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improve the safety of hazardous materials transportation. This has resulted in superior safety records for both CSX and NS compared to industry averages.

As part of their separate efforts to continually improve safety performance in transportation, both CSX and NS are Responsible Care® Partners. The Responsible Care® program was established by the Chemical Manufacturers Association (CMA) in 1988 as a proactive self-regulating approach to improving health, safety and environmental performance. The goal was to improve CMA members' performance in these areas to reduce the need and potential for additional government regulation.

The Responsible Care® Partnership program extends Responsible Care® requirements to non-CMA members including transportation companies which apply to join. Partners must align internal management practices to meet or continuously improve toward meeting established codes. The codes include: Community Awareness and Emergency Response; Process Safety; Pollution Prevention; Safe Distribution; Employee Health and Safety; and Product Stewardship.

CSX and NS are each fully committed to this proactive effort with their CMA customers to improve the safe transportation of chemicals and hazardous materials.

CSX and NS would continue to transport all hazardous materials in compliance with the U.S. Department of Transportation Federal Hazardous Materials Regulations (49 CFR Parts 171 to 180).

CSX Discussion

In 1996, CSX transported 4,566,000 carloads of freight on its 18,500 mile route system. Approximately, 7.4 percent of those shipments were hazardous materials, representing a total of about 337,500 carloads in 1996. These hazardous shipments moved primarily on routes designated as Key Routes in accordance with the Inter-Industry Task Force recommendations. CSX's Key Routes consist of 5538 miles or about 30 percent of CSX's total route system. CSX does not anticipate any increase in the percentage of hazardous materials relative to nonhazardous materials transported on its system as a result of the Acquisition. The vast majority of the increased traffic that CSX traffic studies predict would divert to its system from current truck and barge carriage is nonhazardous, particularly with respect to the predicted diversions to the CSX intermodal network. For that reason, it is likely that the percentage of hazardous freight relative to nonhazardous freight transported by CSX would decline as a result of the traffic increases attributable to the Acquisition. Further, as discussed in Section 1.2.4, the diversion of freight, including hazardous freight, from truck to rail should result generally in an enhancement in safety due to the better safety record of rail transport in comparison to truck transport.

Although the quantity of hazardous commodities transported may increase, the proposed Acquisition would not affect the policies or operation of CSX concerning the type of hazardous materials transported or the methods used to safeguard shipments.

In 1996, CSX submitted 169 Department of Transportation (DOT) F 5800.1 reportable incident reports, most for minor releases. Therefore, more than 99.9 percent of hazardous material shipments arrived at their destination on CSX without a release incident.

CSX operating principles include standards and procedures for the handling and disposal of chemical products and wastes, and adherence to standards governing safe transportation of hazardous materials. Employees are provided with environmental awareness training that includes verbal and written statements of operating practices, as well as training sessions. Hazardous Materials Rules have been developed, and are included in the CSX Operating Procedures Manual; these rules were developed to govern the switching and handling of cars containing hazardous materials, substances or wastes. These procedures include a requirement that operating personnel have in their possession, and know how to use, the Emergency Response Guidebook (DOT P 5800.6) developed by the U.S. Department of Transportation.

CSX has a full-time staff of hazardous materials managers, two at its headquarters in Jacksonville and five strategically located throughout the CSX system. This group responds to and/or provides coordination with contractors and with emergency response personnel of any incident involving hazardous materials. This group also conducts inspections to insure compliance with U.S. Department of Transportation regulations and training for CSX employees and pre-emergency planning and response training for communities along the CSX network.

The emergency plans prepared by CSX are detailed and include a state listing of all agencies to be contacted in the event of an emergency. As part of its emergency response planning, CSX has developed PACE (Preventing Accidental Chemical Emergencies); copies of this document are available at appropriate locations, including rail yards, and include emergency procedures to be followed in the event of a hazardous material release. Telephone numbers for emergency responders (e.g., police, ambulance, fire department) are provided. In the event of a hazardous release, CSX has five field managers who will respond to provide remediation oversight; remediation is performed by qualified contractors who are retained by CSX to respond in the event releases occur.

Initial post-Acquisition plans would continue to be governed by existing emergency response plans, with improvements developed and implemented on an on-going basis, as required.

NS Discussion

Currently, 5.6 percent of NS's traffic consists of hazardous materials, representing a total of about 254,834 carloads in 1996. These hazardous material shipments moved primarily on routes designated as key routes (NS defines these as routes with annual hazardous materials traffic exceeding 9,000 carloads. This definition is more restrictive than the Inter-Industry Task Force Recommendations). In 1995, NS key routes consisted of 6,423 miles. NS does not anticipate any increase in the percentage of hazardous materials relative to nonhazardous materials transported on its system as a result of the Acquisition. The vast majority of the increased traffic that NS traffic studies predict would divert to its system from current truck carriage is nonhazardous, particularly with respect to the predicted diversions to the NS intermodal network. For that reason, it is likely that the percentage of hazardous freight relative to nonhazardous freight transported by NS would decline as a result of the traffic increases attributable to the

Acquisition. Further, the diversion of freight, including hazardous freight, from truck to rail should result generally in an enhancement in safety due to the better safety record of rail transport in comparison to truck transport.

NS's environmental policy requires employees to understand and comply with environmental requirements. To assure that NS employees are aware of individual and corporate responsibilities for protection of the environment, NS implemented environmental awareness training for all employees. NS also implemented and regularly provides hazardous materials training for all employees with duties related to hazardous materials transportation. NS is involved with local communities in providing training for fire, police and emergency response departments. NS is also involved in community outreach programs. NS has received numerous safety and service awards, including the Harriman Gold Safety Award for the last eight years. The Harriman Gold Safety Award is the highest safety honor for railroads.

NS transported 254,924 shipments of hazardous materials in 1996. During the same year, NS had a company record low total of 90 Department of Transportation (DOT) F 5800.1 reportable incidents, mostly minor in nature. Over 99.96 percent of the hazardous materials shipments arrived at their destination without incident.

The proposed Acquisition would not affect the NS policies or operating procedures governing the transport of hazardous materials. Although the quantities of materials transported may increase, the Acquisition would not affect the type of materials handled. NS would adopt the best from existing NS and Conrail methods used to safeguard shipments and focus on more improvements.

NS developed and maintains corporate and divisional Emergency Action Plans based on the principles of Prevention, Preparedness, Response and Remediation. In the event of a hazardous material incident, NS implements its Emergency Action Plans. These plans would be revised to reflect changes in systemwide operations implemented as part of the Acquisition.

Prevention of incidents is the primary challenge, with a goal of zero incidents. Prevention efforts include: hazardous materials training of employees; compliance with regulations, operating rules, safety rules and industry recommended operating practices; maintenance of the railroad's infrastructure and equipment; and risk assessment to target and prioritize opportunities to improve performance.

Preparedness to respond includes: distribution and maintenance of the written response plans, instructions, guidelines and contact lists of agencies, personnel and contractors; training employees, fire departments and other public emergency response personnel how to handle hazardous materials incident responsibilities; conducting emergency response exercises; and conducting hazardous materials audits.

Response efforts are taken to prevent or minimize any detrimental effects to health, safety and the environment arising from releases of hazardous materials. Response efforts include: safe initial assessment of an incident; a structured system for reporting the response to government agencies, the shipper(s) and company personnel; and an established network of qualified emergency response contractors across the NS system which are mobilized as indicated by the location and nature of incidents. Ten full-time NS Environmental Operations Engineers are located strategically throughout the NS system to respond to incidents, supervise the response and remediation efforts of contractors, and coordinate with regulatory agencies.

Remediation efforts bring the incident to a close and restore the environment and affected area. Remediation tasks include assessment of the site, contamination and risks; development of a corrective action plan; corrective action; and confirmation assessment. Remediation of serious incidents is typically performed in cooperation with and under the supervision of regulatory authorities.

In addition to systemwide and division Emergency Action Plans, NS has Spill Prevention Control and Countermeasure (SPCC) plans, Facility Response Plans (FRPs), and Hazardous Waste Management plans at numerous fixed facilities. Conrail has an analogous set of response plans. Initial post-Acquisition activities would continue to be governed by the existing plans. Revised systemwide plans would be developed and implemented after the Acquisition to govern the Conrail assets operated by NS.

Shared Assets Areas Discussion

CSX and NS are both committed to effective and safe management of Shared Assets Areas, including hazardous materials transportation and incident response. Currently, Conrail has hazardous materials compliance programs and response plans for areas that would become Shared Assets Areas (North Jersey, South Jersey/Philadelphia, and Detroit, MI). Initially, Conrail's programs and plans would remain in place after the Acquisition. Any changes to these plans and practices would be drawn from the best management practices of Conrail, CSX and NS.

3.3.4 Hazardous Waste Sites / Spill Sites on the Right-of-Way

The proposed Acquisition would have no effect on the number or nature of known hazardous waste sites along the CSX or NS rights-of-way. CSX, NS and Conrail have policies to comply with all environmental requirements.

CSX's, NS's and Conrail's hazardous material reportable incidents from 1991 through 1995 are summarized in Tables F-1, F-2 and F-3, respectively, in Appendix F to Part 1 of this ER. These incidents are reported according to Federal Railroad Administration requirements. Most of the incidents involve low quantity releases caused by improper shipper securement of tank car valves. (The tank cars are normally not owned or maintained by railroads.) Most of these incidents have little or no environmental impact. As described in Section 1.2.4.3, when an incident occurs that does result in environmental contamination, response efforts include remediating the site. Post-Acquisition, CSX and NS would continue to follow appropriate emergency response procedures outlined in their Emergency Response Plans in the case of a hazardous materials spill.

4.0 SUMMARY OF RAIL YARDS AND INTERMODAL FACILITIES IMPACTS

The Acquisition will provide opportunities to modify and consolidate operations of rail yards and intermodal facilities for increased efficiency. Rail yards are used to switch and sort rail cars and assemble trains. They vary in size, ranging from small support yards with a few tracks to large classification yards with dozens of tracks. Intermodal facilities are specialized rail yards where truck trailers or containers are transferred between trains and trucks or between trains and ocean carriers. The proposed changes to these facilities are discussed in more detail in Part 2 of this ER, along with the environmental effects on air quality, noise, transportation, and safety associated with the changes.

Proposed changes in carload activity at five CSX, nine NS, and one Shared Assets Area rail yards have been studied for air quality based on STB thresholds. No CSX or Shared Assets Area rail yards met the STB thresholds for noise analysis; four NS yards met the thresholds. In addition, there are five CSX, 18 NS, and no Shared Assets Area intermodal facilities at which STB thresholds for truck activity would require environmental evaluations.

Rail yard and intermodal facility air quality, noise, transportation and safety impacts were evaluated on a site-specific basis. Changes in truck and rail traffic at these facilities are not expected to affect other environmental resources. Construction activities planned by CSX at two rail yards related to a new intermodal and a fueling facility are discussed in Part 4, Proposed Construction Projects.

4.1 AIR QUALITY

The same six pollutants quantified for rail line segments were analyzed on a site specific basis for each rail yard and intermodal facility that met the STB thresholds. Emissions increases were estimated for switch locomotives, lift equipment, yard trucks, and over-the-road trucks based on predicted operating scenarios. No federal program designed to control air emissions applies directly to the proposed Acquisition and subsequent operational changes. It was determined that the Clean Air Act's New Source Review criteria are the most appropriate benchmarks for evaluation of increased air emissions from rail yards and intermodal facilities, even though they apply only to stationary sources and not to mobile sources such as rail equipment or other rail facilities. A more detailed explanation of the methodologies used for the air quality analyses of rail yards and intermodal facilities is presented in Appendix A in this Part 1.

The estimated emission increases at each rail yard and intermodal facility were individually compared to the New Source Review Criteria. There are no CSX, NS, or Shared Assets Area rail yards or intermodal facilities that would experience increased emissions from the proposed Acquisition in excess of the New Source Review Criteria.

There are no readily applicable benchmarks for the emissions of locomotives moving over rail lines.[1] The U.S. Environmental Protection Agency has proposed air emission standards for locomotives at 62 Federal Register 6366-6405 (February 11, 1997). If these proposed air regulations are adopted, CSX and NS will comply with them. Under these rules air pollutant emissions from rail traffic will be reduced locally and systemwide. The beneficial effect of diverting freight from trucks to rail would thus become even greater than reported herein.

4.2 NOISE

Overall, the Acquisition would result in increases in noise levels in areas where rail yard and intermodal activities would increase and offsetting reductions in noise where rail yard and intermodal activities would decrease. Noise reductions are not analyzed in this ER; only the impacts from increases in excess of STB thresholds are analyzed. Rail-to-rail diversions and internal rerouting of rail traffic are expected to have approximately equivalent and offsetting increases and decreases in noise impacts.

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[1]Under EPA's regulations governing conformity of general federal actions in nonattainment and maintenance areas with federal and state air quality implementation plans, railroad control transactions are not subject to the General Conformity criteria (40 CFR 51.852). Moreover, the General Conformity criteria are area-specific and, in many areas, have not been fully developed or clearly defined. Therefore, the General Conformity criteria do not provide appropriate benchmarks for assessing the air emissions of the Acquisition.

