SEA), on December 12, 1997. That draft EIS incorporated safety integration plans which were filed by CSX Transportation and Norfolk Southern Corporation (collectively "Joint Applicants") as required in the Board's Decision No. 52. Interested parties were invited to file responsive comments concerning the draft EIS by February 2, 1998. Such comments are to be considered by SEA in preparation of the final EIS expected to be issued in May of 1998. Specifically, the SEA seeks comment on the feasibility of mitigation matters proposed in the draft EIS and invites parties to submit additional and/or alternative

mitigation proposals. These comments are timely submitted on behalf of the Ohio Attorney General, the Ohio Rail Development Commission (ORDC), and the Public Utilities Commission of Ohio (PUCO) (collectively "Ohio").

II. STATEMENT OF INTEREST

Ohio experiences prolific rail traffic. Three Class I railroads and over 30 short-line and regional rail carriers operate throughout the state. Ohio has a significant stake in issues involving safety, traffic flows, noise abatement, environmental-related matters, and other issues raised by this Joint Application. With nearly 6,500 public highway-railroad grade crossings located throughout Ohio, issues of crossing safety and traffic congestion are of paramount concern to the state.

Ohio applauds the efforts of the SEA staff in identifying and discussing the myriad of issues addressed in the draft EIS. Ohio recognizes, as does the SEA, that a cooperative railroad-public partnership is critical to the effective resolution of many of these issues. The PUCO, in coordination with ORDC, has regularly involved railroad and local governmental officials in the process by which public highway-railroad grade crossings are identified and selected for publicly-funded construction of

active warning devices. Ohio certainly endorses continuation of this process.[1]

If granted, the proposed Joint Application will have profound impacts upon Ohio communities and residents in both urban and rural areas throughout the state. Although Ohio is actively participating in recognizing problems and developing solutions to minimize or mitigate these impacts, state financial resources are extremely limited. This fact, coupled with the significant benefits that the Joint Applicants seek to realize under the proposed transaction mandates that the railroads be required to participate throughout the process of identifying serious environmental and safety problems and contribute heavily from their considerable expertise and resources to redress the adverse impacts that post-Conrail Acquisition increased levels of rail traffic will have upon the State of Ohio.

Ohio here makes some general observations that will be discussed in greater detail below. Ohio believes that construction of grade separations should be made a larger part of the mitigation effort in Ohio, particularly in areas where post-merger train traffic volumes are expected to increase dramatically over existing levels.[2] Obviously, construction of

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[1] Ohio concurs in SEA's recognition that significant public outreach activities by the Joint Applicants are critical to a thorough understanding and assessment of local safety, congestion and environmental justice concerns discussed in the draft EIS.

[2] See attached map depicting post-merger traffic increases/decreases. Exhibit 1.

grade separations promotes public safety and reduces railroad liability exposure by eliminating the opportunity for train-vehicle collisions. Grade separations also relieve vehicle traffic congestion and attendant problems, including emergency vehicle response. Ohio has identified below several locations for which grade separation projects will be particularly effective in mitigating serious problems which will result from the proposed Conrail acquisition. The locations specifically mentioned do not represent a complete list of communities with grade separation needs.

In the area of grade crossing safety, Ohio believes that implementing a "corridor" approach more efficiently and economically promotes crossing safety. A corridor study focuses upon rail segments for safety upgrades rather than simply identifying single crossings over a scattered area. By focusing upon the rail segments that the Joint Applicants have targeted for significant train traffic increases Ohio can most effectively assess and address Acquisition-related safety impacts. In addition to identification of grade crossings for safety upgrades, PUCO/ORDC also evaluates the feasibility of closing public grade crossings permanently to public vehicular traffic as part of any corridor analysis. Development of comprehensive corridor safety plans by State officials working together with motivated railroad representatives provides fora more focused and efficient employment of limited state resources while maximizing the positive deployment of railroad resources.

Ohio has successfully negotiated several smaller corridor-type agreements with the Class I railroads. The so-called "B&O corridor" project represents a recent example of how effectively the joint efforts of railroads and Ohio officials can be in addressing significant safety concerns that arise from the Conrail Acquisition application. This agreement is discussed in greater detail below and is provided as Exhibit 2 to these comments. Other relevant heavy rail traffic corridors are also under study by PUCO/ORDC as of this writing and are referenced later in these comments. Insufficient time has simply not permitted PUCO/ORDC and the Joint Applicants to complete assessment of the impacts on these other corridor areas and to fully evaluate required mitigation measures, allocation of cost responsibility for such measures and other related issues. Ohio requests that the Board impose a condition directing the Joint Applicants to reach and finalize agreements with Ohio that address such issues on all environmentally significant corridors identified by Ohio and direct CSX and NS to commit to full compliance with such agreements prior to increasing train traffic over existing levels on any of these corridor segments, including the B&O corridor.

In sum, Ohio maintains that it is in the best position to identify areas within its borders that will be most heavily impacted by the proposed Conrail acquisition and, in coordination with the Joint Applicants, to evaluate and tailor solutions to most effectively address those impacts. Although the SEA is to

be commended for the time and effort spent in designing study parameters and proposing specific mitigation measures, Ohio is confident that the sheer magnitude of the project and the corresponding time constraints imposed upon limited SEA staff resources have precluded the more "localized" approach that must be taken to ensure that the uniqueness of Ohio problems are captured in Ohio solutions. Ohio believes that it can more effectively assess and address post-Acquisition impacts through negotiated agreements with the Joint Applicants that will themselves target specific areas and identify specific projects to mitigate such impacts.[3] Ohio concurs with the observation of the SEA staff that many of the environmental impacts addressed in the draft EIS can be "most effectively resolved' through mutually-acceptable agreements involving the Joint Applicants, affected local communities and appropriate government agencies. Executive Summary at ES-15. Ohio has successfully negotiated the B&O corridor safety agreement and is progressing negotiations with Applicants on other corridors. In committing considerable effort and resources to progressing specific talks with the major railroad stakeholders Ohio clear objective is to present the Board with Ohio-specific safety agreements and mitigative

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[3] Perhaps the most glaring example of this fact is the omission from the draft EIS text of any mention of Fostoria, OH, an area that all parties, including the Joint Applicants, have recognized for some time would be significantly impacted under the Conrail Acquisition Plan. In assessing specific solutions to Ohio-specific impacts, the Board should give due regard to Ohio-specific facts and circumstances rather than simply relying upon the more generalized "rule of thumb" thresholds for environmental analysis devised by the SEA staff to trigger remedial measures.

measures. The Board should order the Joint Applicants to diligently and in good faith negotiate with Ohio to reach agreements that comprehensively address Ohio's concerns and which will effectively mitigate impacts upon Ohio that will be occasioned if the proposed Transaction is approved.

III. CONDITIONS

The State of Ohio asserts that the Joint Application, as proposed, is not in the public interest and should be denied unless the Board directs that the following conditions attach in addition to other essential relief as previously identified:

(a) The Board should expressly recognize the important and primary role that Ohio occupies in addressing issues relative to grade crossing safety and rail/public traffic congestion and safety-related issues within the State. The Joint Applicants should be required to assume a significant role in identifying and funding safety improvements needed to address impacts upon Ohio that will result from post-Acquisition increased rail operations within the state. The Board should order and impose as a condition that the Joint Applicants continue good faith negotiations with Ohio officials for the safety improvements along rail corridors with significant adverse environmental impacts resulting from the Conrail Acquisition. As a condition to approval of the application, the railroads should be required to enter into firm agreements with Ohio that assess Ohio impacts

and provide for appropriate mitigation measures, including construction of active warning devices at public crossings and construction of grade separations where essential as remedial measures, to alleviate public traffic congestion and facilitate emergency vehicle response. Ohio has committed its efforts and its resources in order to submit such agreements for the Board's consideration in the next 90-120 days. The Joint Applicants should be required to cooperate with Ohio in completing such agreements, which must include significant railroad funding commitments, and to commit to fulfilling their obligations thereunder before implementing any significant increases in rail traffic over certain Ohio rail corridors as contemplated in the Application.

(b) The Board should order and impose upon the Joint Applicants more stringent requirements regarding rail transportation of hazardous materials. The Board should also require more frequent track and equipment inspections than those discussed in the OT-55B. Ohio urges the Board to impose reporting requirements to ensure that the Joint Applicants allocate resources sufficient to demonstrate a firm commitment to safe hazardous materials transportation. In this regard, the Board should require the Joint Applicants to expand current employer and public response training programs and to report annually for the next five years regarding the nature and effectiveness of such expanded programs. Where significant increases in hazardous materials traffic will occur in specific

corridors, the Joint Applicants should be ordered to fund equipment purchases, travel and tuition expenses for advanced training and the costs associated with development of community emergency response plans for public agencies. The Joint Applicants should also be required to earmark funds to be specifically used for community emergency response training and equipment grants. The Board should also order the Joint Applicants to annually report on hazardous materials incidents and violations on "key" and "major key" routes, and the Board should urge development of specific monetary sanctions for patterns of violations along such routes.

IV. OEPA CONCERNS

The Ohio Environmental Protection Agency has also reviewed the draft EIS in the context of potential impacts of the proposed Acquisition on Ohio communities. OEPA is very much concerned that key air quality and emissions were not adequately addressed in the draft EIS. These include the fact that there is no suggested mitigation for 7,000 tons per year for increased nitrogen oxide emissions. There is also insufficient information in the draft EIS from which to determine the impact of the merger on the 1-hour and 8-hour national air quality standards for ozone. Also the draft EIS does not address the impact of increased emissions of particulate on national air quality

standards for PM. See attached copies of internal OEPA memoranda addressing the specific concerns.[4]

V. DISCUSSION

Ohio Highway/Rail At-Grade Crossing Safety

A. B&O Corridor Agreement

On November 25, 1997, the Public Utilities Commission of Ohio (PUCO) adopted an agreement to enhance safety at public grade crossings located along 75 miles of the "B&O" corridor extending from Greenwich, Ohio to the Ohio/Indiana border. See Exhibit 2. Ohio selected this corridor, which contains a large number of passively protected crossings, in response to significant increases in train traffic levels that CSX expects to occur under the proposed Acquisition. CSX has announced plans to make significant c pital investments to double track this corridor to accommodate greater volumes of higher-speed train traffic as part of double-track service CSX expects to offer linking Cleveland and Chicago. Post-Acquisition train traffic is expected to more than double on certain portions of this corridor. This milestone public safety agreement allocates costs of safety upgrades[5] to reflect the increased accident prediction

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[4] See Exhibit 3.

[5] The PUCO's policy is to promote maximum protection at public grade crossings through installation of both traffic gates and flashing warning lights at public grade crossings. The PUCO evaluates and ranks crossings for publicly-funded safety upgrades by applying the federal Accident Prediction Formula.

formula ranking for corridor crossings due to physical and operational changes at those locations. Additionally, the agreement requires PUCO and the ORDC to work closely with local communities to identify grade crossing locations that could be closed permanently as an alternative to construction of warning devices. In the event a grade crossing originally targeted for construction of warning devices is closed, the B&O corridor agreement is flexible enough to permit transfer of dollars earmarked for crossing improvements to be applied for safety projects at other locations within the defined corridor.

The B&O Corridor Safety Agreement is the reasoned end product of extensive negotiations between CSX and Ohio officials to achieve a common goal - to proactively address heightened grade crossing safety concerns occasioned by CSX-proposed, Acquisition-related operating changes along this corridor. This public-private partnership recognizes the various stakeholders and invites them to participate in resolution of important safety concerns. As the PUCO noted on page four of its Order,[6] the B&O corridor agreement represents only an initial step to address Acquisition-related safety concerns, and the PUCO fully expects CSX cooperation in assessing other impacted areas and developing responsive mitigative measures. Ohio expects to reach similar types of safety agreements with the NS and Conrail as well, negotiations for which are currently underway. Given the highly localized nature of grade crossing safety and the many factors

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[6] Exhibit 2, p. 4.

that must be considered, Ohio requests that the Board direct the Joint Applicants to continue cooperative negotiations with State of Ohio officials and local communities on corridor-type crossing safety agreements that will most efficiently deploy limited resources.

B. Corridor Evaluation Approach

Since 1989, the PUCO, in conjunction with ORDC, has administered a program to identify public grade crossings for construction of federally-funded automatic warning devices. Under Ohio law, the PUCO is charged with developing and maintaining an index which ranks or prioritizes Ohio public crossings for funded safety improvements. Ohio utilizes the federally-adopted Accident Prediction Formula to perform this ranking. Since 1990, the PUCO has ordered installation of traffic gates and warning lights at nearly 800 public grade crossings throughout Ohio at a cost of over $88 million. The PUCO administers a limited state-funded program which typically results in construction of safety upgrades at an additional 10-12 public crossings per year. The PUCO also makes limited state funds available to qualifying local communities for interim types of safety improvements such as installation of overhead lighting and rumble strips to heighten public awareness of crossing dangers. PUCO/ORDC has been very active in recent years in working closely with local governmental authorities to permanently close grade crossings to vehicular traffic under

arrangements which often involve railroad-provided incentives which assist local authorities in addressing other important community needs.

PUCO/ORDC has been both active and aggressive in addressing crossing safety issues and PUCO/ORDC believes that all stakeholders, public and private, must provide input and actively participate in solutions. Ohio officials have increasingly recognized the wisdom of targeting rail corridors or segments, rather than isolated crossings at scattered locations, for safety improvements. These corridor studies involve a focused review of rail segments by Ohio officials, local interests and the railroad and appropriately evaluate the feasibility of crossing closures. Based upon considerable experience Ohio has found that this approach represents a superior methodology for evaluating and targeting crossings for safety upgrades in response to significant increases in rail traffic in comparison with the "all the eggs in one basket" approach employed by the SEA in the draft EIS.

WEAKNESS OF SEA CROSSING SAFETY ANALYSIS

The SEA's efforts to address crossing safety issues, although commendable, nonetheless suffer from two key flaws; (1) use of 1995 base year information, and (2) a tendency to analyze individual crossing locations in isolation. The SEA's use of 1995 data to evaluate crossing safety is inadequate since the risk level of any crossing can rise or fall dramatically based

upon changing circumstances. By not using the latest information from the states, the SEA also appears to have duplicated analysis which has already been performed. For example, 20 of 35 crossings that the SEA has recommended for safety upgrades have already been selected by PUCO for construction of gates and lights as part of Ohio's ongoing grade crossing safety program.

The need for current accident information data is particularly important. In evaluating crossings for safety upgrades, Ohio considers the most recent five years of crash information. Of the Ohio crossings evaluated in the draft EIS, over 10 percent (125 of 900) had different accident histories when 1993-1997 data was considered rather than when 1991-1995 data was used. This, in turn, can artificially inflate or reduce perceived risks at particular crossing locations. Extrapolating 1991-1995 data also led to an evaluation of gated crossings using crash data for periods prior to installation of safety devices. At only two (Crossing Nos. 155821J and 473668W) of seven crossings for which the SEA recommended installation of quad gates or barriers did accidents occur following installation of the safety devices.

Use of 1995 baseline data for analysis does not reflect *current* train volumes. The Deshler-Toledo corridor represents a prime example. Under the SEA analysis, this corridor increases from 0.6 trains per day to 14.2 trains daily. In fact, CSX added

over 13 trains per day[7] on this corridor beginning in May, 1997 (independent of the Acquisition Application), resulting in a much smaller increase in train traffic which might call into question the SEA-proposed mitigation measure.

Likewise, use of current vehicle traffic data is of obvious importance to any safety analysis, and reliance upon only the national data base may not capture changing vehicle traffic volumes through a crossing. A sampling by PUCO illustrated the following wide discrepancies in ADT:

Crossing No.	SEA/ADT	PUCO/ADT
155799Y	510	1612
155814Y	1270	2239
142313G	540	1133
142314N	540	1828

The SEA's use of "stale" national data base information calls into question the reliability of the Ohio crossings selected and proposed by SEA for mitigation.

While the FRA accident prediction formula is a good tool for use in prioritizing crossings and allocating available funding,

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[7] The present pre-Acquisition train count on this segment indicated in the draft EIS may be incorrect. By letter dated June 4, 1997, CSX informed the PUCO Railroad Division that existing traffic on this segment was at a rate of approximately 10 trains per day.

it was never intended to provide the type of surgical precision that the SEA has applied in the draft EIS. Ohio has long recognized this fact and, therefore, uses this formula only as a beginning point in its crossing safety analysis. The failure to use the latest data can produce results that are not adequate in identifying locations where accidents are likely to occur in the future.

STRENGTHS OF OHIO CORRIDOR APPROACH

Ohio has demonstrated that the more effective approach to grade crossing safety is to develop a comprehensive plan for improved protection along entire corridors using updated information and broader analysis of the local situation. Ohio has undertaken such an approach in its efforts to prepare for the changing traffic patterns resulting from the proposed acquisition of Conrail.

As a beginning point in its analysis, Ohio considers the risk factor of the crossing considering the new level of train traffic with revised traffic counts and the most recent five years of accident data. If passenger trains are running on the segment of tracks, the maximum timetable speed is adjusted accordingly. The potential for consolidation projects along the corridor is then considered. The age of current circuitry is evaluated on gated crossings. Finally, *actual site visits* are scheduled to evaluate the lay of the land or nearby obstructions that make a crossing more risky than it appears from the data

analysis. All of these issues cannot be considered by simply projecting a risk factor from national data base information. This complete analysis can only be done at the state level.

Using the Board's environmental threshold levels, Ohio expects train traffic to significantly increase on 21 affected line segments, (see map included as Exhibit 1) including the aforementioned B&O Corridor which will serve as a CSX main line for east-west traffic and is currently undergoing major track and signal improvements in anticipation of significantly increased train traffic in the post-Acquisition time period.[8] Given the significant magnitude of projected train traffic increases, PUCO/ORDC is committed to the corridor approach on other segments including the existing Conrail segment from Greenwich to Collinwood, and NS lines from Cleveland to Ashtabula, Ashtabula to Youngstown, Bellevue to Oak Harbor, and Cleveland to Vermilion and all corridors where there are significant impacts. (See Exhibit 1). In this regard, Ohio identified crossings with an accident frequency as low as 0.043 (as opposed to SEA's 0.15 threshold) as sufficiently impacted to warrant construction of safety improvements. In the case of the B&O Corridor Agreement, which provides for upgrades to flashing lights and gates at 39 crossing locations, PUCO/ORDC used the latest vehicular and train counts available to produce a revised FRA Prediction Formula ranking for all crossings on the corridor. This ranking was then compared with the existing ranking to develop average post

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[8] See Exhibit 1.

acquisition increases in risk along the corridor. Using this figure as a benchmark, Ohio negotiated a cost sharing agreement with CSX to upgrade these locations.

The negotiated "B&O corridor" agreement is mutually beneficial and illustrates the effectiveness of a public-private partnership to promote public grade crossing safety by reducing the probability of accidents. In preparation for this agreement, PUCO/ORDC representatives inspected and updated data on almost 150 public crossings on this corridor, nearly two-thirds of which are only passively (crossbuck signage) protected. PUCO/ORDC conducted an extensive public outreach program which included meetings with various county, township, and local officials in six counties to discuss possible closures in exchange for upgrades at those crossings not initially selected as part of the agreement. This process is continuing and Ohio expects to receive local agreement on closing and/or upgrading potentially another 20 crossings on the B&O corridor. Once completed, Ohio will be very close to achieving maximum protection (lights and gates or closures) at each of the public crossings on the CSX B&O corridor between Greenwich, Ohio, and the Ohio/Indiana state line in advance of significantly increased post-Acquisition train traffic. Ohio believes that public outreach efforts are essential to obtain a thorough understanding of impacts and assessment and evaluation of appropriate solutions.

Ohio urges that the SEA employ a two-pronged approach to mitigation in this area. First, the SEA should recognize the

important role states have traditionally played in identifying and selecting grade crossing locations for upgraded warning devices. As administrators of grade crossing improvement programs, the states are the best and most complete source of information on pending and planned projects, as well as other local conditions which may impact crossings selected for upgrade. Any effective mitigation plan must, therefore, include Ohio as a significant partner in the selection of grade crossings for safety improvement.

Secondly, the railroads must be required to assume a significant role in funding safety improvements on these corridors since their proposed actions will directly contribute to the increased public risk. The railroad's financial commitment should be commensurate with the increased risks created by their proposed operations within each corridor.

Considering these factors, Ohio recommends that the Board include a condition directing the Joint Applicants to timely reach agreements with Ohio for the improvement of grade crossings on rail corridors deemed environmentally significant. The Board should direct that the Joint Applicants not be permitted to operate at increased post-Acquisition train levels until completed agreements are in place with Ohio and the railroads have committed to complete their assigned responsibilities as expeditiously as possible.

Should the Board choose not to direct the Joint Applicants to work closely with Ohio on implementing a corridor approach to

grade crossing safety and, instead, chose to evaluate all crossings and select particular locations for mitigation, the Board must, to most effectively address impacts, do so based upon the most current information. In that event, Ohio recommends that the Board's staff coordinate with Ohio officials to ensure that the Board has the best information possible with which to identify and select crossings for safety upgrades. That process should be concluded before SEA completes its final Environmental Impact Statement and makes specific recommendations to the STB regarding conditions that should be adopted should the Application be granted.

Ohio also urges the SEA to reconsider its approach to the type of warning devices that it has recommended in the draft EIS. Ohio maintains that any upgrades should include both gates and lights, rather than just flashing lights. Lights alone are not a cost effective solution. The major cost of upgrading a crossing involves the initial design and installation work and the addition of traffic gates results in only a minor increase in costs, while eliminating the need for an expensive enhancement in the event of continuing accidents at the locations.