Activity changes for each rail yard and intermodal facility of CSX, NS and Conrail were evaluated against the STB noise thresholds to identify those rail facilities (rail yards and intermodal facilities) where increased activity would meet the STB thresholds for noise analysis. Four rail yards and 23 intermodal facilities would experience increases in activity that meet STB noise thresholds.

Noise impacts from increases in overall noise levels at sensitive receptor sites (eg., residences, schools, hospitals, and churches) were analyzed for all locations where planned operational changes meet the STB's noise analysis thresholds. Analyses were performed to identify where the noise level would increase by 2 dBA or greater and be above 65 dBA. In areas that would experience such an increase, noise-sensitive receptors within the pre-Acquisition and post-Acquisition 65 dBA Ldn contour were counted.

Although there were several rail yards or intermodal facilities that exceeded a 2dB increase, none of the facilities' 65 Ldn contours extended beyond railroad properties. Therefore, no sensitive noise receptors were affected by increased activity at rail yards or intermodal facilities.

4.3 TRANSPORTATION

In considering the environmental impacts of the proposed Acquisition, the STB's regulations at 49 CFR 1105.7(e)(2) require a description of the effects of the proposed action on local or regional transportation systems and patterns, and an estimate of the amount of freight traffic that would be diverted to other transportation systems or modes as a result of the proposed action. The effects on the national transportation system were also analyzed.

For the purposes of this analysis, the local transportation system was defined as the local road network between affected intermodal facilities and the regional transportation system. The regional transportation system was defined as major regional and/or metropolitan roads and state highways. The national transportation system was defined as the interstate highway system.

Increases in truck traffic at intermodal facilities were calculated to determine which facilities would meet STB evaluation thresholds for air quality and noise. The projected post Acquisition intermodal lift activity was determined by CSX and NS. Assumptions were developed, based on actual operating data where available, to estimate changes in the number of trucks using each facility.

Impacts on local and regional transportation systems and patterns were analyzed for any intermodal facility that would experience an average increase in truck traffic of more than 10 percent of the average daily traffic or at least 50 vehicles a day. Any impacts (i.e., increases in traffic levels) would result from additional trucks entering and exiting intermodal facilities to pick up and/or drop off freight trailers or containers. Increases in local truck activity near intermodal facilities could result from anticipated truck-to-rail diversions, rail-to-rail diversions, and extended hauls transported on the expanded CSX and NS systems. Although some rail yards will experience increases in rail activity, there are no highway related transportation impacts from rail yard activity changes since there is no corresponding truck traffic generated.

A summary of truck-to-rail diversions is provided in Table 1-32. These diversions would result in increased local truck traffic into and out of intermodal facilities with consequential decreases in long-haul traffic on the national highway transportation system. The decreases in long-haul traffic would reduce traffic congestion and enhance safety on the national highway transportation system.

Table 1-32
Truck-to-Rail Diversions

	CSX	NS	Total
Truck trips removed from national highways	437,978	589,000*	1,026,978
Truck miles expected to be saved annually	402,900,000	379,200,000*	782,100,000
Note: Net systemwide energy savings are discussed in more detail in Section 1.2.5.2. *NS projects a larger number of shorter length intermodal trips resulting from diversions than does CSX.			

A detailed discussion of the transportation methodology is provided in Appendix C to Part 1 of this ER.

5.0 PROPOSED ABANDONMENTS

There is very little redundancy between existing CSX lines and the existing Conrail lines that CSX would operate. Similarly, there is little redundancy between existing NS lines and existing Conrail lines that NS would operate. Thus, a combined total of only 79.7 miles of track, currently operated by Conrail (29 miles) and NS (50.7 miles), is proposed to be abandoned. Proposed abandonment projects are presented in detail in Part 3, Proposed Abandonments, and are listed by railroad and by state in Tables 1-12 and 1-13 in this Part 1.

5.1 APPROACH

The following areas were analyzed for each proposed abandonment: land use, water resources and wetlands, biological resources, historic and cultural resources, safety, transportation, air quality, noise, and energy. The methodologies for evaluation of the potential impacts of each of these topics are set forth in Appendix A to Part 3.

The proposed process for removal of rail and related equipment and structures is discussed in Part 3. Following track removal and other salvage activities, the right of way would either be converted to: (1) open land, (2) development compatible with adjacent property, (3) public utility or transportation rights-of-way, or (4) recreational uses, such as the "Rails to Trails" program. It is highly unlikely that there would be negative community and social impacts due to the conversion of the abandoned right-of-way to new uses.

A combination of literature review, agency contacts, resource maps, and site visits was used to characterize existing conditions for land use, water resources and wetlands, biological resources, historic and cultural resources, safety, and transportation. The focus of the characterization was on aspects of these resources that might be sensitive to potentially adverse impacts from salvage operations, including:

- Land Use - structures within 500 feet of rail lines, occurrence within a coastal zone and presence of prime farmland.
- Water Resources and Wetlands.
- Biological Resources - vegetation types; wildlife; occurrence of threatened and endangered plant/wildlife species and/or their critical habitat; parks, forests, refuges, and sanctuaries within one mile of rail lines.
- Historic and Cultural Resources - historic or archaeological sites listed or potentially eligible for listing on the National Register of Historic Places.
- Safety - occurrence of hazardous waste sites and grade crossings.
- Transportation - vehicle traffic levels, rail service and rail routes.

Criteria were developed to assess the possible significance of abandonment impacts on the resources itemized above. The key criteria included:

- Land Use - incompatibility with surrounding land use, inconsistency with planning policies/controls and coastal zone management plans, and loss of prime farmland.
- Water Resources and Wetlands - substantial interference with drainage flow, loss of wetlands, adverse discharges to waters (sediment increases, pollutants).
- Biological Resources - loss of important vegetation types/wildlife habitats; loss of individuals or habitat for threatened and endangered plant/wildlife species or their critical habitat; loss or degradation of parks, forests, refuges, and sanctuaries.
- Historic and Cultural Resources - disturbance to listed or potentially eligible sites.
- Safety - exposure of people to hazardous waste conditions.
- Transportation - substantial increase in truck traffic on local transportation systems.

Air quality impacts are discussed in the context of the projected abandonment activity, and noise impacts are discussed in the context of the minimal short-term salvage operations and elimination of noise sources. No quantification of energy impacts was done because projected rail-to-truck diversion traffic was below STB thresholds for analysis. However, a general discussion of energy impacts is presented.

5.2 CONCLUSIONS

Potential impacts were analyzed for all the proposed abandonments in accordance with the approach described in Section 5.1 of Part 4. No significant impacts were identified in the areas of land use, water resources and wetlands, safety, transportation, air quality, noise, and energy. Approximately 700 acres would be affected by the abandonments. The abandonments were determined to be compatible with adjacent land use, to have minimal impact on prime farmland and not to be within any coastal zone management areas. Surface water and wetland impacts would be minor and minimized by the implementation of Best Management Practices. Only minimal impacts to vegetation and wildlife would occur. It is not expected that any threatened and endangered species would be impacted because salvage operations would be confined almost entirely to the existing rail right-of-way. Minor impacts to air quality and noise could occur during salvage operations but would be temporary, ending once such operations were completed. No hazardous waste sites are anticipated to be impacted. One hundred fifty-five grade crossings would be eliminated, with corollary reductions in potential for grade crossing accidents.

As a result of the proposed abandonments only four shippers (111 carloads per year) would lose rail service. All other shippers on the lines proposed for abandonment would continue to be rail served via other lines.

Some potential impacts could occur to historic and archaeological resources. Initial evaluation shows that four of the proposed abandonments might possibly impact historic resources: Paris to Danville (21 potentially historic structures); Dillon Junction to Michigan City (four potentially historic structures); South Bend to Dillon Junction (two potentially historic structures and one archaeological site); and the Toledo Pivot Bridge (one potentially historic structure -- the bridge itself). The consultation required by Section 106 of the National Historic Preservation Act has been initiated and will continue.

Further discussion of the potential impacts is presented in Part 3, Proposed Abandonments. The abandonments will also have beneficial effects which are discussed in Section 2 of this Part and in Part 3.

6.0 PROPOSED CONSTRUCTION PROJECTS

Proposed new connections and other construction projects requiring the acquisition of right-of-way are presented in detail in Part 4 Proposed Construction Projects and are listed and briefly described in the summary Tables 1-14, 1-15, and 1-16 in this Part 1. The STB requires analysis of potential environmental impacts associated with all construction projects that are under STB's jurisdiction and those "non-jurisdictional" projects that require acquisition of new property. Jurisdictional constructions consist of new connections between two rail lines.

Proposed construction projects include connections, construction of a fueling facility adjacent to an existing yard, and construction of a new intermodal facility. A number of connections are proposed to be constructed that would allow access between existing rail lines that are in close proximity in order to facilitate more efficient routing of traffic over the expanded CSX and NS systems. The other construction projects would also improve efficiency by improving routing, increasing capacity of yards and lines, avoiding congestion and reducing idle time and fuel consumption.

6.1 APPROACH

The following areas were analyzed for each of the proposed connections and the other construction projects requiring the acquisition of new right-of-way or property: land use, water resources and wetlands, biological resources, historic and cultural resources, safety, transportation, air quality and noise. The methodologies for evaluation of the potential impacts of each of these topics is set forth in Appendix A to Part 4. A discussion of construction procedures is provided in Part 4 of the ER.

A combination of literature review, agency contacts, resource maps, and site visits was used to characterize existing conditions at each of the sites. The focus of the characterization was on aspects of the analyzed resources that might be sensitive to potentially adverse impacts from construction activities, including:

- Land Use - structures within 500 feet of rail lines, occurrence within a coastal zone and presence of prime farmland.
- Water Resources and Wetlands
- Biological Resources - vegetation types; wildlife occurrence of threatened and endangered plant/wildlife species and/or their critical habitat; parks, forests, refuges, and sanctuaries within one mile of rail lines.
- Historic and Cultural Resources - historic or archaeological sites listed or potentially eligible for listing on the National Register of Historic Places.
- Safety - occurrence of hazardous waste sites and at grade crossings.
- Transportation - vehicle traffic levels, rail service, and rail routes.

Criteria were developed to assess the possible significance of construction impacts on the resources itemized above. The key criteria included:

- Land Use - incompatibility with surrounding land use, inconsistency with planning policies/control and coastal zone management plans, and loss of prime farmland.
- Water Resources and Wetlands - substantial interference with drainage flow, loss of wetlands, adverse discharges to waters (sediment increases, pollutants).
- Biological Resources - loss of important vegetation types/wildlife habitats; loss of individuals or habitat for threatened and endangered plant/wildlife species and/or their critical habitat; loss or degradation of parks, forests, refuges, and sanctuaries.
- Historic and Cultural Resources - disturbance to listed or potentially eligible sites.
- Safety - exposure of people to hazardous waste conditions.
- Transportation - substantial increase in truck traffic on local transportation systems.

Safety concerns during construction activities would be addressed by compliance with applicable regulatory requirements. Construction-related transportation impacts were assessed not to be significant, based on the short duration of activities and limited vehicle traffic (worker vehicle and material delivery trucks). Air quality impacts during construction would be temporary and would generally involve dust from earth-moving activities and emissions from construction equipment and vehicles.

Construction-related noise impacts would be temporary. The potential noise impact from wheel squeal from operations over the connections was analyzed because wheel squeal is more likely to occur on connections than other segments of rail line; wheel squeal is likely to occur on any curve with a radius less than about 1,000 feet or when the curvature is greater than approximately five degrees.

It was determined that wheel squeal would not be a significant source of noise at most of the connection locations, either because there would be no wheel squeal, there would be few sensitive receptors or the noise level would be low compared to other sources of noise. Apart from wheel squeal, the operational impacts of construction projects for these resource areas were evaluated as part of the analysis for rail line segments, rail yards and intermodal facilities.

6.2 CONCLUSIONS

The proposed construction projects would result in a variety of economic benefits, including, increased efficiency, improved transit times, reduced transportation costs, shorter rail routes, more productive use of terminals, fewer terminal and other delays, and heightened reliability of service. These enhanced efficiencies would facilitate in the diversion of traffic from highways to rail. These diversions would result in reduced emissions, fuel usage and congestion, and enhanced highway safety.

Potential impacts were analyzed for all the proposed construction projects in accordance with the approach described in Section 6.1. No significant impacts were identified in the areas of land use, water resources and wetlands, biological resources, historic and archaeological resources, safety, transportation, air quality, noise, and energy. Generally, land affected by constructions would be compatible with adjacent land use, would have minimal impact on prime farmland and would not be within a coastal zone management area. Surface water and wetland impacts would be minor and minimized by the implementation of Best Management Practices. Only minimal impacts to vegetation and wildlife would occur. Minor impacts to air quality and noise could occur during construction operations but would be eliminated once such operations were completed. Control measures, such as water spraying, would be utilized to minimize the generation of fugitive dust. All needed environmental permits to construct these projects would be secured, and the construction work would be carried out in accordance with applicable federal and state regulations.

Potential minimal impacts could occur at some of the construction project locations to land use, biological resources, historic and archaeological resources, safety, transportation, and noise. These are briefly described below.

- Exermont, IL - Approximately 5.3 acres of land would be converted to railroad right-of-way as a result of the proposed project, including three acres of prime farmland. In addition, the proposed connection is located in an area that has a potential for the presence of significant archaeological resources.

- Lincoln Avenue, IL - The proposed connection is entirely on rail right-of-way. It may require the relocation of a cantilever signal and highway/pedestrian gates west of Park Avenue.

- Kankakee, IL - Approximately 2.3 acres of land would be converted to railroad right-of-way as a result of the proposed project, including some prime farmland in agricultural production.

- Sidney, IL - Approximately 5.3 acres of land would be converted to railroad right-of-way as a result of the proposed project.

- Tolono, IL - The proposed connecting track has the potential to impact a listed National Register of Historic Places (NRHP) eligible site, the former depot where President Abraham Lincoln gave his final speech in Illinois. (Section 106 consultation with the Illinois SHPO has been initiated and will continue.) The proposed rail line connection would require an expanded grade crossing at Benham Street.

- Willow Creek, IN - Approximately 0.2 acres of land would be converted to railroad right-of-way as a result of the proposed project. An area approximately 400 feet by 70 feet would need to be cleared of trees and non-woody vegetation as a result of the proposed project. The proposed project would require the relocation of an existing grade crossing at Willow Creek Road to accommodate the widening of the track corridor.

- Alexandria, IN - Approximately 2.3 acres of land would be converted to railroad right-of-way as a result of the proposed project (including portions of an existing scrap yard which would be assessed for possible site contamination).

- Butler, IN - Approximately 3.9 acres of land would be converted to railroad right-of-way as a result of the proposed project.

- Little Ferry, NJ - The proposed construction project is located on rail right-of-way within a Coastal Zone Management area.

- Blasdell, NY - Approximately 11.9 acres of land would be converted to railroad right-of-way as a result of the proposed project.

- Cleveland, OH - Approximately 23 acres of land adjacent to the existing Collinwood rail yard would be converted to use as an intermodal facility as a result of the proposed project. A building (the age of which has not been determined) located on the property to be acquired may need to be removed. Further consultations with the Ohio SHPO will be made.

- Greenwich, OH - Approximately 0.5 acres of land, including 0.4 acres of prime farmland, would be converted to railroad right-of-way as a result of the proposed project. Grade crossing protection at Kniffen and Townsend Roads would be relocated.

- Sidney, OH - Approximately 2.6 acres of land would be converted to railroad right-of-way as a result of the proposed project.

- Willard, OH - Approximately 10 acres of land adjacent to an existing rail yard would be converted to railroad use as a fueling facility as a result of the proposed project.

- Bucyrus, OH - Approximately 5.5 acres of land would be converted to railroad right-of-way as a result of the proposed project. Because the connection would be located in a residential area, some residences might be impacted by wheel squeal noise. The former T&OC freight house, which is potentially historic, would be demolished to make way for the new connection. The proposed connection would require two new grade crossings.

- Oak Harbor, OH -Approximately 11.5 acres of land would be converted to railroad right-of-way as a result of the proposed project, including some prime farmland in agricultural production. The proposed project would require one new grade crossing.

- Vermilion, OH - Approximately 12.4 acres of land would be converted to railroad right-of-way as a result of the proposed project. While endangered species such as the Indiana Bat and Bald Eagle are known to be present in Erie County, the Ohio DNR advised that it was unaware of any species or critical habitats in the proposed project area. The proposed project would require one new grade crossing.

Further discussion of the potential impacts is presented in Part 4, Proposed Construction Projects. The construction projects will also have beneficial effects which are discussed in Section 2 of this Part and in Part 4.

7.0 SYSTEMWIDE ANALYSES

The changes in rail operations brought about by the Acquisition would have systemwide effects on transportation, safety, energy consumption, and air quality. These systemwide effects are discussed in this section, and are based on data developed by CSX and NS for their operating plans.

7.1 TRANSPORTATION

The proposed Acquisition is expected to impact the national transportation system in two significant respects. First, the proposed Acquisition would result in changes to the operation of the rail systems of CSX and NS by increasing traffic on some rail line segments and decreasing traffic on other line segments.

Second, the proposed Acquisition is expected to result in significant reductions in truck traffic on major state and interstate highway systems. Over one million truck-to-rail diversions are predicted by CSX and NS. Specifically, CSX's traffic studies have predicted truck-to-rail diversions totaling 437,978 diverted truckloads and NS has predicted approximately 589,000 diverted truckloads. The traffic studies conducted by both carriers were focused largely on new single line services that each carrier would be able to offer following the Acquisition and more efficient services that CSX and NS would be able to provide on their respective systems. To the extent that CSX and NS would be in a position to offer service competitive with one another on a particular lane following the Acquisition, the studies took such competition into account and apportioned the predicted diversions between carriers on the basis of business judgments made about the competitive strength of each carrier on the particular lane at issue.

In addition, STB regulations require a description of the effects of the proposed action on regional and local transportation systems and patterns, and an estimate of the amount of passenger or freight traffic that would be diverted to other transportation systems or modes as a result of the proposed Acquisition.

7.1.1 Expanded CSX System

The changes in activity on the existing CSX line segments, the Conrail line segments proposed to allocated to CSX and the Shared Assets Areas line segments are set forth in Appendix G, which is reprinted from CSX's Operating Plan submitted with the Application.

CSX conducted several Acquisition-related traffic diversion studies which show that the Acquisition would have significant transportation-related benefits. These included a study of intermodal truck-to-rail diversions, an analysis of expected intermodal extended hauls and a study of expected diversions of general merchandise from truck to rail. The results of these are summarized below.

7.1.1.1 Intermodal Truck-to-Rail Diversions

A significant number of intermodal truck-to-rail diversions are expected to occur as a result of the proposed Acquisition, based on a study conducted for CSX. The following table summarizes the estimated number of diversions in each major highway corridor of the expanded CSX system, and the associated number of truck miles removed from the national highway system.

Table 1-33

CSX Intermodal Truck-to-Rail Diversions Summary

Highway Corridor	Intermodal Truck-to-Rail Diversions (loads/year)	Total Truck Miles Avoided (1000s)
Interstate 95	26,033	30,842
Interstate 85	39,980	30,474
Interstate 75/59	20,122	19,176
Memphis	114,280	116,863
Interstate 70/80/90	121,185	152,109
Corridors Total	321,600	349,464

A discussion of the methodology used to conduct the intermodal truck-to-rail diversion study is presented in the verified statement of Mr. Joseph Bryan of Reebie Associates submitted as part of the Application.

In addition to the intermodal truck-to-rail diversion study discussed above, an additional analysis of expected intermodal extended hauls was conducted by CSX. This study estimated the number of truck miles that would be saved by extending intermodal rail service to markets which are currently served by truck dray from existing CSX intermodal terminals. The study projects a total of 42,655 diverted loads resulting in a reduction of approximately 7.39 million highway miles. A discussion of the methodology used to conduct the intermodal extended haul study is presented in the verified statement of Mr. John Q. Anderson submitted as part of the Application.

7.1.1.2 General Merchandise Truck-to-Rail Diversions

CSX conducted a study of potential Acquisition-related truck-to-carload traffic gains for general merchandise traffic. This study estimated the number of trucks expected to be diverted to CSX carload rail service as the result of new market opportunities and extended hauls. A total of 73,723 trucks are projected to be diverted, resulting in a reduction of approximately 45.98 million highway miles travelled. A discussion of the methodology used to conduct the truck-to-carload study is presented in the verified statement of Mr. Christopher P. Jenkins submitted as part of the Application.

7.1.1.3 Diversions to Other Transportation Systems

CSX does not anticipate the diversion of any rail traffic to other transportation systems. As explained in Section 8.0, the Acquisition is not expected to have any effect on passenger service.

7.1.2 Expanded NS System

The changes in activity on the existing NS line segments, the Conrail line segments proposed to be allocated to NS and the Shared Assets Areas line segments are set forth in Appendix H, which is reprinted from NS's Operating Plan submitted with the Application.

NS conducted several Acquisition-related traffic diversion studies which show that the Acquisition will have significant transportation-related benefits. These included a study of intermodal truck-to-rail diversions, and a study of expected diversions of general merchandise traffic from truck to rail. The results of these studies are summarized below.

7.1.2.1 Intermodal Truck-to-Rail Diversions

A significant number of intermodal truck-to-rail diversions are expected to occur as a result of the proposed Acquisition, based on a study conducted for NS. The following table, which summarizes an internal NS analysis of this study, shows the estimated number of diversions in each major highway corridor of the expanded NS system, and the associated number of truck miles removed from the national highway system.

Table 1-34
NS Intermodal Truck-to-Rail Diversions Summary

Highway Corridor	Intermodal Truck-to-Rail Diversions (loads/year)	Total Truck Miles Avoided (1000s)
Interstate 65/75	9,096	6,636
Interstate 95	17,119	18,517
Interstate 76/80/90	126,002	82,719
Interstate 78/70/71	143,613	108,352
Interstate 81/77	179,946	151,938
Corridors Total	475,776	368,162

A discussion of the methodology used to conduct the intermodal truck-to-rail diversion study is presented in the verified statement of Mr. Patrick J. Krick submitted as part of the Application.

7.1.2.2 General Merchandise Truck-to-Rail Diversions

NS conducted a study of potential Acquisition-related truck-to-carload traffic gains for general merchandise traffic. This study estimated the number of trucks expected to be diverted to NS carload rail service as the result of new market opportunities and extended hauls. A total of 113,224 trucks are projected to be diverted, resulting in a reduction of approximately 11.04 million highway miles travelled.

A discussion of the methodology used to conduct the truck-to-carload study is presented in the verified statement of Mr. John Williams submitted as part of the Application.

7.1.2.3 Diversions to Other Transportation Systems

The proposed Acquisition would result in the potential diversion of 111 rail cars to trucks due to two proposed NS rail line abandonments. All other customers on the other line segments to be abandoned will continue to be rail served. As explained in Section 8.0, the Acquisition is not expected to have any effect on passenger service.

7.2 SAFETY

Both CSX and NS are fully dedicated to safety in all their operations and actions. This has resulted in excellent performance in the areas of worker safety, hazardous materials transportation, and grade crossing safety. Both CSX and NS are industry leaders in safety performance and would bring this commitment and focus to their respective expanded operations.

<u>CSX Discussion</u>

CSX's extraordinary performance in safety and customer service has been recognized with numerous awards including the following:

- National TRANSCAER Achievement Award (1996)
- Chrysler Gold Pentastar Quality Award (1993-1996)

- E. H. Harriman Memorial Award, Bronze (1996), Silver (1994, 1995)
- E. I. DuPont Carrier of the Year Award (1993-1996)
- BP 1994 Carrier of Excellence Award
- Reagent Chemical Award of Excellence (1994)
- Allied Signal Quality Transportation Award (1994)
- Air Products Vendor Challenge Carrier of the Year (1996)

<u>NS Discussion</u>

NS's vision is to be "the safest, most customer-focused and successful transportation company in the world". Safety is foremost in importance in NS's culture and is accomplished by vigilant inspection and maintenance of track, equipment and railroad property; compliance with applicable safety and environmental laws and regulations and company rules; ongoing training and education of company employees; and initiation of of numerous safety programs to improve employee, transportation, and grade crossing safety.

NS's commitment to safety is reflected in performance. NS has received numerous safety and service awards, including the following:

- Eight consecutive E. H. Harriman Memorial Gold Awards for Outstanding Safety Performance in the Railroad Industry (1989-1996)
- National Safety Council's Golden Spike Award for public safety activities by railroads (28 awards)
- Air Products Carrier of the Year Award (1995)
- Amoco's Quality Supplier Award (1993)
- Amoco Chemical Excellence Award (1994)
- Cargill Quality Carrier of the Year Award
- Dow Chemical Safety Award (14 awards)
- DuPont Quality Award (1992-1994, 1996)

- Occidental Chemical Corporation Rail Carrier of the Year Award (1995)
- Olin Chemical Rail Carrier of the Year Award (5 awards)
- Reynolds Metals Award (1990)
- Union Carbide Rail Carrier Award (1994)
- National TRANSCAER Achievement Award for special program efforts (1995)
- Certificate of Commendation from Georgia Emergency Management Agency (1996)

The overall impacts of the Acquisition to public safety are discussed below.

7.2.1 Grade Crossing Safety

Both CSX and NS have active grade crossing safety programs as more fully described in Section 1.2.4 of Part 2 of this ER.

Both CSX and NS are active participants in Operation Lifesaver programs which educate the public on the importance of grade crossing safety and traffic control requirements. CSX and NS also are active in the Officer-on-Train program where police agency personnel ride trains in an effort to improve enforcement of the traffic control laws at crossings. Grade separations and warning system upgrades are the responsibility of state and local highway departments; both CSX and NS cooperate with highway departments to support and pursue grade separation programs, the elimination of grade crossings whenever possible and the improvement of crossing warning systems.

Traffic changes from the Acquisition would result from changes in mode and routing of existing traffic. Rail-to-rail diversions and rerouting of rail traffic would result in increases in the potential for accidents and delays at grade crossings where traffic increases and offsetting reductions in the potential for accidents and delays at grade crossings where traffic decreases. The proposed abandonments would eliminate 155 grade crossings with resulting reductions in potential for accidents.