Additionally, the SEA should reconsider its recommended use of four quadrant gates and barriers as a safety mitigation measure. While Ohio is not philosophically opposed to their use, such devices currently are experimental in nature and require additional time and expense for state agencies in securing necessary approvals. Site-specific considerations should be

taken into account. For example, use of median barriers on rural area crossings may prove impractical in light of the need to move large farm machinery through a crossing. Additionally, the need for circuitry upgrades should be evaluated prior to any decision to install four-quadrant gates at a crossing location. Ohio strongly recommends that the use of these types of proposed mitigative measures not be routinely ordered by the Board unless the Board is prepared to coordinate changes in existing federal program requirements with the FHWA.

C. Rail Transportation of Hazardous Materials

As a cross roads state and a major industrial and manufacturing center, Ohio experiences a large volume of hazardous materials movements through its borders. As indicated in table B8-3, Ohio had more hazardous materials incidents than any other state on the Applicants' systems between 1992 and 1996. Ohio enjoys the dubious distinction of being the site of the largest hazardous materials-related evacuation, resulting from a 1986 derailment and fire on the CSX system near Miamisburg, Onio.

Ohio clearly has a vested interest in safe rail transportation of hazardous materials and, consequently, has been a leader in efforts to address this area. Those efforts have included development of a comprehensive system of carrier registration, civil penalties, and funding of emergency response training. Ohio's program was designed as a multi-modal program to improve the safety of our citizens regardless of the mode

chosen by chemical manufacturers and marketers to ship their products.[9]

Ohio finds it particularly noteworthy to note that table B8-4 of the draft EIS shows that the two most frequent causes of hazardous materials incidents on Applicants' rail lines, between 1992 and 1996, are human error and package failure. Ohio believes this demonstrates short comings in existing railroad employee training and operating practices relative to the inspection, loading and transportation of hazardous materials shipments. Such shortcomings need to be addressed.

The Joint Applicants and the SEA have devoted significant text to discussion of hazardous materials "key routes" and the special care taken in the areas of employee training and emergency response training. Ohio has two concerns in this regard. First, "key routes" represent a voluntary concept nowhere incorporated in existing Federal Railroad Administration regulations and it is not clear that legal sanctions exist for railroad failures to follow these guidelines, even when they have been incorporated into railroad operating policies. Secondly, the guidelines are minimal in nature and represent more of a baseline for acceptable operations rather than a goal of excellence. The number of incidents listed in Table B8-4 speaks

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[9] Ohio is particularly concerned about rail transportation of hazardous materials throughout the State. As a result of railroad lawsuits, Ohio has been unable to implement its safety regulations for this mode of hazardous materials transport, although Ohio actively regulates hazardous materials carriage over its highways.

volumes in demonstrating that promulgation of these guidelines has not solved the problem of the accidental release of deadly chemicals along rail corridors and within rail yards. Given the anticipated level of increased hazardous material movements resulting from this acquisition, particularly in and around Cleveland, Ohio believes the railroads and federal regulators can and should do more to ensure safe transportation of these materials.

While Ohio believes that greater overall efforts are required by the railroads to train employees and inspect cars and packages transporting hazardous materials, the SEA's draft EIS approach of focusing upon particularly high density routes is reasonable to address increases in hazardous material traffic expected to result in certain lines as a result of the Conrail Acquisition. It is essential, however, that the Board take steps to ensure that the guidelines are actually implemented and consistently followed. The guidelines should also be strengthened and more broadly applied than as proposed in the draft EIS. Ohio urges the Board in the first instance to require that all key routes, not just newly identified key routes, be brought into compliance with the key route standards of OT-55B. The Board should also specifically condition any approval of the Acquisition upon demonstration of compliance with these guidelines through reporting procedures over the next five years designed to reveal any patterns of FRA citations or incidents along each key route.

On major key routes, as defined in the draft EIS, the Board should order additional requirements over existing OT-55B in the area of frequency of track and equipment inspections. Similarly, there should be reporting requirements detailing the number of employees devoted to these activities to ensure a continuing level of commitment to safe hazardous materials transportation. Joint Applicants should be required to expand current employee and public emergency response training and to report annually for the next five years regarding the frequency and nature of classes conducted and persons trained. In addition, the Joint Applicants should be required to specifically fund equipment purchases, travel and tuition expenses for advanced training, and the costs associated with development and implementation of community emergency response plans for public agency emergency responders which will be necessitated by substantial increases in hazardous materials traffic over specific routes. Given the heavy volumes of hazardous material train traffic that certain areas of Ohio will experience and the fact that many areas must rely upon volunteer emergency services, ordering of such funding by the Board will provide an absolutely essential supplement to minimal local resources that are available and is critical to ensure the availability of effective emergency response services.

Finally, adequate sanctions should be established for patterns of violations on both key and major key routes. As a condition to approval of the Acquisition, the Applicants should be subject to continuing Board oversight for a period of not less

than five years and the Board should urge development of specific monetary sanctions for patterns of violations of key route and major key route conditions established by the Board. Money raised by these payments should be used to fund community emergency response training and equipment grants.

D. Roadway Crossing Delays

The impacts associated with vehicle traffic delays and resulting congestion are of great concern to local communities in Ohio. In Section 5-OH.9, the SEA analyzed the effects of the proposed Conrail acquisition on roadway systems at existing highway/rail at-grade public crossings. In developing its approach to crossing delays the SEA has erred in two respects. First, the SEA has relied too heavily upon a statistical review based upon numbers of vehicles, train cars and speeds, while failing to take into account real world conditions that result in blocked crossings. Secondly, even if one argues that a mere statistical approach is appropriate, SEA's use of a 5,000 ADT threshold for consideration is far too high and has resulted in elimination of severely impacted locations.

Effective evaluation of this issue can only be achieved through on-site field reviews in affected communities along routes of environmental significance to examine the factors which contribute to crossing blockage. Factors contributing to these conditions can include operational problems which cause trains to slow beyond normal speeds or delay progress altogether. Examples

include location of control points, proximity to rail yards or sidings, lack of appropriate signals, delays at diamonds or other aspects of rail operations that cause trains to occupy crossings for an extended period. Additional factors that must be considered are the nature and location of businesses along the lines serviced by the railroad.

Use of the arbitrary 5000 ADT figure results in severely-impacted locations in smaller communities being overlooked under the SEA analysis even though these locations are currently experiencing serious blockage problems. The most remarkable failure of the SEA approach is highlighted by the absence of any discussion whatsoever of the serious problems faced by Fostoria. Ohio is presenting the Fostoria issue not only as an issue to be remediated but also as an example of what detailed local analyses is likely to reveal in other Ohio communities.

The City of Fostoria is a major railroad junction where existing railroad traffic and switching operations negatively impact vehicular traffic flow and emergency vehicle response. In its October 21 response to the STB, the State of Ohio highlighted its concerns regarding the acquisition of Conrail and its ramifications which will exacerbate Fostoria's environmental and safety problems. Included in that filing was the Verified Statement of Charles I. Dodge, Administrative Assistant to the Mayor of Fostoria and the statement of Philip G. Pasterak of Parsons Brinckerhoff Ohio, Inc. concerning the serious impacts of the proposed Acquisition on Fostoria. The SEA's environmental

analysis of the Conrail Acquisition, however, completely ignored these issues and failed to discuss the serious safety and environmental impacts on Fostoria. Therefore, the State of Ohio, working with the City of Fostoria, commissioned Parsons Brinckerhoff to prepare a comprehensive environmental analysis to focus on the magnitude of these issues. The Fostoria Remediation Study is attached as Exhibit 4.

All three of the intersecting railroad lines in Fostoria are projected to receive significant increases in rail traffic. Currently, an average of 84 trains pass through the city every day. As a result of the Conrail Acquisition by NS and CSX, the number of trains in Fostoria will increase by nearly 30 percent to 108 trains per day. The most critical impact from increasing rail traffic is on safety and emergency response time.

Two areas of the community, one to the east and one to the west, have been dubbed "Iron Triangles" by emergency response forces. This is because of the difficulties in identifying reliable and direct ingress/egress to the areas as a result of heavy train traffic blocking the at-grade crossings. Vehicular crossing delays are compounded by slow moving rail traffic switching from one mainline onto another.

The SEA's draft EIS inadequately addresses these impacts on Fostoria as a result of the Acquisition, and is grossly inadequate. Although rail segments C-070 (Marion-Fostoria) and C-075 (Willard-Fostoria) are identified as meeting the threshold for analysis by the SEA neither individual nor cumulative impacts

of increased traffic are considered on safety and grade crossing delays. In fact, the nature of the rail configuration in Fostoria, with three major rail/rail crossings, will cause impacts far in excess of the sum of the traffic increases on the three individual rail lines. Crossing delays will be compounded by stopped trains and trains moving at low speeds and a significant number of trains using slow speed connection tracks. These tracks and turnouts are not, and in most cases cannot be, configured for speed in excess of 15 mph. Typical speeds are likely closer to 10 mph. For the proposed 6200 foot typical CSX post-Acquisition train, this will result in a blocked crossing time per diverging train of 7.5 minutes. The SEA has failed to take into account these real world conditions that result in blocking critical crossings and emergency ingress routes.

Moreover, the arbitrary SEA threshold of 5000 ADT resulted in the elimination of two critical highway/railroad crossings from the evaluation process. Both crossings provide emergency vehicular ingress into Fostoria's isolated "Iron Triangle" neighborhoods. The more detailed Ohio analysis, which considered the interrelationships of the street network with actual train operating speeds, indicates that both Columbus Avenue and Tiffin Street must be considered significantly impacted.

Currently, the procedure for responding to a police or fire emergency situation in the two triangle areas in Fostoria is to dispatch two vehicles along separate routes, increasing the chances of successfully entering the triangles. In the event

that both routes are unimpeded and both vehicles are able to cross the tracks, the first crew determines whether to enter the scene immediately, possibly compromising their own safety, or wait until the second vehicle arrives with backup. This additional time is critical. For example, experts claim that, each additional; minute a fire burns, the fire typically doubles in its size and intensity. As the Ohio analysis illustrates, with the large volume of trains passing through Fostoria each day, the likelihood of encountering a train blocking an at-grade crossing is very high. The choice of the route to the site of an emergency can be very confusing to emergency personnel who have no reliable way of predicting which crossings will be blocked at a particular time of day.

According to the SEA's formula, under current volumes, a train is blocking one or more at-grade crossings in Fostoria 4.6 hours of each 24 hour day. That equates to 19 percent of the day that a crossing is inaccessible to emergency vehicles. With the increased train volumes resulting from the Acquisition, a crossing will be blocked over 6 of the 24 hours, which is over 25 percent of the day. Not all of the crossings will be blocked at the same time; however, an emergency vehicle has no schedule as to when crossing it needs will be blocked. With any given rail crossing blocked over fourth of the day, it becomes apparent that some alternative provision needs to be made for the safety of residents within the Iron Triangles.

Based on Ohio's analysis of the ingress/egress routes into Fostoria's Iron Triangle areas, the Columbus Avenue/east triangle area meets the criteria for a location requiring a grade separation. The post Acquisition LOS decreases one grade to LOS "E" or "F" following the Acquisition and rail traffic increases by eight trains. Additionally, the west triangle area also meets this criteria when considering a 33.9 increase on the CSX line along with the 4.6 increase on NS traffic. An increase of train speeds will provide only a partial, and relatively insignificant, mitigation of impacts on vehicular delay.

The potential for these two Iron Triangle areas to become isolated by rail movements and served by unreliable and unpredictable emergency service routes is very real and, therefore, the need for the construction of grade separations for both areas is strongly indicated. A grade separation for Town Street under the NS is recommended to mitigate east triangle impacts. Town Street provides a less expensive alternative to grade separating Columbus Avenue. And a grade separation for Tiffin Street over CSX is recommended to mitigate west triangle impacts. Conceptual engineering of these crossings shows that construction of these structures is feasible.

The crossing at Jones Road also has safety implications as there is the potential for the east half of the City to be temporarily cut off from ambulance services. With the next parallel road to Jones being so far to the south, a blocked crossing could add an extra 3.6 minutes to an ambulance's

response time to an incident just east of the tracks on Jones Road. As a result, a grade separation for Jones Road over CSX (C&O) should also be considered. In addition to the safety concerns associated with increased rail traffic blocking at-grade crossings, Fostoria also has concerns about the economic development viability near the CSX crossings at Jones Road. Jones Road is a highly traveled trucking route serving one of Fostoria's major commercial and industrial zones. Stopped trains often block the road and trigger the crossing gates for extended periods. Severe delays in vehicle transport will discourage other new business and industry ventures from wanting to locate in the City, thereby hindering economic growth

At minimum, additional measures that should be implemented include the upgrading of grade crossing circuitry to state-of-the-art motion detection systems. Such a relatively inexpensive improvement would minimize the time that Jones Road Traffic is blocked without the presence of a train across the crossing. The improved circuity would reduce over activation of the current warning devices. Conceptual engineering of this crossing indicates that it is feasible to construct.

Ohio, once again, urges that the STB must carefully consider the Fostoria safety issues in the proper perspective. All of those concerns are buttressed by the underlying Fostoria Remediation Study which provides a comprehensive technical analysis of Fostoria's problems. Ohio believes that the recommendations for the construction of three grade separations is

completely warranted. In this light, Ohio recommends that the STB order the Joint Applicants to enter negotiations with the state and local officials and to develop agreements for resolving the environmental and safety impacts in Fostoria. This includes defining the cost sharing for construction of the three grade separations.

Attached is a letter from the Mayor of the City of Fostoria (Exhibit 5) and a copy of a letter addressed to the STB by a city official (Exhibit 6), both of which emphasize the very serious concerns of responsible city officials as to the impact of the proposed Transaction on public safety and access to essential emergency services absent adequate remedial action.

Again Fostoria is only one example of the serious problems Ohio is finding. Other locations including Ashtabula, Olmstead Falls, Berea, Bellevue, Defiance County, Oak Harbor, Clyde, Greenwich, Wellington, Grafton, and New London are being reviewed in terms of their need for mitigation measures. Cleveland has raised serious concerns in this regard as well. Such locations may well require construction of grade separations to effectively solve crossing delay and emergency response concerns if the proposed Transaction is approved. It is therefore critical that the Board ensure that these remedial requirements are recognized and place sole or significant financial responsibility upon the Joint Applicants for needed construction and improvements which will be required to safely accommodate expanded rail operations under the Acquisition Application.

Applying its methodology, the SEA has identified Ohio crossings which will incur significant delays. SEA's proposed fix to these problems calls for the railroads to increase train speeds in three locations and to consult with local and state highway officials on mitigation measures for the other crossings. Ohio disagrees that increasing train speeds through urban areas constitutes a safe and workable solution for crossing congestion, unless it is done only after it is determined to be safe and feasible after comprehensive review of existing signaling, operating practices and grade crossing protection systems in the affected areas. Ohio agrees with SEA's conclusion that crossing delay issues are most effectively resolved where the Joint Applicants and local and state highway officials work together on a cooperative basis. The input of all concerned stakeholders is critical to an effective identification of other significantly impacted locations and assessment of mitigation measures and appropriate in this proceeding. Commitment of resources and funding to accomplishment of remedial steps as found to be necessary.

Ohio recommends that, as a condition of approval of the Application, the railroads be required to reach agreements with Ohio that address all areas of concern. These agreements must include significant railroad funding commitments to ensure that mitigation measures are completed. The Board should direct that the Joint Applicants not operate at post-Acquisition increased traffic levels until firm agreements have been executed.

E. Toledo Deshler Rail Line Segment

In light of the prior dormancy of train traffic on the Toledo-Deshler rail segment, Ohio concurs with and recommends that the Board adopt the SEA's proposed mitigation measures for the nine remaining (*i.e.* those not currently the subject of PUCO projects) passively-protected grade crossings that are listed on Table 5 OH-56 (page OH-154). Consistent with PUCO policy, Ohio recommends that mitigative measures at each of these remaining crossings include both flashing warning lights and traffic control gates.

As background information, the SEA has included for specific comment this 36-mile section of track that traverses through portions of Lucas, Wood, and Henry Counties in northwestern Ohio. Ohio is somewhat unclear as to why the SEA chose to specifically comment since this increased traffic is not solely an Acquisition related issue. The line in question was essentially dormant until May 1997 when CSX increased the traffic from .6 to 13.6 trains per day. Post acquisition traffic raises this level to 14.2 trains per day. While this is a significant percentage increase over the prior dormancy level, it still pales in comparison with the increases on other lines in Ohio.

Ohio had previously identified grade crossing warning device projects along this line but deferred further action on these projects when the traffic decreased to minimal levels. Had there been better coordination between CSX and Ohio regulators

regarding reactivation and level of train activity on this line, Ohio would have been in a better position to respond to the increased risk. The PUCO has directed installation of five projects (gates and lights) since the reactivation of this line segment. These current projects include the following crossing locations: Main Street - FRA No. 155760V - Henry County; Kellogg Road - FRA No. 155794T - Wood County; Middletown Pike - FRA No. 155804T - Wood County; Eckel Junction Road - FRA No. 155818B - Wood County; Ford Road - FRA No. 155838M - Wood County.

F. Cleveland Specific Issues

Ohio supports the concept of a comprehensive approach to resolving environmental issues raised by the City of Cleveland and other area jurisdictions including Lake, Bay Village, Rocky River, Berea, and North Olmstead. Cleveland lies at the heart of Conrail's system, the crossing point of the so-called "Big X" through which more than 100 trains per day pass.

Ohio believes that the division of Conrail through Cleveland as envisioned in the proposed transaction may be workable but only from the railroad perspective. Ohio does not, however, believe it is the optimal plan when the adverse safety and environmental impacts are taken into account.

The City of Cleveland has outlined two alternative route configurations that would route most of the increased rail traffic that would result from the proposed acquisition through

Cleveland and neighboring industrial corridors. Capable engineers retained by the City of Cleveland have proposed concrete and workable solutions that would not only effectively move trains through Cleveland, and would ameliorate most of the worst adverse environmental impacts.[10]

In this light, Ohio recommends that the Joint Applicants in good faith negotiate the proposals as outlined in the attached press release (Exhibit 6) and resolve the substantial adverse environmental and safety impacts that will result from the proposed transaction.

Ohio realizes that it is asking the STB to take extraordinary action for Cleveland area issues. We trust that the STB recognizes that the tremendous adverse impacts to the Cleveland area from the proposed transaction make such extraordinary measures to ensure that the serious problem faced by Cleveland area communities will be resolved. Ohio strongly urges that the STB require that essential safety and environmental agreements between Cleveland area communities, State officials and the Applicants be concluded prior to any increase in existing traffic levels.

G. Arbitration

Ohio maintains that it is in the best position to assess and evaluate the nature and magnitude of Acquisition-related impacts

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[10] See Exhibit 7.

within its borders and to develop solutions that best recognize and address Ohio's unique circumstances. The SEA has indicated that it is considering making a recommendation to the Board that would require the Joint Applicants to participate in mediation and binding arbitration with local and state officials where grade separations are necessary to address Acquisition-related traffic delays. Executive Summary at ES-21. Ohio is opposed to SEA's suggestion for a number of reasons. Ohio is primarily responsible for the safety and health of its communities. Safety-related traffic routing and congestion issues are inherently local in nature and resolution of these issues, including who should bear the costs of mitigation measures, should be assessed and determined by Ohio officials. Ohio is actively pursuing remedial measures to address such situations through negotiations with the Joint Applicants. Ohio recognizes that costs of mitigation of safety and environmental problems arising from the proposed acquisition of Conrail are important issues and Ohio intends to continue working closely with the Joint Applicants to ensure that legitimate mitigation measures are implemented. As demonstrated by the B&O Agreement, Ohio is fully prepared to identify significantly impacted areas and develop responsive solutions through negotiated arrangements with the Joint Applicants. Any substantial increase of traffic over specific corridors should be conditioned on completion and commitment to negotiated agreements. Should fundamental differences arise in such negotiations, Ohio maintains that the

necessarily involved public safety and health issues do not lend themselves to resolution through arbitration or mediation. Rather, resort should be directly to the STB for its prompt resolution.

VI. CONCLUSION

There exist a number of unique circumstances facing Ohio as a result of the proposed Conrail acquisition application. Solutions to Ohio impacts must be tailored by responsible Ohio officials to specific facts and circumstances. Ohio maintains that impacts substantially affecting the safety, health and welfare of its citizens and communities are most effectively addressed through joint negotiations which allow all stakeholders to meaningfully participate in development of solutions. Ohio is ready, willing and able to accomplish fair and appropriate solutions through negotiations which must be concluded before traffic is increased over adversely affected corridors and communities which will otherwise suffer serious adverse effects to the detriment of all concerned.