Both CSX and NS support grade separations and eliminations whenever possible. CSX would have a total of 626 grade separation projects, to eliminate the need for crossings, including currently active CSX projects and Conrail projects on lines to be assigned to CSX, but not including the project count for Shared Assets Areas. NS would have a total of 715 active grade separation projects, to eliminate the need for crossings, including currently active NS projects and Conrail projects on lines to be assigned to NS, but not including the project count for Shared Assets Areas.

7.2.2 Hazardous Materials Transportation

Hazardous materials currently comprise 7.4 percent of shipments on CSX and 5.6 percent of shipments on NS. CSX and NS both have excellent hazardous materials transportation performance. In 1996, over 99.9 percent of each of their hazardous materials shipments arrived at destination without incident, and most of the incidents that occurred involved low quantity releases caused by improper shipper securement of tank car valves. (Note tank cars are normally not owned or maintained by railroads.) In the event of a release, both CSX and NS have comprehensive emergency response plans.

CSX and NS have transportation accident rates of approximately 1.9 train accidents per million-train-miles, far superior to the industry average of 3.7. Applying their accident rate to expected increases in traffic would lead to a projected increase of 18.6 train accidents per year. However, Conrail's 1995 train accident rate was 3.31 accidents per million train miles. After the Acquisition, CSX and NS would each apply their focus and commitment and accompanying operating and maintenance practices to the expanded systems. Applying either CSX's or NS's rate to traffic on the current Conrail system would suggest a potential reduction of 71 rail accidents per year.

The proposed Acquisition would have no effect on the number or nature of any known hazardous waste sites adjacent to the CSX or NS rights-of-way. If an unknown site is encountered, both CSX and NS have policies and processes in place to comply with all environmental requirements, including those related to contaminated sites, and notification of same to regulatory authorities.

7.2.3 Traffic Safety

Overall, by far the largest impact on traffic and transportation safety would be the expected improvements associated with reduced truck traffic from truck-to-rail diversions. Truck traffic is expected to decrease by over 1 million long-haul trips and 782 million truck-miles. Therefore, traffic congestion would be reduced. Truck crashes are projected to decrease by 1,690, including a reduction of 436 injury crashes and a reduction of 21 fatal crashes involving one or more fatalities.

7.3 ENERGY

As a result of the Acquisition, there will be an overall change in fuel consumption from the effects of truck-to-rail diversions, rail-to-truck diversions, rail-to-rail diversions, rerouting, and the net change in activities at yards and intermodal facilities. As discussed in Section 1.2.1, traffic changes other than truck-to-rail are expected to result in a slight reduction in diesel fuel consumption. The reduction would result because other changes involve rerouting and diverting existing rail traffic to shorter, more efficient routes. Activities in rail yards and at intermodal activities would result in minor changes in fuel consumption. Rail-to-truck diversions and their impact on fuel consumption would be negligible. The effects on fuel consumption from rail-to-rail diversions, rerouting, and changes in activity at rail yards and intermodal facilities would be negligible compared to the truck-to-rail effect and have therefore not been analyzed in detail at a systemwide level.

The primary change in fuel consumption for the Acquisition would result from truck-to-rail diversions. The increased rail fuel consumption and decreased truck fuel consumption from truck-to-rail diversions are presented in Table 1-35. See Appendix E to Part 1 of this ER for a discussion of the Energy Methodology.

Table 1-35
Truck-To-Rail Fuel Consumption Changes

	Diesel Fuel (gallons)
CSX Truck-To-Rail Diversions	
Fuel from Increased Rail Ton-Miles	28,743,000
Fuel from Decreased Truck Ton-Miles	(84,854,000)
CSX Net Truck-To-Rail Fuel Change	(56,111,000)
NS Truck-To-Rail Diversions	
Fuel from Increased Rail Ton-Miles	22,078,000
Fuel from Decreased Truck Ton-Miles	(86,674,000)
NS Net Truck-To-Rail Fuel Change	(64,596,000)
Net Truck-To-Rail Fuel Change Impact	(120,707,000)

Overall, the Acquisition would result in reduced fuel consumption of approximately 120.7 million gallons from truck-to-rail diversions.

As explained in Part 3 of this ER, none of the limited rail-to-truck diversions that might result from the proposed CSX and NS abandonments would meet the STB thresholds for analysis. Any changes in energy efficiency arising from diversion from rail to truck from short-haul movement are expected to be insignificant.

The increased overall efficiency of operation that would result from the Acquisition would benefit the transportation by rail of energy resources and recyclable commodities due to the shorter, more direct transportation routes. The increased efficiency and competition resulting from the Acquisition is expected to result in economic benefits to shippers and users of energy-producing materials and recyclable commodities. CSX and NS do not anticipate any significant diversion of energy producing resources, recyclable commodities, ozone depleting materials, or changes in the manner in which such commodities are transported. Accordingly, no further analysis of the transportation of these commodities is provided.

7.4 AIR QUALITY

Systemwide changes in air pollutant emissions were calculated based on predicted changes in fuel consumption resulting from the Acquisition. These data were derived from expected truck-to-rail traffic diversions, which was deemed to be the most significant contributor to fuel consumption changes as a result of the Acquisition. As shown in Table 1-36, even without considering reductions in emissions occurring as a result of more efficient rail routing made possible by the Acquisition, the data show that overall emissions of NO_x, CO, VOC, PM and Pb will be reduced.

Table 1-36
Truck-To-Rail Air Emission Changes

	Estimated Increase in Emissions (tons per year)					
	NOx	**CO**	**VOC**	**SO_2**	**PM**	**Pb**
CSX Truck-To-Rail Diversions						
Emissions from Increased Rail Ton-Miles	8140	904	302	527	206	.017
Emissions from Decreased Truck Ton-Miles	8732	3829	759	284	1016	.044
CSX Net Truck-To-Rail Emissions Impact	(592)	(2925)	(457)	243	(810)	(.027)
NS Truck-To-Rail Diversions						
Emissions from Increased Rail Ton-Miles	6253	694	232	405	158	.0132
Emissions from Decreased Truck Ton-Miles	(7823)	(3430)	(680)	(1372)	(4901)	(.245)
NS Net Truck-To-Rail Emissions Impact	(1570)	(2736)	(448)	(967)	(4743)	(.232)
Net Truck-To-Rail Emissions Impact	(2162)	(5661)	(905)	394	(1562)	(.054)

8.0 IMPACTS ON PASSENGER SERVICE

CSX, NS and Conrail are freight service railroads, not passenger service railroads. Their principal function is to meet the needs of their freight rail customers. Nevertheless, on an average weekday, over 80 intercity trains operated by the National Railroad Passenger Corporation (Amtrak) and over 300 commuter trains operated by various commuter agencies operate over CSX, NS and Conrail-owned lines. Conversely, CSX, NS and Conrail also operate over lines owned by Amtrak and various commuter agencies.

Passenger services have long coexisted with freight services. The Acquisition would not disturb that relationship. The relationship between the relevant passenger agencies and CSX, NS and Conrail is governed by law and contractual arrangements. These governing provisions would continue in force after the Acquisition. CSX and NS would assume the rights and responsibilities of Conrail with respect to those Conrail lines allocated to each of them in the Acquisition. The expanded CSX and NS systems would each accommodate the existing passenger services on lines they own or over which they operate, including on the lines in the Shared Assets Areas. Similarly, it is expected that the passenger agencies would continue to accommodate the existing freight services over lines they own, as provided in their contracts.

CSX, NS and Conrail guide their operations by the basic principle that freight operations should be operated in the safest and most efficient manner, without impairing the safety or efficiency of existing intercity passenger or commuter service on the lines CSX, NS and Conrail own or over which they operate. All passenger trains on lines they control will be dispatched in accordance with all safety and operating rules and procedures and regulations of the Federal Railroad Administration.

Moreover, the expanded CSX and NS systems would be able to accommodate their legal obligations for their limited expansion of Amtrak and commuter service under statutory and contractual arrangements.

Most rail lines over which both freight and passenger service operate would not experience changes in freight activity as a result of the Acquisition. Although CSX and NS anticipate that freight traffic would increase on some lines that are used for passenger service, these lines have sufficient capacity, either at present or with planned capital improvements, to accommodate the increases in freight traffic.

8.1 AMTRAK OPERATIONS

8.1.1 Amtrak Operations over Lines Owned by CSX, NS or Conrail

Amtrak operates over 80 inter-city trains daily over CSX, NS and Conrail lines. Amtrak train names, numbers and routes are listed in Table 1-37. Table 1-37 also identifies the line segments of CSX, NS and Conrail traversed by each Amtrak train. Figure 1-6 shows the Amtrak routes over the lines of CSX, NS and Conrail, and Amtrak-owned lines over which CSX and NS would operate.

The Acquisition would not have a significant impact on Amtrak train operations as they currently exist on CSX and NS lines and on the Conrail lines that would be allocated to CSX and NS. Amtrak trains presently receive operating priority over freight trains from CSX, NS and Conrail, and CSX, NS and Conrail will continue to afford Amtrak trains priority.[1]

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[1] Amtrak was organized pursuant to the Rail Passenger Service Act of 1970. Under the terms of that Act, and of their operating agreements with Amtrak, CSX, NS and Conrail must afford Amtrak trains operating priority. CSX has just renewed its operating agreement with Amtrak for a term of five years, expiring March 31, 2002. NS has just renewed its operating agreement with Amtrak for a term of three years, expiring in May 2000. Conrail has a longer-term agreement with Amtrak providing for one-year notice to terminate no sooner than April 14, 2006.

Table 1-38 shows the expected freight traffic changes on the CSX, NS and Conrail line segments with Amtrak service, sorted by expected changes in freight activity. As shown in Table 1-25, most of the line segments over which Amtrak operates would experience little or no increase in freight traffic (fewer than three additional freight trains per day), with some line segments experiencing decreases in freight traffic.

Table 1-39 shows the expected freight traffic changes on the CSX, NS and Conrail line segments with Amtrak service, organized according to the route of each Amtrak train.

A smaller number of line segments over which Amtrak operates would experience moderate increases in freight traffic (three to eight additional freight trains per day). These lines, however, all have sufficient capacity to accommodate the increase in freight traffic without any impact on Amtrak service.

Even fewer line segments over which Amtrak operates would experience increases in freight traffic greater than eight freight trains per day. Existing line capacity and planned capacity improvements will ensure that Amtrak operations over these line segments would not be adversely affected by the Acquisition.

The following Amtrak routes would experience at most a moderate (three to eight freight trains per day) increase in freight traffic on some line segments:

Schenectady to Buffalo. The route of Amtrak trains running north out of New York City and then west from Schenectady over the New York Central route toward Buffalo (an average of about eight trains daily) would experience a moderate increase in freight traffic between Hoffmans, NY (west of Schenectady) and Frontier, NY (near Buffalo), about 264 track miles. However, the line from Albany to Buffalo is double track with Centralized Traffic Control

(CTC) bi-directional signalling. This track will be restored for 79 mph passenger service where possible. The moderate increase in freight traffic would not adversely affect Amtrak service on this line.

Cardinal Route. The route of the Amtrak Cardinal (service from Washington to Chicago three times a week) would experience a three train per day increase between Cincinnati and Hamilton, Ohio, a 21-mile CSX line segment. This is the only passenger train on this segment. This line is double tracked with CTC bi-directional signalling. This slight increase in freight traffic would have no effect on the Cardinal.

Crescent Route. The Crescent operates on NS track between New Orleans, LA and Alexandria, VA via Birmingham, AL and Atlanta, GA (1,144 miles). The New Orleans, LA to Meridian, MI segment (194 miles) of this route would experience an approximately four train per day increase. This line is single track, automatic block with 79 mph passenger speed. There would be no impact on the Crescent.

The Crescent completes its journey to Washington, DC over a short (eight-mile) segment (through CSX's Potomac Yard in Alexandria, VA to Virginia Ave., DC) which would experience an increase of about 11 freight trains per day. As explained below in connection with the Washington, DC to Richmond, VA Amtrak trains, this track has sufficient capacity to handle the increased freight traffic without affecting the Crescent.

Pennsylvanian Route. The Pennsylvanian operates over the Conrail mainline between Harrisburg and Pittsburgh. This line segment would be operated by NS. NS predicts an approximately seven train per day increase in freight traffic between Harrisburg and the west end of the Rockville bridge at Marysville, PA (6 miles), but no change in freight traffic between Marysville and Pittsburgh. The line is double track, and has sections in the mountains with additional track. Signalling is generally CTC bi-directional. Given the available capacity of the line, this moderate increase in freight traffic would have no effect on the Pennsylvanian.

Southwest Chief Route. The route of the Southwest Chief northeast of Kansas City would experience an eight train per day increase between Carrollton and Camden, MO (30 miles). This is the only passenger train that operates on this segment. This segment is double and triple tracked with CTC bi-directional signalling.[2] The moderate increase in freight traffic would have no effect on the Southwest Chief.