Respectfully submitted,

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Dated: February 2, 1998

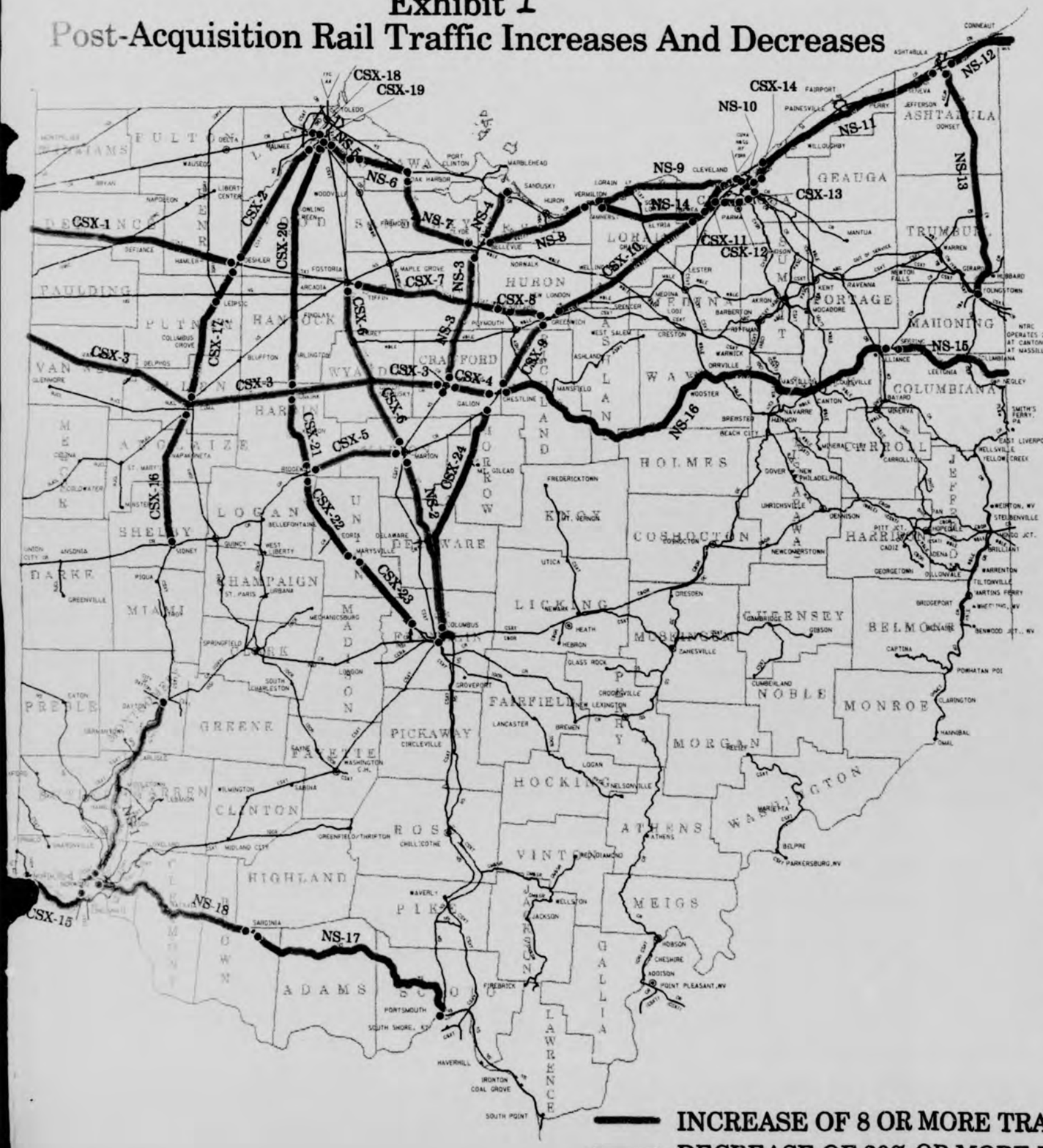
CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing Responsive Comments to Draft Environmental Impact Statement and Request for Protective Conditions, submitted on behalf of the Ohio Attorney General, Ohio Rail Development Commission, and the Public Utilities Commission of Ohio, was served by regular U.S. mail, postage prepaid, upon all parties of record, this 2nd day of February, 1998.

Keith G. O'Brien

Exhibit 1

Post-Acquisition Rail Traffic Increases And Decreases



Segment Number	Segment: From - To	Current Owner	Trains Per Day Pre-Acq.	Post-Acq.	Change	Percent Change
CSX-1	Willow Creek, IN - Deshler	CSX	21.40	47.70	+26.30	+ 123
CSX-2	Deshler - Toledo	CSX	0.60	14.20	+13.60	+2266
CSX-3	Adams, IN - Bucyrus	CR	5.90	13.90	+ 8.00	+ 135
CSX-4	Bucyrus - Crestline	CR	6.50	14.50	+ 8.00	+ 123
CSX-5	Ridgeway - Marion	CR	16.10	31.80	+15.70	+ 97
CSX-6	Marion - Fostoria	CR	17.80	27.40	+ 9.60	+ 54
CSX-7	Fostoria - Willard	CSX	32.50	54.00	+21.50	+ 66
CSX-8	Willard - Greenwich	CSX	32.50	55.20	+22.70	+ 69
CSX-9	Crestline - Greenwich	CR	14.50	31.30	+16.80	+ 116
CSX-10	Greenwich - Berea	CR	14.50	54.20	+39.70	+ 274
CSX-11	Berea - Short	CR	13.40	47.20	+33.80	+ 252
CSX-12	Short - Marcy	CR	16.40	45.80	+29.40	+ 179
CSX-13	Marcy - Mayfield	CR	3.40	43.80	+40.40	+1188
CSX-14	Mayfield - Quaker	CR	6.80	43.80	+37.00	+ 544
CSX-15	Mitchell, IN - Cincinnati	CSX	7.80	1.70	- 6.10	- 78
CSX-16	Sidney - Lima	CSX	22.60	15.30	- 7.30	- 32
CSX-17	Lima - Deshler	CR	26.50	14.90	-11.60	- 44
CSX-18	CP Maumee - Oak	CR	15.20	4.00	-11.20	- 74
CSX-19	Oak - Walbridge	CR	15.20	4.00	-11.20	- 74
CSX-20	Stanley - Dunkirk	CR	11.60	1.40	-10.20	- 88
CSX-21	Dunkirk - Ridgeway	CR	13.20	1.40	-11.80	- 89
CSX-22	Ridgeway - Marysville	CR	22.20	9.43	-12.77	- 57
CSX-23	Marysville - Darby	CR	22.20	5.00	-17.20	- 77
CSX-24	Columbus - Galion	CR	13.40	7.50	- 5.90	- 44
NS-1	Ivorydale - Dayton	CR	6.90	14.90	+ 8.00	+ 73
NS-2	Bucyrus - Fairgrounds Col.	NS	26.00	34.30	+ 8.30	+ 32
NS-3	Bucyrus - Bellevue	NS	26.00	34.50	+ 8.50	+ 33
NS-4	Bucyrus - Sandusky Dock	NS	1.40	11.70	+10.30	+ 736
NS-5	Airline - Miami	CR	55.40	64.00	+ 8.60	+ 16
NS-6	Oak Harbor - Miami	CR	48.00	61.50	+13.50	+ 28
NS-7	Oak Harbor - Bellevue	NS	7.70	27.20	+19.50	+ 253
NS-8	Bellevue - Vermilion	NS	15.60	27.00	+11.40	+ 73
NS-9	Vermilion - Cleveland	NS	13.50	34.10	+20.60	+ 152
NS-10	Cleveland - White	CR	12.50	29.70	+17.20	+ 135
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NS-15	Rochester - Alliance	CR	37.90	26.30	-11.60	- 31
NS-16	Alliance - Crestline	CR	19.10	4.10	-15.00	- 78
NS-17	Vera - Sardinia	NS	3.40	0.00	- 3.40	- 100
NS-18	Sardinia - Norwood	NS	3.40	1.70	- 1.70	- 50

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Adoption and Implementation of the Joint Railroad Corridor Safety Agreement for the CSX Transportation, Inc. B & O Rail Corridor.	))))	Case No. 97-1540-RR-UNC

ENTRY

The Commission finds:

(1) Section 4907.471, Revised Code, requires the Commission to survey all public crossings of railroads at grade and to devise a formula, consistent with applicable federal requirements, for determining the probability of accident at each such crossing, taking into account for each such crossing a variety of factors including volume of vehicular and train traffic, train type and speed, limitations of view, and intersection angle.

(2) Under this statute, the Commission also is required to classify all such public crossings according to such formula and to prepare a priority list for the protection of such crossings, giving highest priority to the crossings at which the Commission finds the highest probability of accident, and lowest priority to the ones at which it finds the least probability of accident.

(3) Pursuant to the priority ratings established as provided above, the Commission may direct the installation of warning devices at any such railroad highway grade crossing it determines to be in need of additional protective devices. The assignment of any part or all of the cost of the installation and subsequent maintenance of such devices shall be by the Commission in any proportion it determines proper that is consistent with any applicable federal requirements.

(4) On June 23, 1997, the Surface Transportation Board (STB) accepted for consideration the railroad control application and related filings submitted to the Board by the CSX Corporation and CSX Transportation, Inc. (collectively referred to as "CSX"); the Norfolk Southern Corporation and the Norfolk Southern Railway Company (collectively referred to as "NS"); and Conrail, Inc. and the Consolidated Rail Corporation (collectively referred to as "Conrail"). The railroad control application seeks STB approval for the acquisition by CSX and NS of control of Conrail and the division of Conrail's assets by

EXHIBIT 2

and between CSX and NS. The proposed transaction involves over 44,000 miles of rail lines and related facilities covering a large portion of the eastern United States. The proposed acquisition will have a dramatic and substantive impact on rail operations in the state of Ohio.

Currently, the state of Ohio has approximately 5,800 miles of rail line within its borders. Conrail is Ohio's largest railroad operating over approximately 1,700 miles of rail line. Within Ohio, CSX and NS currently operate over approximately 1,460 and 900 rail miles, respectively.

(5) On May 19, 1997, CSX announced plans to spend more than $220 million to upgrade rail service in Ohio and Indiana as part of an overall plan to maximize its pending acquisition of Conrail operations and assets. Included in this project was a proposal by CSX to lay approximately 113 miles of new parallel track along the 270-mile former B&O rail route between Chicago and Greenwich, Ohio. The announced improvements would eventually allow CSX to provide full double-track service on part of a CSX-Conrail route between Cleveland and Chicago.

The construction will include improvements to bridges, railroad connections, sidings and train control signals. CSX plans to upgrade about 75 miles of existing track in Ohio to accommodate faster trains. As part of its proposed updated and upgraded operations, CSX plans to increase the number of trains operating daily over the B&O corridor by approximately 70 percent and to increase the speed of those trains to 70 miles per hour. As a result, a greater number of trains traveling at greater speeds will traverse approximately 140 passively protected grade crossings along the B&O corridor.

(6) Prior to the STB filing and its announcements relative to Ohio operations, CSX approached Commission staff about safety concerns it had as a result of the anticipated increase in train traffic and speed along an expanded and upgraded B&O corridor. The Commission, in cooperation with the Ohio Rail Development Commission (ORDC), conducted a study of the CSX rail segments between Greenwich and the Indiana state line along the corridor to determine the impact the proposed CSX operations would have on safety at the grade crossings located along the corridor.

(7) Following the study, the PUCO and ORDC staff entered into negotiations with CSX for a joint project to enhance grade crossing safety in advance of the significant increase in train traffic and train speed along the B&O corridor. The goal of the project is to enhance safety at as many grade crossings along the corridor as possible before the anticipated increase commences. The result of the negotiations is the Railroad Corridor Safety Agreement attached to this entry and incorporated by reference herein.