The following Amtrak routes would experience a substantial increase in freight traffic (more than eight trains per day) on some line segments:

Capitol Limited Route. The route of the Capitol Limited would experience an approximately eight to nine freight train per day increase on the CSX line between Point of Rocks, MD and Harpers Ferry, WV (13 miles); and between Sinns, PA and Rankin Junction, PA (9 miles). In addition, NS expects approximately an eight train per day increase between Oak Harbor, OH and Toledo, OH (24 miles) and approximately a 14 train per day increase on the 11-mile segment between White, OH and Cleveland, OH. The Capitol Limited route would also experience modest increases in freight traffic (three to eight freight trains per day) over three other CSX line segments: Washington, D.C. to Point of Rocks, MD (43 miles); Harpers Ferry, WV to Cherry Run, WV (32 miles); and Cumberland, MD to Sinns, PA (133 miles).
All of these line segments are double track, and most have CTC bi-directional signalling. These segments have sufficient capacity for these increases in freight traffic without adverse affect on the Capitol Limited.

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[2] NS owns one track and Burlington Northern/Santa Fe (BNSF) owns the others. NS and BNSF have an agreement to operate over each other's tracks. BNSF dispatches the segment.

It should be noted that substantial decreases in freight traffic are expected on other segments crossed by the Capitol Limited, including an approximately 12 train per day decrease on the Conrail lines from Rochester, PA to Alliance, OH (57 miles), and from Vermilion, OH to Oak Harbor, OH (43 miles).

Lake Shore Limited Route. The Lake Shore Limited also traverses the Schenectady, NY to Buffalo, NY and the Vermilion, OH to Toledo, OH segments discussed above. The route of the Lake Shore Limited between Buffalo, NY and Cleveland, OH will experience changes in freight traffic ranging from moderate increases to substantial decreases. The entire route of the Lake Shore Limited is double track with CTC bi-directional signalling and has sufficient capacity to ensure the changes in freight service will have no impact on this service.

Three Rivers Route. The route of the Amtrak Three Rivers train would experience increases of approximately 16 to 26 freight trains per day over most of the line between Greenwich, OH and Pine Junction, IN (near Chicago) (260 miles), one of the greatest increases in freight traffic proposed for the CSX system. In order to support this increased freight traffic, CSX is doubletracking the single track portions of this line and installing CTC bi-directional signalling along the entire length of track. With these improvements, the line will have sufficient capacity to accommodate both the increased freight traffic and the Three Rivers, the only passenger train traveling over this segment each day, without delays. The Three Rivers would be able to travel at 79 mph. The Three Rivers also traverse two additional line segments --the Harrisburg, PA to Marysville, OH segment described above and the New Castle, PA to Youngstown, OH segment (18 miles) -- which would experience a modest increase in freight traffic (three to eight freight trains per day). Similarly, no impacts on the Three Rivers are expected on these line segments.

Washington, DC to Richmond, VA. The first two miles miles of this line (Virginia Ave., DC to CSX's Potomac Yard in Alexandria, VA) is owned by Conrail and the next six miles (through

CSX's Potomac Yard) are owned by CSX. This line segment, which carries all of the Amtrak trains moving south out of Washington, DC, would experience an increase of about 11 freight trains per day. From Alexandria, VA south to Richmond, VA, the increase is expected to be about seven freight trains per day. South of Richmond, VA, the expected increases are fewer than seven.

The CSX (RF&P) line from Alexandria, VA south is double track (except for a single track bridge near Quantico, VA) with CTC bi-directional signalling . In addition, 3.6 miles of triple track recently have been installed through Alexandria, VA on the segment that would experience the greatest increase in freight activity. Additional capital projects that would increase capacity on this line are either under construction or in the final planning stages. With the current available capacity of the track and the additional improvements, quality Amtrak and freight service can be maintained on this line.

In conclusion, CSX, NS and Conrail will honor their obligations to accommodate existing Amtrak service. They will also honor their obligations with respect to any proposal by Amtrak to expand its passenger service. Pursuant to its operating agreements with CSX, NS and Conrail, Amtrak has the right to operate additional passenger trains over CSX, NS and Conrail lines, subject to the physical limitations of the involved rail lines and the need to avoid unreasonable interference with other railroad operations.

8.1.2 Freight Operations over Lines Owned by Amtrak

Neither CSX nor NS presently operates over lines owned by Amtrak. Conrail operates over portions of Amtrak's Northeast Corridor (NEC) between New York and Washington, DC Conrail also operates limited, local freight service over a few other line segments owned by Amtrak.

The NEC is high capacity multiple track (two to six main tracks) between New York and Washington, DC, and is generally controlled by CTC bi-directional signalling. Amtrak operations over this line segment are electrified.

Present Conrail operations over the NEC are predominantly local in character except for the segment between Wilmington, DE and Baltimore, MD. Conrail operates about 14 trains per night between Perryville, MD and Baltimore, and about 5 trains per night between Perryville and Wilmington/Newark, DE. In addition, Conrail handles some unit coal trains over the NEC to and from Bowie, MD where Conrail lines connect to the NEC.

After the Acquisition, freight traffic is expected to increase on the Perryville-Baltimore segment by only about one train per day, and moderate increases (three to eight trains per day) are expected on the other segments of the NEC between New York and Washington.[3] CSX and NS are proposing to operate through trains at night over the NEC between Washington and Newark, NJ.

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[3] CSX and NS are currently engaged in discussions with Amtrak regarding terms and conditions for CSX and NS usage of the NEC. The operating plans of CSX and NS assume that they will be able to reach mutually agreeable terms with Amtrak.

Because Amtrak dispatches the NEC, it can control the movement of freight trains on the NEC so as to prevent any interference with passenger operations. Currently Conrail operates freight trains on the NEC at night. Both CSX and NS expect to operate freight trains on the NEC at night. Thus, these modest increases in freight traffic on the NEC will have no impact on Amtrak's operations. CSX and NS are also fully prepared to negotiate with Amtrak any changes in their operations and capital measurements that may be needed from time to time.

No changes in freight operations are expected over any other lines owned by Amtrak.

8.2 COMMUTER OPERATIONS

Neither CSX, NS nor Conrail sponsors commuter train service over any of their lines. Commuter service is typically provided by regional or local governmental agencies. In six metropolitan areas (Boston, Northern New Jersey/New York City, Philadelphia, Baltimore, Washington, DC and Chicago) commuter agencies operate over CSX, NS or Conrail lines as described below. In Boston, Northern New Jersey/New York City, Philadelphia, Miami and Chicago, CSX, NS and Conrail operate over lines owned by various commuter agencies.

The Acquisition would not have a significant impact on these commuter operations. As explained below, freight traffic is expected to remain at present levels or decrease on the lines used for commuter operations in the Boston, Chicago, Philadelphia, and Miami areas. Moderate increases in freight traffic are expected on lines used by commuter agencies in the Baltimore and Washington, DC areas, but these lines have sufficient capacity to accommodate the freight increases without adverse impact on commuter service. Modest increases to significant decreases in freight traffic are expected in the Northern New Jersey/New York City area; these changes would have no impact on commuter service.

Moreover, existing commuter operations over CSX, NS and Conrail lines, and CSX, NS and Conrail freight service over lines owned by local commuter agencies, are governed by specific contracts between the carriers and the applicable agencies. Those contracts generally contain provisions that protect commuter service from freight operation interference. CSX and NS will continue to honor all commitments under those contracts.

The following sections describe commuter operations in the metropolitan areas where CSX, NS and Conrail freight trains share rail lines with commuter trains.

8.2.1 Boston Area

Conrail's Boston Line, which extends from the Albany area to Boston, is used by the Massachusetts Bay Transportation Authority (MBTA) for commuter service east of Worcester, MA. Conrail maintains and dispatches the entire line, even though a 12-mile segment of the line east of Framingham (between Riverside and Framingham) is owned by the MBTA. Conrail has a freight easement over this portion of the line.

Between Boston and Framingham, MBTA operates 38 trains per weekday and fewer on weekends. Between Framingham and Worcester, MBTA operates 10 commuter trains per weekday and fewer on weekends.

Freight traffic is not expected to change on the Boston Line. The Acquisition would thus have no effect on commuter service on this line.

Certain other Boston area routes over which Conrail provides local freight service are heavily used for commuter traffic, but CSX does not expect commuter operations on those lines to be affected by freight operations. Because these lines are used for local service rather than for through trains, the expanded CSX will have flexibility in meeting freight service commitments without interfering with commuter operations.

Conrail has a 30-year agreement with MBTA, expiring on December 31, 2015. That agreement affords priority to passenger trains and permits an increase in passenger service, as long as it does not interfere with current or future freight service. Conrail also has a 5-year agreement, expiring September 19, 1999, relating to MBTA's extended operations on the Worcester-Framingham segment.

Boston area rail lines with both commuter and freight operations are depicted in the schematic illustration in Figure 1-7.

8.2.2 Northern New Jersey/New York City Area

New Jersey Transit Corporation (NJT) and Metro North Commuter Railroad (Metro North) operate substantial commuter services in the Northern New Jersey/New York City metropolitan area.

There are presently commuter operations over portions of two Conrail lines: (1) a six-mile segment of the Conrail Lehigh Line west of Newark, NJ; and (2) a 50-mile segment of the Conrail Southern Tier Line between Suffern, NY and Port Jervis, NY.

Conrail Lehigh Line. Conrail's Lehigh Line service and NJT's Raritan Valley Line service both operate over a six-mile line segment between Newark, NJ and Aldene, NJ. NJT operates its Raritan Valley Line between Newark, NJ and Boyd, NJ (about 27 miles west of Newark), with some additional service between Boyd and High Bridge, NJ, on trackage owned by Amtrak, Conrail and NJT. The Conrail line is a major route for freight between the metropolitan area and the west and south. Conrail owns and dispatches the six-mile segment of this line between "NK"

Interlocking (near Newark, NJ) and CP-Aldene, NJ. This segment would be in a Shared Assets Area. NJT operates 56 commuter trains each weekday and fewer on weekends over the Conrail-owned line segment.

Freight traffic is expected to decrease substantially (about 10 trains per day) on this segment due to rerouting of freight among several other lines in the Northern New Jersey/New York area. The Acquisition would thus have no adverse impact on commuter service on this line.

Conrail's Southern Tier Line. The Southern Tier Line extends between Hoboken, NJ and Buffalo, NY. NJT owns the line between Hoboken and Suffern, NY and operates nearly 100 commuter trains on weekdays over portions of this trackage. Conrail owns the remainder of the Southern Tier Line west of Suffern, NY. NJT dispatches the line between Hoboken and Port Jervis, NY. Metro North (under contract with NJT) operates over the line owned by Conrail between Suffern, NY and Port Jervis, NY. Metro North operates 16 commuter trains per weekday over this segment. Conrail uses this route for local service and as a limited through route between northern New Jersey (Oak Island) and Buffalo. This line would go to NS in the Acquisition. NS plans to use the route for intermodal service, with an increase of about three freight trains per day.

The line is single track with three controlled sidings. Since NJT dispatches this line segment, it can ensure that NS's increased operations do not interfere with passenger service.

Conrail operates over the following lines owned by NJT and Metro North:

- NJT Bergen County Line
- NJT Boonton Line
- NJT Gladstone Line
- NJT Morristown Line

NJT North Jersey Coast Line

NJT Pascack Valley Line

Metro North Harlem Line

Metro North Hudson Line

Metro North New Haven Line

These lines are depicted in the schematic illustrations in Figures 1-8 through 1-10. Most of these lines are used only for local Conrail freight service.

The Bergen County, Pascack Valley, Boonton, Morristown and Gladstone Lines would be used by NS after the Acquisition for local freight service. The Hudson,[4] Harlem and New Haven Lines would be used by CSX after the Acquisition for local freight service. The North Jersey Coast Line would be in a Shared Assets Area and would also be used for local freight service. No change is expected in local freight operations as a result of the Acquisition. Moreover, CSX and NS would have flexibility in scheduling the local freight operations over these lines so that they would not interfere with commuter operations.

Conrail has a 15-year trackage rights agreement with Metro North (operator) and New York MTA and Connecticut Department of Transportation (owners) that covers joint usage of the

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[4] Two Conrail lines run from the northern New Jersey/New York City area to the north along the Hudson River, the River Line on the west side of the river and the Hudson Line on the east side. There are presently no passenger service operations on the River Line. There is significant passenger service on the Hudson Line. Indeed, the line is owned by Metro North as far north as Poughkeepsie. Although Conrail has unlimited trackage rights over the Hudson Line to Poughkeepsie, it has limited its operations in favor of the River Line. The River and Hudson Lines would be allocated to CSX. Although the River Line would experience an increase in freight traffic, CSX does not anticipate changes in operations over the Hudson Line.

Harlem Line, Hudson Line and New Haven Line among others. The agreement is to expire January 1, 1998, and is renewable on a year-to-year basis. Passenger trains have priority under this agreement.

Conrail also has a trackage rights agreement with NJT, renewable annually, expiring October 31, 1997, which specifies the rights and responsibilities between Conrail and NJT in northern New Jersey. The agreement provides that preference be given to passenger service over freight.[5]

8.2.3 Philadelphia Area

The Southeastern Pennsylvania Transportation Authority (SEPTA) operates substantial commuter service over a network of routes radiating out of Center City Philadelphia. SEPTA owns most of its routes. SEPTA operates over a limited number of rail segments owned by Conrail.