(8) By using the factors set forth in Section 4907.471, Revised Code, and incorporating data related to the proposed post-Conrail operations of CSX on the B&O corridor, the Commission has identified the 39 grade crossings set forth in the agreement attached to this entry at which CSX has agreed to upgrade existing automatic warning devices to flashing lights and roadway gates. Further, the railroad and the staff have negotiated a cost sharing on these projects which provides that 44 percent of the cost of the project will be paid by CSX. The agreement also incorporates the recently negotiated "lump sum" payment concept which provides for further cost savings at the 26 crossings in this group which do not pose special engineering considerations. As is standard in agreements with railroads relative to the installation of warning devices, the cost of perpetual maintenance at each of these crossings will be borne by CSX.

(9) The agreement reached between the Commission, CSX and ORDC is unprecedented and is designed to proactively address heightened grade crossing safety concerns along the B&O corridor that will see a greater volume of CSX trains traveling at greater speeds. The parties have agreed to jointly share in the costs of the safety projects. The proposed agreement provides for project cost allocation that reflects the increased accident prediction formula ranking of the crossings caused by physical and operational changes at these locations and incorporates the cost savings achieved as a result of 39 simultaneous projects.

Additionally, the Commission and ORDC agree to work with CSX and local communities to identify whether any of the grade crossings identified herein may be closed to vehicular traffic as an alternative to the installation of warning devices. The agreement is flexible enough to account for that possibility by providing that in the event of a closure of a

crossing identified herein, any money otherwise to have been spent for the installation of active warning devices at such crossing shall be applied to safety upgrades at any location within the B&O corridor.

Finally, the agreement provides that CSX shall complete the projects within one year from the date the Commission adopts the agreement or the effective control date as authorized by the STB, whichever comes earlier.

(10) The parties do not view this agreement as answering all safety concerns or as concluding their joint efforts directed to enhance safety along the B&O corridor. Further, this agreement does not and cannot address other important concerns such as traffic congestion and emergency response in those areas affected by increased train traffic resulting from the Conrail acquisition. The parties contemplate further efforts on this corridor as well as on all other CSX rail lines that will experience an increase in train traffic generated by the acquisition of Conrail. Further, the Commission and the ORDC have begun preliminary discussions with NS to reach an agreement on similarly impacted NS rail corridors. Finally, this agreement does not preclude the Commission from taking whatever action it deems appropriate relative to rail safety on this corridor.

(11) Grade crossing safety is one of the Commission's highest priorities. In light of the increased operations by CSX as a result of its acquisition of operations and assets of Conrail, the Commission believes that this historic agreement goes a long way to address safety concerns along the B&O corridor. We appreciate the efforts of our staff, the ORDC and CSX in addressing safety issues related to the Conrail acquisition and commend them for their proactive response in this matter. The agreement is reasonable and should be adopted by this Commission.

(12) In order to provide for increased public safety during the pendency of these improvements, the Commission urges each local government agency with jurisdiction over the location of these crossings to make an immediate assessment of interim physical improvements which would enhance driver awareness of the crossing. The Commission will assist local governments with the cost of improvements such as rumble

strips, illumination, improved signage or other safety enhancements at these locations. Applications for this funding should be made to the Commission's Transportation Department, Rail Division, which shall review all proposals. In the event the Department finds the improvements appropriate, the Department director is hereby authorized to execute a contract with the government agency and obligate money from the state grade crossing safety fund for these improvements, not to exceed $3,000 per crossing. Similar assistance shall be extended to communities where previously authorized warning improvements are pending.

(13) Section 4905.54, Revised Code, requires every public utility or railroad and every officer of a public utility or railroad to comply with every order, direction and requirement of the Commission. That section further provides that any public utility or railroad which fails to comply with any order, direction or requirement of the Commission, shall forfeit to the state not more than $1,000 for each such failure, with each day's continuance of the violation being considered a separate offense. The Commission expects CSX to comply with this entry in a timely manner. However, the railroad's failure to so comply will subject it to the forfeiture provisions set forth in Section 4905.54, Revised Code.

It is, therefore,

ORDERED, That Railroad Corridor Safety Agreement entered into by and between Commission staff, ORDC and CSX Transportation, Inc. be adopted by the Commission. It is, further,

ORDERED, That as set forth in the agreement, projects for the installation of additional protective devices be authorized for the public grade crossings identified in the agreement. It is, further,

ORDERED, That the preliminary engineering and construction costs associated with these installation projects be funded as set forth in the Agreement. It is, further,

ORDERED, That in accordance with staff's recommendations, CSX submit with the Commission's Railroad Division, as soon as possible, site plans and proposed time schedules for the installation of automatic flashing lights and highway gates at the crossings set forth in the attached agreement and, additionally, CSX is directed to submit cost estimates for the crossings set forth in Schedule C of the agreement. It is, further,

ORDERED, That because this Entry only approves and adopts the attached agreement, CSX not commence with the acquisition of materials and construction without first having been so authorized by the Commission following the submission of all required plans and estimates. It is, further,

ORDERED, That the installation projects be completed at these crossings no later than November 25, 1998, or the effective date of control as authorized by the Surface Transportation Board in Finance Docket No. 33888, whichever comes first. It is, further,

ORDERED, That the railroad notify Commission staff and the ORDC at the time the installations are completed and the signals and lights are activated, at which time the devices may be inspected. It is, further,

ORDERED, That all interested local governmental entities having jurisdiction of the roadway at the crossings identified herein may apply for Commission funding of up to $3,000 for supplemental improvements at these crossings during the pendency of the construction projects by filing an application with the Commission's Transportation Department, Rail Division, as set forth in Finding 12. It is, further,

ORDERED, That a copy of this entry be served upon CSX Transportation, Inc.; the Ohio Rail Development Commission; the Board of Commissioners for Defiance, Hancock, Henry, Huron, Seneca and Wood counties; the mayors of Greenwich, Tiffin, Fostoria, Bairdstown, North Baltimore, Hamler, Holgate, and Defiance, Ohio; the Board of Trustees for Ripley Township (Huron County), Venice, Reed, Hopewell and Loudon Townships (Seneca County), Washington Township (Hancock County), Bloom and Jackson Townships (Wood County), Marion Township (Henry County), and Richland, Delaware and Mark Townships (Defiance County); and all other parties of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO

Craig A. Glazer, Chairman

Jolynn Barry Butler

Jolynn Barry Butler

Ronda Hartman Fergus

Ronda Hartman Fergus

David W. Johnson

Judith A. Jones

REM/vrh

Entered in the Journal
NOV 25 1997

A True Copy

Gary E. Vigorito
Secretary

RAILROAD CORRIDOR SAFETY AGREEMENT

This Railroad Corridor Safety Agreement is entered into by and among CSX Transportation, Inc. (CSXT or Railroad), the Ohio Rail Development Commission (ORDC) and the Public Utilities Commission of Ohio (PUCO) and is intended to facilitate the grade crossing safety improvements outlined herein.

RECITALS

WHEREAS, many of Ohio's public grade crossings are currently passively protected by crossbuck signage or equipped only with flashing warning lights;

WHEREAS, the PUCO has statutory authority to regulate to promote the welfare and safety of railroad employees and the traveling public pursuant to Ohio Revised Code 4905.04;

WHEREAS, the PUCO is responsible for evaluating public highway-railroad grade crossings to determine the need for upgrading active warning devices and apportioning the costs thereof pursuant to Ohio Revised Code 4907.471;

WHEREAS, the Federal Aid Highway Safety Act of 1973 and the Intermodal Surface Transportation Efficiency Act of 1991, and subsequent amendments thereto provide funding for the cost of safety upgrades to eliminate hazards at public grade crossings, which funding is administered jointly by the PUCO and ORDC pursuant to Ohio Revised Code Section 4907.476;

WHEREAS, the parties hereto propose to facilitate the improvements identified in this Agreement in accordance with the Federal Aid Policy Guide (FAPG) and applicable provisions of Title 23 of the United States Code pursuant to the terms hereof;

WHEREAS, CSXT is a principal party in a Finance Docket No. 33388, presently pending before the federal Surface Transportation Board (STB), jointly filed by CSXT and Norfolk Southern Corporation to gain control and operation of the rail transportation system of Consolidated Rail Corporation (the STB case);

WHEREAS, CSXT has identified a transportation corridor extending from Greenwich, Ohio in Huron Country to the Ohio/Indiana border at a point in Defiance County (the B&O corridor) that will require expansion of the existing transportation system to accommodate a greater volume of its trains traveling at higher rates of speed that are expected to result from the STB case;

WHEREAS, CSXT, ORDC, and the PUCO jointly desire to address heightened grade crossing safety concerns along the B&O corridor route that are presented as a result of increased CSXT train volumes and speeds expected along this route;

WHEREAS, CSXT, ORDC, and the PUCO wish to jointly share in the costs of enhancing public safety at B&O corridor grade crossings;

WHEREAS, this agreement is the product of extensive negotiations by and among CSXT, ORDC, and the PUCO to promote grade crossing safety within Ohio;

NOW THEREFORE, CSXT, ORDC, and PUCO agree as follows:

I. B&O CORRIDOR CROSSINGS

The B&O corridor railroad/highway grade crossing locations subject to this agreement are those identified on Schedule A attached hereto. This list may be modified by agreement of the parties. CSXT, ORDC, and the PUCO have reviewed all of the crossings on the B&O corridor and contemplate that the grade crossings listed on Schedule A will be targeted for installation of safety enhancements in the form of traffic gates and flashing lights to provide maximum warning for the traveling public of approaching train traffic.

PUCO/ORDC agree to compensate CSXT for the cost of grade crossing safety improvements pursuant to the terms of this Agreement. Additionally, PUCO/ORDC agree to work with CSXT and local communities to identify whether any of the grade crossing locations identified on Schedule A may be permanently closed to public vehicular traffic as an alternative to installation of automatic warning devices. Public grade crossing closures, if any, shall be separately identified and negotiated on a case-by-case basis. In the event of closure of a Schedule A grade crossing, money otherwise to have been applied for installation of active warning devices at that crossing shall be applied to safety upgrades at any location within the B&O corridor mutually agreed upon by the parties.

II. COSTS OF GRADE CROSSING SAFETY UPGRADES

A. Costs

PUCO/ORDC and CSXT agree that the Federal Accident Prediction Formula (FAPF) utilized by the PUCO to prioritize public grade crossings for federally-funded safety upgrades, constitutes an appropriate mechanism upon which to allocate the costs, as between CSXT and PUCO/ORDC of all safety upgrades contemplated under this Agreement. In this regard, the parties agree to an allocation that reflects the increased FAPF ranking of the crossings on Schedule B caused by physical and operational changes at these locations. On this basis, PUCO/ORDC and CSXT agree to pay 56% and 44% respectively of the costs associated with installation of safety upgrades at Schedule B crossing locations.

PUCO/ORDC and CSXT agree that the total price for all safety upgrades at crossings shown on Schedule B shall be determined with reference to the concepts

by the earlier of the effective control date as authorized by the Surface Transportation Board in Finance Docket No. 33888 or 12 months from the date of issuance by the PUCO of its order adopting this agreement, except as provided below. In the event of closure of any B&O corridor crossing as referenced in Section I of this Agreement, the completion date for installation of active warning devices at a crossing substituted therefor shall be negotiated by the parties but shall, in no event, exceed 12 months from the date on which the closure is finalized unless otherwise agreed by the Parties.

III. RECORD KEEPING REQUIREMENTS

The Railroad shall make all records, plans, correspondence and other materials associated with any safety improvement performed under this Agreement available for examination and reproduction by authorized representatives of the U.S. Government, the State of Ohio and/or their agents. All project records shall be maintained by the Railroad for three years after final acceptance of the project or three years after the resolution of any disputes that may arise as part of any project.

The Railroad will make available to the U.S. Government, State of Ohio, or their authorized agents, their books, records, papers and materials pertaining to the Railroad costs of performing improvements.

IV. TERMINATION

In the event the STB fails to approve the pending application in Finance Docket No. 33388, CSXT reserves the right to terminate further performance under this agreement upon terms mutually agreeable to the parties hereto. This Agreement shall otherwise terminate at the end of the next biennium, June 30, 1999. If the safety upgrades covered under this Agreement are not completed by that date, it is the expressed intention of the parties to renew this Agreement for a successive biennium period until such time as all work contemplated herein has been satisfactorily completed

Any renewal thereof is subject to the determination by PUCO/ORDC that sufficient funds and the authority to spend funds have been provided by the Ohio General Assembly to ORDC for the purposes of this Agreement and to the certification of funds by the Office of Budget and Management as required by the Ohio Revised Code, Section 126.07. If PUCO/ORDC determines that sufficient funds have not been appropriated for the purposes of this Stipulation, of it the Office of Budget and Management fails to certify the availability of funds, this Agreement will be terminated.

V. OHIO ETHICS LAW REQUIREMENTS

The Railroad agrees to adhere to the requirements of Ohio Ethics Law as provided by Section 102.04 of the Ohio Revised Code. O.R.C. Section 102.04 (A) prohib-

Respectfully submitted,

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(614) 644-0306
FAX: (614) 728-4520

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(202) 785-3700

Dated: February 2, 1998

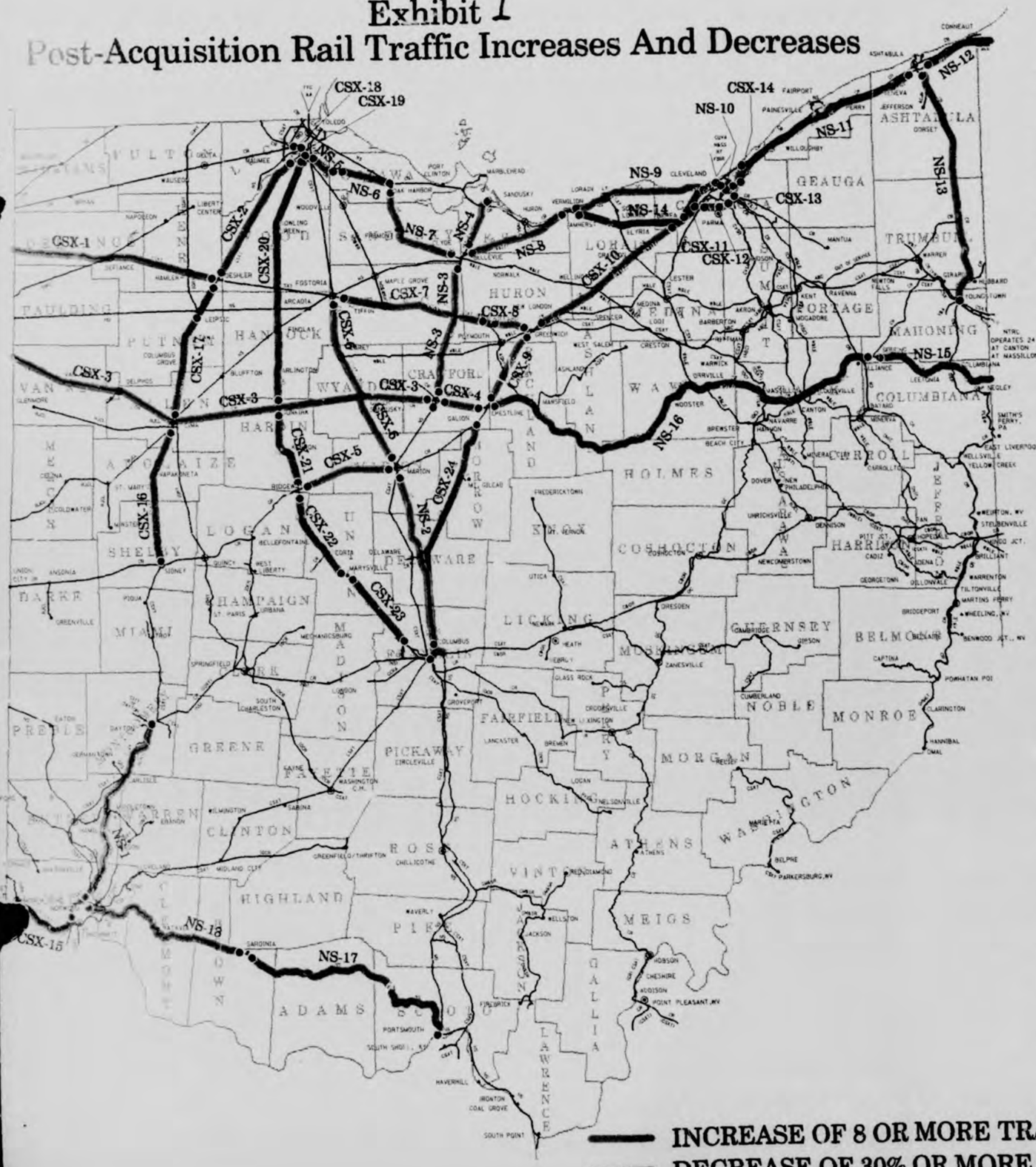
CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing Responsive Comments to Draft Environmental Impact Statement and Request for Protective Conditions, submitted on behalf of the Ohio Attorney General, Ohio Rail Development Commission, and the Public Utilities Commission of Ohio, was served by regular U.S. mail, postage prepaid, upon all parties of record, this 2nd day of February, 1998.

Keith G. O'Brien

Exhibit 1

Post-Acquisition Rail Traffic Increases And Decreases



Segment Number	Segment: From - To	Current Owner	Trains Per Day Pre-Acq.	Trains Per Day Post-Acq.	Change	Percent Change
CSX-1	Willow Creek, IN - Deshler	CSX	21.40	47.70	+26.30	+ 123
CSX-2	Deshler - Toledo	CSX	0.60	14.20	+13.60	+2266
CSX-3	Adams, IN - Bucyrus	CR	5.90	13.90	+ 8.00	+ 135
CSX-4	Bucyrus - Crestline	CR	6.50	14.50	+ 8.00	+ 123
CSX-5	Ridgeway - Marion	CR	16.10	31.80	+15.70	+ 97
CSX-6	Marion - Fostoria	CR	17.80	27.40	+ 9.60	+ 54
CSX-7	Fostoria - Willard	CSX	32.50	54.00	+21.50	+ 66
CSX-8	Willard - Greenwich	CSX	32.50	55.20	+22.70	+ 69
CSX-9	Crestline - Greenwich	CR	14.50	31.30	+16.80	+ 116
CSX-10	Greenwich - Berea	CR	14.50	54.20	+39.70	+ 274
CSX-11	Berea - Short	CR	13.40	47.20	+33.80	+ 252
CSX-12	Short - Marcy	CR	16.40	45.80	+29.40	+ 179
CSX-13	Marcy - Mayfield	CR	3.40	43.80	+40.40	+1188
CSX-14	Mayfield - Quaker	CR	6.80	43.80	+37.00	+ 544
CSX-15	Mitchell, IN - Cincinnati	CSX	7.80	1.70	- 6.10	- 78
CSX-16	Sidney - Lima	CSX	22.60	15.30	- 7.30	- 32
CSX-17	Lima - Deshler	CR	26.50	14.90	-11.60	- 44
CSX-18	CP Maumee - Oak	CR	15.20	4.00	-11.20	- 74
CSX-19	Oak - Walbridge	CR	15.20	4.00	-11.20	- 74
CSX-20	Stanley - Dunkirk	CR	11.60	1.40	-10.20	- 88
CSX-21	Dunkirk - Ridgeway	CR	13.20	1.40	-11.80	- 89
CSX-22	Ridgeway - Marysville	CR	22.20	9.43	-12.77	- 57
CSX-23	Marysville - Darby	CR	22.20	5.00	-17.20	- 77
CSX-24	Columbus - Galion	CR	13.40	7.50	- 5.90	- 44
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NS-3	Bucyrus - Bellevue	NS	26.00	34.50	+ 8.50	+ 33
NS-4	Bucyrus - Sandusky Dock	NS	1.40	11.70	+10.30	+ 736
NS-5	Airline - Miami	CR	55.40	64.00	+ 8.60	+ 16
NS-6	Oak Harbor - Miami	CR	48.00	61.50	+13.50	+ 28
NS-7	Oak Harbor - Bellevue	NS	7.70	27.20	+19.50	+ 253
NS-8	Bellevue - Vermilion	NS	15.60	27.00	+11.40	+ 73
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INCREASE OF 8 OR MORE TRAINS PER DAY

DECREASE OF 30% OR MORE PER DAY

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Additionally, the Commission and ORDC agree to work with CSX and local communities to identify whether any of the grade crossings identified herein may be closed to vehicular traffic as an alternative to the installation of warning devices. The agreement is flexible enough to account for that possibility by providing that in the event of a closure of a

crossing identified herein, any money otherwise to have been spent for the installation of active warning devices at such crossing shall be applied to safety upgrades at any location within the B&O corridor.

Finally, the agreement provides that CSX shall complete the projects within one year from the date the Commission adopts the agreement or the effective control date as authorized by the STB, whichever comes earlier.

(10) The parties do not view this agreement as answering all safety concerns or as concluding their joint efforts directed to enhance safety along the B&O corridor. Further, this agreement does not and cannot address other important concerns such as traffic congestion and emergency response in those areas affected by increased train traffic resulting from the Conrail acquisition. The parties contemplate further efforts on this corridor as well as on all other CSX rail lines that will experience an increase in train traffic generated by the acquisition of Conrail. Further, the Commission and the ORDC have begun preliminary discussions with NS to reach an agreement on similarly impacted NS rail corridors. Finally, this agreement does not preclude the Commission from taking whatever action it deems appropriate relative to rail safety on this corridor.