Two segments of Conrail's Trenton Line between Philadelphia and Trenton are used by SEPTA as parts of its commuter system. A 3.4-mile segment between CP Newtown Junction, PA and CP Cheltenham Junction, PA is used by SEPTA for its R8 Fox Chase Service. That segment currently handles 48 SEPTA trains each weekday and fewer on weekends. A six mile segment between CP Wood (near Neshaminy, PA) and West Trenton, NJ is used by SEPTA for its R3 West Trenton Service. That segment currently handles 48 SEPTA trains each weekday and fewer on weekends. The Trenton Line would be allocated to CSX in the Transaction.

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[5] In addition, Conrail has a 15-year agreement with Port Authority TransHudson Corporation (PATH), expiring September 28, 1999. The agreement provides for Conrail operation of the Hackensack River drawbridges near Jersey City, NJ. Conrail uses one drawbridge for freight trains and PATH uses the other drawbridge for passenger trains. Because freight and passenger trains are segregated, the agreement has no restrictions on operation levels.

Freight traffic is expected to decrease slightly (about one train per day) on the CP Newtown Junction to CP Cheltenham Junction segment. A moderate decrease in freight traffic (four trains per day) is expected on the CP Wood to Trenton, NJ segment. The Transaction would thus have no effect on commuter service on this line.

Conrail operates over a one-mile segment owned by SEPTA in Norristown, PA (the SEPTA R6 line) to connect from its Harrisburg Line to its Morrisville Line. The segment extends from Conrail's Abrams Yard to Ford Street. NS will succeed to Conrail's trackage rights. Conrail presently uses the segment for through freight and for its double stack intermodal traffic moving between Harrisburg and Morrisville, PA/North Jersey. NS proposes to clear the Pattenburg Tunnel in Pennsylvania for double stack, and will then reroute most of the freight traffic from the Norristown segment to the Allentown-Pattenburg-Bound Brook route to northern New Jersey. Freight traffic over this connecting track is expected to increase slightly (2-3 trains per day) until the tunnel is cleared. The segment will then experience a slight decrease in activity from current volumes.

Conrail also handles freight on several other routes radiating from Philadelphia that are owned by SEPTA, NJT or Amtrak. Freight traffic on these routes is generally local. These lines would be in the South Jersey/Philadelphia Shared Assets Area. Changes in freight traffic on these lines are not anticipated.

Conrail has a trackage rights agreement with SEPTA, effective October 1, 1990, that is subject to termination upon six-months notice. The agreement covers both lines owned by Conrail and lines owned by SEPTA. The agreement gives priority to existing passenger operations. SEPTA may increase the level of its passenger service, provided that the increase does not unreasonably interfere with existing or planned uses of the rail properties.

Philadelphia area rail lines (other than Shared Assets Area lines) with both commuter and freight operations are depicted in the schematic illustrations in Figures 1-11 and 1-12.

8.2.4 Baltimore Area

Between Baltimore, MD and Washington, DC, CSX operates for Maryland Rail Commuter (MARC) 22 commuter trains each weekday over CSX's Capital Subdivision (referred to by MARC as the Camden Line).

A moderate increase in freight traffic (three to seven trains per day) is expected on this 36-mile line. This line segment is double track with CTC bi-directional signalling. It has sufficient capacity to accommodate the increased freight traffic without any adverse effect on MARC service.

CSX and MARC are planning to construct a direct rail connection between the Amtrak Northeast Corridor line (over which MARC operates its Penn Line service) and the Camden Line's Camden Station in Baltimore. When constructed, this connection would permit increased use of Camden Station for commuter trains and special trains to sports events at the baseball and football stadia at Camden Yards via the Amtrak line.

To date in 1997, CSX operated 98 percent of MARC's trains on schedule. CSX does not expect the Acquisition to affect that record. CSX is presently renegotiating its operating agreement with MARC.

Conrail has perpetual rights to operate local freight service over the Maryland MTA line from Baltimore, MD to Cockeysville, MD. These rights would go to NS. No change in local freight service is expected.

Baltimore area rail lines with both commuter and freight operations are depicted in the schematic illustration in Figure 1-13.

8.2.5 Washington, DC Area

8.2.5.1 MARC

In addition to its operations between Washington, DC and Baltimore, CSX presently operates for MARC an average of 18 commuter trains per weekday over CSX's Metropolitan Subdivision between Union Station in Washington, DC, and Brunswick, MD (referred to by MARC as the Brunswick Line). Ten of these trains provide extended service to Martinsburg, WV.

Freight traffic is expected to increase by seven to eight trains over this line, but the line has sufficient capacity to accommodate this increase without adverse impact on commuter operations. The track from Union Station to Martinsburg is high capacity double track. There is CTC bi-directional signalling between Union Station and Brunswick.

MARC has completed preliminary planning for additional service to Frederick, MD from this line. Planned capital improvements include additional passing sidings or double track. These improvements would provide sufficient additional capacity to accommodate this new service without adverse impacts on performance.

Washington, DC area rail lines with both commuter and freight operations are depicted in the schematic illustration in Figure 1-14.

8.2.5.2 Virginia Railway Express

Virginia Railway Express (VRE) currently operates 26 commuter trains on an average weekday over the eight-mile line segment between Washington, DC (Virginia Ave.) and Alexandria, VA (Potomac Yard), owned by Conrail and CSX. Twelve of these 26 VRE trains originate or terminate at Fredericksburg, VA, and operate between Alexandria and Fredericksburg over CSX's RF&P Subdivision. The remaining 14 trains per day operate on NS between Alexandria, VA and Manassas, VA.

As noted above, the eight-mile segment from Virginia Avenue through CSX's Potomac Yard is expected to experience an increase of about 11 freight trains per day. From Potomac Yard south to Fredericksburg, the increase is expected to be about seven freight trains per day. However, as noted above, with the current high capacity of the track and the additional improvements, quality commuter and freight service can be maintained on this line.

The NS line from Alexandria to Manassas is double track with CTC bi-directional signalling. VRE operates 14 trains on weekdays over this segment. NS expects a two train per day increase in freight traffic on this segment. This slight increase would have no effect on VRE's service.

CSX has a 5-year contract with VRE, expiring June 30, 1999. VRE may increase service if a third parallel main line and accompanying improvements are constructed. NS has an annually renewable contract with VRE which allows VRE to operate up to 18 trains per day between Alexandria and Manassas, VA. Conrail has an agreement with VRE governing VRE's use of Conrail's line from Virginia Ave., D.C. to Potomac Yard. This line would go to CSX. The agreement had an original term of 5 years, and is now renewable annually with the present renewal to expire on December 1, 1997. VRE may increase its service over Conrail's line by mutual agreement with Conrail.

8.2.6. Miami Area

The line that CSX (as well as Amtrak) uses between Miami and Mangonia Park, FL (near Dyer), is owned by the Florida Department of Transportation (FDOT) and operated by the Tri-County Commuter Rail Authority (Tri- Rail). Over this line, Tri-Rail operates 30 trains each weekday and fewer on weekends, and CSX operates six freight trains daily. There will be no change in the number of freight trains that CSX will operate on Tri-Rail.

CSX's agreement with FDOT has no expiration date and does not limit passenger service. CSX's freight service may not interfere with current and future uses of the line by FDOT. Tri-Rail and Amtrak operate their passenger service pursuant to agreement with FDOT.

The Miami area rail line with both commuter and freight operations is depicted in the schematic illustration in Figure 1-15.

8.2.7. Chicago Area

The Northeast Illinois Regional Commuter Railroad Corporation (Metropolitan Rail, or METRA) has limited overlap with NS freight operations in Chicago. The Acquisition would have no effect on METRA service.

METRA service from Chicago Union Station to Orland Park (18 trains each weekday) operates over a 12-mile segment from 74th St. to Orland Park which is owned by NS, but leased to METRA. NS operates a local train over this segment 2 to 3 times per week. NS also operates some trains over a short segment owned by METRA between 74th Street and 40th Street. No change in this freight service is expected.

The Chicago area rail lines with both commuter and freight operations are depicted in the schematic illustration in Figure 1-16.

TABLE 1-37

Amtrak Trains Presently Operating Over Lines Owned by CSX, NS and Conrail

- **Adirondack** **(Trains 68, 69, 70 and 71)**
Montreal-Westport/Lake Placid-Saratoga Springs-Albany-New York-Philadelphia-Washington

Daily service in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie and Schenectady, NY (86 miles).

- **Auto Train** **(Trains 52 and 53)**
Lorton, VA-Sanford, FL

Daily service in each direction.

Operates on CSX track between Lorton, VA and Sanford, FL (861 miles).

- **Capitol Limited** **(Trains 29 and 30)**
Washington-Pittsburgh-Cleveland-Toledo-Chicago

Daily service in each direction.

Operates on CSX track between Washington, DC and Pittsburgh (Willow Grove Junction) (via Cumberland, MD) (297 miles); operates on Conrail (future NS) track between Pittsburgh and Chicago (480 miles).

- **Cardinal** **(Trains 50 and 51)**
Chicago-Indianapolis-Cincinnati-Charleston-Washington

Service three times per week in each direction.

Operates on CSX track between Munster, IN and Crawfordsville, IN (123 miles); Conrail (future CSX) track between Crawfordsville, IN and Indianapolis (47 miles); CSX track between Indianapolis and Orange, VA (632 miles); NS track from Orange, VA to Alexandria, VA (75 miles); then on CSX track through Alexandria (Potomac Yard) and Conrail (future CSX) track to Washington, DC (Virginia Ave.) (8 miles). The CSX track totals 755 miles, the NS track totals 75 miles, and the Conrail track totals 47 miles.

• **<u>Carolinian</u> (Trains 79 and 80)**
New York-Philadelphia-Washington-Richmond-Raleigh-Charlotte

Daily service in each direction.

Operates on Conrail (future CSX) track between Washington, DC (Virginia Ave.) and Arlington, VA (north end of Potomac Yard) (3 miles); on CSX track between Arlington, VA and Selma, NC (276 miles); on NS (line owned by North Carolina Railroad Company, or "NCRR") track between Selma, NC and Charlotte, NC (200 miles).

• **<u>Charter Oak</u> (Trains 85 and 86)**
Springfield-New York-Philadelphia-Washington-Richmond

Daily service in each direction.

Operates on Conrail (future CSX) track between Washington, D.C. (Virginia Ave.) and Arlington, VA (north end of Potomac Yard) (3 miles). Operates on CSX track between Arlington, VA and Richmond (114 miles).

• **<u>Crescent</u> (Trains 19 and 20)**
New York-Washington-Charlotte-Atlanta-Birmingham-New Orleans

Daily service in each direction.

Operates on Conrail (future CSX) track between Washington, DC (Virginia Ave.) and Arlington, VA (north end of Potomac Yard) and then on CSX track through Alexandria, VA (south end of Potomac Yard) (a total of about 8 miles); operates on NS track between Alexandria, VA and New Orleans, via Atlanta and Birmingham (1,144 miles).

• **<u>Empire State Express</u> (Trains 283, 286)**
New York-Albany-Buffalo-Niagara Falls

Daily service in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie and Niagara Falls, NY (387 miles).

• **<u>Ethan Allen Express</u> (Trains 290, 291, 293, 294, 296)**
New York-Albany-Schenectady-Rutland

Daily service in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie and Schenectady (86 miles).

• **<u>Hudson Valley Express</u> (Trains 246 and 259)**
New York-Albany-Schenectady

Service 4-5 days per week in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie and Albany, NY (Rensselaer) (68 miles).

• **<u>Hudson Valley Service</u> (Trains 242, 244, 248, 250, 251, 254, 257, 265, 267, 271, 277)**
New York-Albany-Schenectady

Service 2-4 times daily in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie, NY and Schenectady, NY (86 miles).

• **<u>Gotham Limited</u> (Train 194)/ <u>James River</u> (Trains 75 and 78)/ <u>Old Dominion</u> (Trains 94 and 95)/ <u>Tidewater</u> (Train 96)/ <u>Virginian</u> (Train 99)**
Points North-Washington-Richmond-Newport News

Approximately twice daily service in each direction.

Operates on Conrail (future CSX) track from Washington (Virginia Ave.) to Arlington, VA (north end of Potomac Yard), and then on CSX track from Arlington, VA to Newport News (Hampton) (183 miles).

• **Lake Shore Limited** **(Trains 48 and 49)**
New York-Albany-Buffalo-Cleveland-Toledo-Chicago

Daily service in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie, NY and Cleveland (545 miles); operates on Conrail (future NS) track from Cleveland to Chicago (340 miles).

• **Lake Shore Limited** **(Trains 448 and 449)**
Albany-Boston

Daily service in each direction.

Operates on Conrail (future CSX) track between Albany (Rensselaer) and Boston Beacon Park (192 miles) (except that 12 miles between Boston and Framingham, MA are owned by the MBTA).

• **Maple Leaf** **(Trains 63 and 64)**
New York-Albany-Syracuse-Buffalo-Niagara Falls-Toronto

Daily service in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie and Niagara Falls, NY (387 miles).

• **Mohawk** **(Trains 281 and 284)**
New York-Albany-Buffalo-Niagara Falls.

Service three days per week in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie and Niagara Falls, NY (387 miles).