(11) Grade crossing safety is one of the Commission's highest priorities. In light of the increased operations by CSX as a result of its acquisition of operations and assets of Conrail, the Commission believes that this historic agreement goes a long way to address safety concerns along the B&O corridor. We appreciate the efforts of our staff, the ORDC and CSX in addressing safety issues related to the Conrail acquisition and commend them for their proactive response in this matter. The agreement is reasonable and should be adopted by this Commission.

(12) In order to provide for increased public safety during the pendency of these improvements, the Commission urges each local government agency with jurisdiction over the location of these crossings to make an immediate assessment of interim physical improvements which would enhance driver awareness of the crossing. The Commission will assist local governments with the cost of improvements such as rumble

strips, illumination, improved signage or other safety enhancements at these locations. Applications for this funding should be made to the Commission's Transportation Department, Rail Division, which shall review all proposals. In the event the Department finds the improvements appropriate, the Department director is hereby authorized to execute a contract with the government agency and obligate money from the state grade crossing safety fund for these improvements, not to exceed $3,000 per crossing. Similar assistance shall be extended to communities where previously authorized warning improvements are pending.

(13) Section 4905.54, Revised Code, requires every public utility or railroad and every officer of a public utility or railroad to comply with every order, direction and requirement of the Commission. That section further provides that any public utility or railroad which fails to comply with any order, direction or requirement of the Commission, shall forfeit to the state not more than $1,000 for each such failure, with each day's continuance of the violation being considered a separate offense. The Commission expects CSX to comply with this entry in a timely manner. However, the railroad's failure to so comply will subject it to the forfeiture provisions set forth in Section 4905.54, Revised Code.

It is, therefore,

ORDERED, That Railroad Corridor Safety Agreement entered into by and between Commission staff, ORDC and CSX Transportation, Inc. be adopted by the Commission. It is, further,

ORDERED, That as set forth in the agreement, projects for the installation of additional protective devices be authorized for the public grade crossings identified in the agreement. It is, further,

ORDERED, That the preliminary engineering and construction costs associated with these installation projects be funded as set forth in the Agreement. It is, further,

ORDERED, That in accordance with staff's recommendations, CSX submit with the Commission's Railroad Division, as soon as possible, site plans and proposed time schedules for the installation of automatic flashing lights and highway gates at the crossings set forth in the attached agreement and, additionally, CSX is directed to submit cost estimates for the crossings set forth in Schedule C of the agreement. It is, further,

ORDERED, That because this Entry only approves and adopts the attached agreement, CSX not commence with the acquisition of materials and construction without first having been so authorized by the Commission following the submission of all required plans and estimates. It is, further,

ORDERED, That the installation projects be completed at these crossings no later than November 25, 1998, or the effective date of control as authorized by the Surface Transportation Board in Finance Docket No. 33888, whichever comes first. It is, further,

ORDERED, That the railroad notify Commission staff and the ORDC at the time the installations are completed and the signals and lights are activated, at which time the devices may be inspected. It is, further,

ORDERED, That all interested local governmental entities having jurisdiction of the roadway at the crossings identified herein may apply for Commission funding of up to $3,000 for supplemental improvements at these crossings during the pendency of the construction projects by filing an application with the Commission's Transportation Department, Rail Division, as set forth in Finding 12. It is, further,

ORDERED, That a copy of this entry be served upon CSX Transportation, Inc.; the Ohio Rail Development Commission; the Board of Commissioners for Defiance, Hancock, Henry, Huron, Seneca and Wood counties; the mayors of Greenwich, Tiffin, Fostoria, Bairdstown, North Baltimore, Hamler, Holgate, and Defiance, Ohio; the Board of Trustees for Ripley Township (Huron County), Venice, Reed, Hopewell and Loudon Townships (Seneca County), Washington Township (Hancock County), Bloom and Jackson Townships (Wood County), Marion Township (Henry County), and Richland, Delaware and Mark Townships (Defiance County); and all other parties of record.

THE PUBLIC UTILITIES COMMISSION OF OHIO

Craig A. Glazer, Chairman

Jolynn Barry Butler

Ronda Hartman Fergus

David W. Johnson

Judith A. Jones

REM/vrh

Entered in the Journal
NOV 25 19

A True Copy

Gary E. Vigorito
Secretary

RAILROAD CORRIDOR SAFETY AGREEMENT

This Railroad Corridor Safety Agreement is entered into by and among CSX Transportation, Inc. (CSXT or Railroad), the Ohio Rail Development Commission (ORDC) and the Public Utilities Commission of Ohio (PUCO) and is intended to facilitate the grade crossing safety improvements outlined herein.

RECITALS

WHEREAS, many of Ohio's public grade crossings are currently passively protected by crossbuck signage or equipped only with flashing warning lights;

WHEREAS, the PUCO has statutory authority to regulate to promote the welfare and safety of railroad employees and the traveling public pursuant to Ohio Revised Code 4905.04;

WHEREAS, the PUCO is responsible for evaluating public highway-railroad grade crossings to determine the need for upgrading active warning devices and apportioning the costs thereof pursuant to Ohio Revised Code 4907.471;

WHEREAS, the Federal Aid Highway Safety Act of 1973 and the Intermodal Surface Transportation Efficiency Act of 1991, and subsequent amendments thereto provide funding for the cost of safety upgrades to eliminate hazards at public grade crossings, which funding is administered jointly by the PUCO and ORDC pursuant to Ohio Revised Code Section 4907.476;

WHEREAS, the parties hereto propose to facilitate the improvements identified in this Agreement in accordance with the Federal Aid Policy Guide (FAPG) and applicable provisions of Title 23 of the United States Code pursuant to the terms hereof;

WHEREAS, CSXT is a principal party in a Finance Docket No. 33388, presently pending before the federal Surface Transportation Board (STB), jointly filed by CSXT and Norfolk Southern Corporation to gain control and operation of the rail transportation system of Consolidated Rail Corporation (the STB case);

WHEREAS, CSXT has identified a transportation corridor extending from Greenwich, Ohio in Huron Country to the Ohio/Indiana border at a point in Defiance County (the B&O corridor) that will require expansion of the existing transportation system to accommodate a greater volume of its trains traveling at higher rates of speed that are expected to result from the STB case;

WHEREAS, CSXT, ORDC, and the PUCO jointly desire to address heightened grade crossing safety concerns along the B&O corridor route that are presented as a result of increased CSXT train volumes and speeds expected along this route;

WHEREAS, CSXT, ORDC, and the PUCO wish to jointly share in the costs of enhancing public safety at B&O corridor grade crossings;

WHEREAS, this agreement is the product of extensive negotiations by and among CSXT, ORDC, and the PUCO to promote grade crossing safety within Ohio;

NOW THEREFORE, CSXT, ORDC, and PUCO agree as follows:

I. B&O CORRIDOR CROSSINGS

The B&O corridor railroad/highway grade crossing locations subject to this agreement are those identified on Schedule A attached hereto. This list may be modified by agreement of the parties. CSXT, ORDC, and the PUCO have reviewed all of the crossings on the B&O corridor and contemplate that the grade crossings listed on Schedule A will be targeted for installation of safety enhancements in the form of traffic gates and flashing lights to provide maximum warning for the traveling public of approaching train traffic.

PUCO/ORDC agree to compensate CSXT for the cost of grade crossing safety improvements pursuant to the terms of this Agreement. Additionally, PUCO/ORDC agree to work with CSXT and local communities to identify whether any of the grade crossing locations identified on Schedule A may be permanently closed to public vehicular traffic as an alternative to installation of automatic warning devices. Public grade crossing closures, if any, shall be separately identified and negotiated on a case-by-case basis. In the event of closure of a Schedule A grade crossing, money otherwise to have been applied for installation of active warning devices at that crossing shall be applied to safety upgrades at any location within the B&O corridor mutually agreed upon by the parties.

II. COSTS OF GRADE CROSSING SAFETY UPGRADES

A. Costs

PUCO/ORDC and CSXT agree that the Federal Accident Prediction Formula (FAPF) utilized by the PUCO to prioritize public grade crossings for federally-funded safety upgrades, constitutes an appropriate mechanism upon which to allocate the costs, as between CSXT and PUCO/ORDC of all safety upgrades contemplated under this Agreement. In this regard, the parties agree to an allocation that reflects the increased FAPF ranking of the crossings on Schedule B caused by physical and operational changes at these locations. On this basis, PUCO/ORDC and CSXT agree to pay 56% and 44% respectively of the costs associated with installation of safety upgrades at Schedule B crossing locations.

PUCO/ORDC and CSXT agree that the total price for all safety upgrades at crossings shown on Schedule B shall be determined with reference to the concepts

set forth in the "Lump Sum" agreement recently negotiated between PUCO/ORDC and CSXT. In accordance with that agreement, PUCO/ORDC and CSXT agree that the total price for each Schedule B crossing safety improvement shall be $81,600, an amount calculated with reference to the PUCO/ORDC-CSXT agreed upon lump sum amount for double track signal territory crossings with motion sensor circuitry, which is $96,000, and further discounted by 15 percent. The parties acknowledge and agree that the costs of preliminary engineering are included in this amount.

B. Special Circumstances

The parties have identified certain characteristics at particular grade crossings located within the B&O corridor for which installation of active safety warning devices will require more engineering design work thereby increasing the cost required for performing the installation. This includes "railroad control points," which are those locations where there may exist a public crossing in close proximity to another grade crossing such that warning device signal circuits overlap, a track cross-over, a controlled track switch, or an interlocker. These grade crossings are listed on the attached Schedule C.

The actual cost of safety upgrades at each grade crossing identified on Schedule C shall be allocated as between CSXT and PUCO/ORDC in the same manner as specified in Section II (A), without discount. All billings shall be subject to the same provisions outlined in Section II (C), except that one hundred percent of preliminary engineering costs incurred for safety improvements to Schedule C crossings shall be reimbursed with state funds provided by the PUCO.

C. Billing

The railroad may bill ORDC monthly or periodically for materials and work completed. Progressive invoices may be submitted for work performed during the previous month or period showing the portion of the Lump Sum amount that is due the Railroad. The Railroad shall be paid the agreed upon price for each improvement upon final acceptance by the ORDC of work performed on that improvement. A final bill shall be submitted to ORDC within ninety (90) days after completion of improvement. Upon completion of installation of warning device improvements and inspection of same by the Railroad, the Railroad shall promptly activate the warning devices for public use. The Railroad shall provide written notification to PUCO of the date(s) on which the Railroad inspected the devices and placed them into public service. A project shall be deemed completed when the grade crossing safety improvement is activated for use by the public. ORDC shall pay all invoices within thirty (30) days after receipt of a proper invoice.

D. Completion

The Railroad shall complete the safety upgrades on the B&O corridor crossings listed on Schedule A and as may be amended by the parties from time to time,