• **Oneida** **(Train 289)**
New York-Albany-Syracuse

Service one day per week to Syracuse.

Operates on Conrail (future CSX) track between Poughkeepsie and Syracuse, NY (212 miles).

• **Pennsylvanian** **(Trains 43 and 44)**
New York-Philadelphia-Harrisburg-Altoona-Johnstown-Pittsburgh

Daily service in each direction.

Operates on Conrail (future NS) track between Harrisburg, PA and Pittsburgh, PA (249 miles).

• **Pere Marquette** **(Trains 370 and 371)**
Chicago-Benton Harbor-Holland-Grand Rapids

Daily service in each direction.

Operates on Conrail (future NS) track from Chicago to Porter, IN (24 miles); and on CSX track between Porter, IN and Grand Rapids, MI (136 miles).

• **Piedmont** **(Trains 73 and 74)**
Raleigh-Greensboro-Charlotte

Daily service in each direction.

Operates on NS (NCRR) track between Raleigh and Charlotte, NC (172 miles).

• **Silver Meteor** (Trains 97 and 98)
New York-Philadelphia-Washington-Richmond-Charleston-Savannah-Jacksonville-Miami

Daily service in each direction.

Operates on Conrail (future CSX) track between Washington, DC and Arlington, VA (north end of Potomac Yard) (3 miles). Operates on CSX track between Arlington, VA and West Palm Beach, FL, via Orlando, FL (1092 miles).

• **Silver Palm** **(Trains 89 and 90)**
New York-Philadelphia-Washington-Richmond-Charleston-Savannah-Jacksonville-Tampa-Miami

Daily service in each direction.

Operates on Conrail (future CSX) track between Washington, DC and Arlington, VA (north end of Potomac Yard) (3 miles); and on CSX track between Arlington, VA and West Palm Beach, FL, via Wildwood and Tampa, FL (1164 miles).

• **Silver Star** **(Trains 91 and 92)**
New York-Philadelphia-Washington-Richmond-Raleigh-Columbia-Savannah-Jacksonville-Miami

Daily service in each direction.

Operates on Conrail (future CSX) track between Washington, DC and Arlington, VA (north end of Potomac Yard) (3 miles); on CSX track between Arlington, VA and Selma, NC (270 miles); on NS/NCRR track between Selma, NC and Raleigh, NC (35 miles); and on CSX between Raleigh, NC and West Palm Beach, FL, via Orlando, FL (940 miles).

• **Southwest Chief** **(Trains 3 and 4)**
Chicago-Kansas City-Albuquerque-Los Angeles

Daily service in each direction.

Operates on joint NS/Burlington Northern Santa Fe track between Carrollton (WB Junction) and Camden, MO (30 miles).

• **Sunset Limited** **(Trains 1 and 2)**
Los Angeles-New Orleans-Jacksonville-Sanford, FL

Service three times per week in each direction.

Operates on CSX track between New Orleans and Sanford, FL (732 miles).

• **Three Rivers** **(Trains 40 and 41)**
New York-Philadelphia-Harrisburg-Altoona-Johnstown-Pittsburgh-Chicago

Daily service in each direction.

Operates on Conrail (future NS) track between Harrisburg and New Castle, PA (292 miles); on CSX track between New Castle, PA and Indiana Harbor, IN (428 miles); and on Conrail (future NS) track between Indiana Harbor, IN and Chicago (15 miles).

• **Tidewater** **(Train 195)/ Virginian (Trains 84 and 93)**
Points North-Washington-Richmond

Approximately daily service in each direction.

Operates on Conrail (future CSX) track from Washington (Virginia Ave.) to Arlington, VA (north end of Potomac Yard), and then on CSX track from Arlington, VA to Richmond (105 miles).

• **Vermonter** **(Trains 55 and 56)**
St. Albans-Burlington-Springfield-New York-Washington

Daily service in each direction.

Operates on Conrail (future CSX) track between Springfield, MA and Palmer, MA (15 miles).

• **<u>Water Level Express</u> (Trains 287 and 288)**
New York-Albany-Buffalo-Niagara Falls

Service one day per week in each direction.

Operates on Conrail (future CSX) track between Poughkeepsie and Niagara Falls, NY (387 miles).

• **<u>Wolverine</u>/<u>International</u>/<u>Lake Cities</u>/<u>Twilight</u> Limited (Trains 350, 351, 352, 353, 354, 355, 364, 365 and 367)**
Chicago-Kalamazoo-Battle Creek-Detroit/Pontiac/Port Huron

Service four times daily in each direction.

Operates on Conrail (future NS) between Chicago and Porter, IN (24 miles) and between Kalamazoo, MI and Detroit, MI (141 miles).

Table 1-38

CSX, NS, AND CONRAIL LINE SEGMENTS WITH AMTRAK SERVICE SORTED BY DECREASING CHANGES IN FREIGHT ACTIVITY

SEGMENT FROM STATION		TO STATION		ROAD	MILES	PSGR	1995 ADJ BASE FREIGHT	POST-ACQUISITION FREIGHT	POST-ACQUISITION TOTAL	CHANGE IN # OF TRNS/DAY
DESHLER	OH	WILLOW CREEK	IN	CSXT	174	2	21.4	47.7	49.7	26.3
GREENWICH	OH	WILLARD	OH	CSXT	11.6	2	32.5	55.2	57.2	22.7
WILLARD	OH	FOSTORIA	OH	CSXT	36.8	2	32.5	54	56	21.5
KENOVA	WV	BIG SANDY JCT	WV	CSXT	1	0.9	15.4	33.2	34.1	17.8
WILLOW CREEK	IN	PINE JCT	IN	CSXT	12	2	20.1	36.6	38.6	16.5
WHITE	OH	CLEVELAND	OH	CR	11	2	12.5	26.8	28.8	14.3
CP 501	IN	INDIANA HARBO	IN	CR	1	14	43.4	56.5	70.5	13.1
Virginia Ave	DC	Potomac yard	VA	CR	6	35	17.9	28.6	63.6	10.7
SINNS	PA	RANKIN JCT	PA	CSXT	9	2	30.8	40.2	42.2	9.4
Bowie	MD	Landover	MD	AMTK	8.3	99	3.2	12.5	112	9.3
WEST DETROIT	MI	JACKSON	MI	CR	74	8	2.9	12.1	20.1	9.2
OAK HARBOR	OH	AIRLINE	OH	CR	24	4	48.6	57.1	61.1	8.5
PT OF ROCK	MD	HARPERS FERRY	WV	CSXT	13	14.4	33.3	41.6	56	8.3
Arsenal	PA	Davis	DE	AMTK	25	116	2.3	10.5	127	8.2
CARROLTON	MO	CAMDEN	MO	NS	30	2	18	26	28	8
Davis	DE	Perryville	MD	AMTK	21.1	67	4.5	12.4	79.4	7.9
INDIANA HARBOR	IN	SOUTH CHICAGO	IL	CR	8	16	41.1	49	65	7.9
Lane	NJ	Union	NJ	AMTK	7.1	240	3.4	11	251	7.6
Union	NJ	Midway	NJ	AMTK	21.6	166	3.4	11	177	7.6
Midway	NJ	Morrisville	PA	AMTK	17.3	156	3.4	11	167	7.6
HARPERS FERRY	WV	CHERRY RUN	WV	CSXT	32	7	33.3	40.6	47.6	7.3
FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	49	22	16.3	23.4	45.4	7.1
WASHINGTON	DC	PT OF ROCK	MD	CSXT	43	14.4	23.8	30.8	45.2	7
NEW CASTLE	PA	YOUNGSTOWN	OH	CSXT	18.3	2	32.6	39.6	41.6	7
RICHMOND	VA	DOSWELL	VA	CSXT	24	14.5	17.8	24.8	39.3	7
HARRISBURG	PA	MARYSVILLE	PA	CR	9	4	42.4	49.1	53.1	6.7
DOSWELL	VA	FREDERICKSBUR	VA	CSXT	37	14.5	16.2	22.8	37.3	6.6
Syracuse	NY	Syracuse Jct	NY	CR	5.5	7.1	40	46.6	53.7	6.6
Syracuse Jct	NY	Solvay	NY	CR	2	7.1	38.2	44.8	51.9	6.6
JACKSON	MI	KALAMAZOO	MI	CR	67	8	5.4	12	20	6.6
Hoffmans	NY	Utica	NY	CR	66.4	7.4	38.3	44.8	52.2	6.5
Utica	NY	Syracuse	NY	CR	50.6	7.4	36.9	43.4	50.8	6.5
WELDON	NC	ROCKY MT	NC	CSXT	37	8	19.6	25.5	33.5	5.9
Ashtabula	OH	Quaker	OH	CR	46.5	2	48.3	54.2	56.2	5.9
SAVANNAH	GA	JESUP	GA	CSXT	52	6	17.3	22.8	28.8	5.5
Solvay	NY	Lyons	NY	CR	42.3	7.1	39.5	44.8	51.9	5.3
Lyons	NY	Fairport	NY	CR	23.4	7.1	39.8	45.1	52.2	5.3
Chili	NY	Frontier	NY	CR	50.5	7.1	40.6	45.9	53	5.3
Baltimore	MD	Bowie	MD	AMTK	28.6	99	2.4	7.7	107	5.3
CUMBERLAND	MD	SINNS	PA	CSXT	133	2	27.4	32.5	34.5	5.1
Fairport	NY	Rochester	NY	CR	10.7	7.1	31.8	36.5	43.6	4.7
S. RICHMOND	VA	WELDON	NC	CSXT	82	8	18.4	23	31	4.6
MERIDIAN	MS	OLIVER JCT	LA	NS	194	2	9.1	13.5	15.5	4.4
MONTVIEW	VA	ALTAVISTA	VA	NS	21	2	15.4	19.6	21.6	4.2
FOSTORIA	OH	DESHLER	OH	CSXT	26	2	34	37.9	39.9	3.9

Table 1-38

CSX, NS, AND CONRAIL LINE SEGMENTS WITH AMTRAK SERVICE
SORTED BY DECREASING CHANGES IN FREIGHT ACTIVITY

SEGMENT FROM STATION		TO STATION		ROAD	MILES	PSGR	1995 ADJ BASE FREIGHT	POST-ACQUISITION FREIGHT	POST-ACQUISITION TOTAL	CHANGE IN # OF TRNS/DAY
FLORENCE	SC	LANE	SC	CSXT	49	4	12.7	16.6	20.6	3.9
ASHLEY JCT	SC	YEMASSEE	SC	CSXT	54	4	16.7	20.6	24.6	3.9
YEMASSEE	SC	SAVANNAH	GA	CSXT	55	4	12.2	16.1	20.1	3.9
ST STEPHEN	SC	ASHLEY JCT	SC	CSXT	39	4	12.7	16.5	20.5	3.8
PITCAIRN	PA	JACKS RUN	PA	CR	18	4	32.8	36.6	40.6	3.8
LANE	SC	ST STEPHEN	SC	CSXT	8	4	16.2	19.9	23.9	3.7
Morrisville	PA	Zoo	PA	AMTK	28.5	132	3.4	7.1	139	3.7
Rochester	NY	Chili	NY	CR	12.7	7.1	33.4	36.9	44	3.5
DILLON	SC	FLORENCE	SC	CSXT	31	4	15.6	19	23	3.4
CINCINNATI	OH	HAMILTON	OH	CSXT	21	1	28.2	31.2	32.2	3
CONTENTNEA	NC	SELMA	NC	CSXT	22	8	18.2	21	29	2.8
Buffalo	NY	Draw	NY	CR	1.7	2	55.8	58.5	60.5	2.7
ROCKY MT	NC	CONTENTNEA	NC	CSXT	19	8	19.6	22.1	30.1	2.5
JESUP	GA	FOLKSTON	GA	CSXT	54	6	10.3	12.4	18.4	2.1
MOBILE	AL	NEW ORLEANS	LA	CSXT	143	0.8	20.6	22.7	23.5	2.1
CHERRY RUN	WV	CUMBERLAND	MD	CSXT	65	2	29	31	33	2
HAMILTON	OH	INDIANAPOLIS	IN	CSXT	99	0.9	3	5	5.9	2
Indianapolis	IN	Kraft	IN	CR	3	1.4	7.8	9.8	11.2	2
Kraft	IN	Avon	IN	CR	5.6	1.4	9.6	11.6	13	2
ALEXANDRIA	VA	MANASSAS	VA	NS	22	11.7	11.3	13.3	25	2
BURSTAL	AL	MERIDIAN	MS	NS	140	2	16.2	18.2	20.2	2
ST ALBANS	WV	BARBOURSVILLE	WV	CSXT	29	0.9	10.9	12.8	13.7	1.9
W Detroit	MI	Dearborn	MI	CR	4.5	6	1.6	3.4	9.4	1.8
BARBOURSVILLE	WV	HUNTINGTON	WV	CSXT	10	0.9	13.4	14.9	15.8	1.5
PEMBROKE	NC	DILLON	SC	CSXT	21	4	15.7	17.2	21.2	1.5
JACKSONVILLE	FL	BALDWIN	FL	CSXT	18	2.8	21.9	23.3	26.1	1.4
PENSACOLA	FL	FLOMATON	AL	CSXT	43	0.8	9.9	11.3	12.1	1.4
ORLANDO	FL	AUBURNDALE	FL	CSXT	51	4	7.7	9.1	13.1	1.4
AUBURNDALE	FL	LAKELAND	FL	CSXT	12	4	7.2	8.6	12.6	1.4
ALLIANCE	OH	WHITE	OH	CR	46	2	26.4	27.8	29.8	1.4
YOUNGSTOWN	OH	STERLING	OH	CSXT	79.1	2	32.6	33.9	35.9	1.3
HUNTINGTON	WV	KENOVA	WV	CSXT	8	0.9	15.5	16.8	17.7	1.3
LAKELAND	FL	WINSTON	FL	CSXT	4	4	17.6	18.9	22.9	1.3
WINSTON	FL	PLANT CITY	FL	CSXT	5	4	9.8	11.1	15.1	1.3
Perryville	MD	Baltimore	MD	AMTK	32.4	77	14.3	15.6	92.6	1.3
MANASSAS	VA	MONTVIEW	VA	NS	142	2.2	13.7	15	17.2	1.3
SELMA	NC	FAYETTEVILLE	NC	CSXT	49	4	20.4	21.6	25.6	1.2
CLIFTON FORGE	VA	ST ALBANS	WV	CSXT	195	0.9	9.8	10.9	11.8	1.1
N J CABIN	KY	COVINGTON	KY	CSXT	121	0.9	7.5	8.6	9.5	1.1
FLOMATON	AL	MOBILE	AL	CSXT	59	0.8	25.1	25.8	26.6	0.7
FOLKSTON	GA	CALLAHAN	FL	CSXT	22	6	43.9	44.6	50.6	0.7
Buff Seneca	NY	Ashtabula	OH	CR	122.8	2	50.1	50.8	52.8	0.7
ALTAVISTA	VA	GREENSBORO	NC	NS	86	2	15.9	16.6	18.6	0.7
HOWELL	GA	AUSTELL	GA	NS	16	2	49.7	50.4	52.4	0.7
BALDWIN	FL	STARKE	FL	CSXT	26	2	22.7	23.3	25.3	0.6

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Table 1-38

CSX, NS, AND CONRAIL LINE SEGMENTS WITH AMTRAK SERVICE
SORTED BY DECREASING CHANGES IN FREIGHT ACTIVITY

SEGMENT FROM STATION		TO STATION		ROAD	MILES	PSGR	1995 ADJ BASE FREIGHT	POST-ACQUISITION FREIGHT	POST-ACQUISITION TOTAL	CHANGE IN # OF TRNS/DAY
PLANT CITY	FL	UCETA YARD	FL	CSXT	17	4	9.1	9.6	13.6	0.5
STERLING	OH	GREENWICH	OH	CSXT	37.1	2	32.5	32.9	34.9	0.4
MARYSVILLE	PA	PITCAIRN	PA	CR	227	4	42.5	42.8	46.8	0.3
FAYETTEVILLE	NC	PEMBROKE	NC	CSXT	31	4	22.1	22.2	26.2	0.1
Avon	IN	Clermont	IN	CR	4	1.4	8.8	8.9	10.3	0.1
Clermont	IN	Crawfordsvill	IN	CR	34.2	1.4	7.4	7.5	8.9	0.1
GREENSBORO	NC	RALEIGH YARD	NC	NS	83	4	5	5.1	9.1	0.1
ASHLAND	KY	RUSSELL	KY	CSXT	4	0.9	32.5	32.5	33.4	0
RIVANNA JCT	VA	CHARLOTTESVIL	VA	CSXT	98	0.9	1.5	1.5	2.4	0
CHARLOTTESVILL	VA	CLIFTON FORGE	VA	CSXT	103	0.9	1.9	1.9	2.8	0
MUNSTER	IN	MONON	IN	CSXT	62	1.4	2.5	2.5	3.9	0
MONON	IN	LAFAYETTE	IN	CSXT	30	1.4	3	3	4.4	0
LAFAYETTE	IN	CRAWFORDSVILL	IN	CSXT	29	1.4	7.6	7.6	9	0
MCBEE	SC	COLUMBIA	SC	CSXT	108	2	4.4	4.4	6.4	0
STARKE	FL	VITIS	FL	CSXT	126	2	19.3	19.3	21.3	0
JACKSONVILLE	FL	PALATKA	FL	CSXT	54	4.8	8.3	8.3	13.1	0
PALATKA	FL	SANFORD	FL	CSXT	68	4.8	6.6	6.6	11.4	0
SANFORD	FL	ORLANDO	FL	CSXT	22	4.8	8	8	12.8	0
AUBURNDALE	FL	SEBRING	FL	CSXT	47	4	11.3	11.3	15.3	0
SEBRING	FL	W. PALM BCH	FL	CSXT	103	6	15.6	15.6	21.6	0
W. PALM BCH	FL	MIAMI	FL	CSXT	70	30	6.7	6.7	36.7	0
RANKIN JCT	PA	WILLOW GROVE	PA	CSXT	11	2	1.7	1.7	3.7	0
RALEIGH	NC	HAMLET	NC	CSXT	97	2	8.2	8.2	10.2	0
VITIS	FL	LAKELAND	FL	CSXT	19	2	16.4	16.4	18.4	0
Readville	MA	Boston	MA	MBTA	9.1	120	0.1	0.1	120	0
Mansfield	MA	Readville	MA	MBTA	15.5	70	4	4	74	0
Attleboro	MA	Mansfield	MA	MBTA	7.2	44	4	4	48	0
MA/RI	RI	Attleboro	MA	MBTA	6.1	24	2	2	26	0
Bridgeport	CT	New Haven	CT	CDOT	16	102	3	3	105	0
Norwalk	CT	Bridgeport	CT	CDOT	15.5	92	2	2	94	0
New Rochelle	NY	Norwalk	CT	CDOT	25	192	5	5	197	0
MO	NY	Poughkeepsie	NY	MNR	70.1	140	6	6	146	0
Poughkeepsie	NY	Stuyvesant	NY	CR	50.1	20	4	4	24	0
Stuyvesant	NY	Rensselaer	NY	CR	16.4	20	1	1	21	0
Rensselaer	NY	W Albany	NY	CR	4	14	3.4	3.4	17.4	0
W Albany	NY	Hoffmans	NY	AMTK	23	7.4	0.1	0.1	7.5	0
Buffalo	NY	Black Rock	NY	CR	7.1	5.1	1.6	1.6	6.7	0
RALEIGH JCT	NC	GOLDSBORO	NC	NS	50	4	1.6	1.6	5.6	0
HAMLET	NC	MCBEE	SC	CSXT	108	2	3.4	3.3	5.3	-0.1
COLUMBIA	SC	FAIRFAX	SC	CSXT	76	2	3.9	3.7	5.7	-0.2
Springfield	MA	Westfield	MA	CR	11	2	22.3	22.1	24.1	-0.2
Westfield	MA	Selkirk	NY	CR	85	2	24.3	24.1	26.1	-0.2
CALLAHAN	[illegible]	JACKSONVILLE	FL	CSXT	16	6	23.5	23.2	29.2	-0.3
Worcester	MA	Palmer	MA	CR	39	4	20.3	19.9	23.9	-0.4
Palmer	MA	Springfield	MA	CR	15.3	6	22.3	21.9	27.9	-0.4

Table 1-38

CSX, NS, AND CONRAIL LINE SEGMENTS WITH AMTRAK SERVICE SORTED BY DECREASING CHANGES IN FREIGHT ACTIVITY

SEGMENT FROM STATION		TO STATION		ROAD	MILES	PSGR	1995 ADJ BASE FREIGHT	POST-ACQUISITION FREIGHT	POST-ACQUISITION TOTAL	CHANGE IN # OF TRNS/DAY
HAYNE YARD	SC	HOWELL	GA	NS	181	2	16.9	16.5	18.5	-0.4
BALDWIN	FL	CHATTAHOOCHEE	FL	CSXT	189	0.8	11.7	11.1	11.9	-0.6
CHATTAHOOCHEE	FL	PENSACOLA	FL	CSXT	161	0.8	10.3	9.7	10.5	-0.6
Boston Beacon	MA	Framingham	MA	CR	18.3	38	9.3	8.7	46.7	-0.6
JACKS RUN	PA	CONWAY EAST	PA	CR	16	4	50.4	49.8	53.8	-0.6
PORTER	IN	CP 501	IN	CR	20	14	69.4	68.7	82.7	-0.7
FAIRFAX	SC	SAVANNAH	GA	CSXT	62	2	12.4	11.6	13.6	-0.8
Framingham	MA	Westboro	MA	CR	11.9	12	15.3	14.4	26.4	-0.9
Westboro	MA	Worcester	MA	CR	11	12	15.3	14.4	26.4	-0.9
HAMPTON	VA	RIVANNA JCT	VA	CSXT	80	2.9	9.6	8.6	11.5	-1
Black Rock	NY	Niagara Falls	NY	CR	21.1	5.1	23	22	27.1	-1
LINWOOD	NC	SALISBURY	NS	NS	9	6	24.7	23.3	29.3	-1.4
BEAUMONT	SC	HAYNE YARD	SC	NS	2	2	19.2	17.6	19.6	-1.6
GREENSBORO	NC	LINWOOD	NC	NS	41	6	20.2	18.3	24.3	-1.9
WAVERLY	MI	PORTER	IN	CSXT	110	2	4.8	2.8	4.8	-2
BIG SANDY JCT	KY	ASHLAND	KY	CSXT	6	0.9	32.5	30.5	31.4	-2
RUSSELL	KY	N J CABIN	KY	CSXT	19	0.9	20.8	18.8	19.7	-2
BIRMINGHAM 50S	AL	BURSTAL	AL	NS	16	2	27.8	25.8	27.8	-2
OLIVER JCT	LA	KCS SHREWSBUR	LA	NS	11	2	17.1	14.9	16.9	-2.2
CINCINNATI	OH	COVINGTON	KY	CSXT	6	0.9	35.9	33.6	34.5	-2.3
SALISBURY	NS	CHARLOTTE	NS	NS	50	6	21.1	18.1	24.1	-3
NORRIS YARD	AL	BIRMINGHAM 50	AL	NS	5	2	37.4	34.3	36.3	-3.1
Draw	NY	Buff Crk Jct	NY	CR	0.4	2	55.8	52.5	54.5	-3.3
Buff Crk Jct	NY	Buff Seneca	NY	CR	3.3	2	55.8	52.5	54.5	-3.3
Frontier	NY	Buffalo	NY	CR	4.1	7.1	52.8	49.5	56.6	-3.3
GRAND RAPIDS	MI	WAVERLY	MI	CSXT	26	2	8.2	4.5	6.5	-3.7
CHARLOTTE	NS	BEAUMONT	SC	NS	70	2	18.1	14	16	-4.1
AUSTELL	GA	NORRIS YARD	AL	NS	142	2	19.1	14.5	16.5	-4.6
AIRLINE	OH	BUTLER	OH	CR	68	4	50.4	43.8	47.8	-6.6
ELKHART	IN	PORTER	IN	CR	61	4	53	45.2	49.2	-7.8
CONWAY EAST	PA	ROCHESTER	PA	CR	5	4	57.1	48.7	52.7	-8.4
BUTLER	OH	ELKHART	IN	CR	63	4	51.1	40	44	-11.1
ROCHESTER	PA	ALLIANCE	OH	CR	57	2	37.9	26.3	28.3	-11.6
VERMILLION	OH	OAK HARBOR	OH	CR	43	4	48.3	36.2	40.2	-12.1
SOUTH CHICAGO	IL	ASHLAND AVE	IL	CR	9	16	28.5	12.5	28.5	-16
CLEVELAND	OH	VERMILLION	OH	CR	43	4	48.4	24.4	28.4	-24
Quaker	OH	Drawbridge	OH	CR	7.6	2	53.4	12.9	14.9	-40.5

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
SUNSET LIMITED	1,2	SANFORD	FL	LOS ANGELES	CA	22	3 DAYS / WK	SANFORD	FL	ORLANDO	FL	CSXT	0
						68		PALATKA	FL	SANFORD	FL	CSXT	0
						54		JACKSONVILLE	FL	PALATKA	FL	CSXT	0
						18		JACKSONVILLE	FL	BALDWIN	FL	CSXT	1.4
						189		BALDWIN	FL	CHATTAHOOCHEE	FL	CSXT	-0.6
						161		CHATTAHOOCHEE	FL	PENSACOLA	FL	CSXT	-0.6
						43		PENSACOLA	FL	FLOMATON	AL	CSXT	1.4
						59		FLOMATON	AL	MOBILE	AL	CSXT	0.7
						143		MOBILE	AL	NEW ORLEANS	LA	CSXT	2.1
						757							
SOUTHWEST CHIEF	3,4	CHICAGO	IL	LOS ANGELES	CA	30	DAILY	CARROLTON	MO	CAMDEN	MO	NS	8
						30							
CRESCENT	19,20	NEW YORK	NY	NEW ORLEANS	LA	7	DAILY	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						22		ALEXANDRIA	VA	MANASSAS	VA	NS	2
						142		MANASSAS	VA	MONTVIEW	VA	NS	1.3
						21		MONTVIEW	VA	ALTAVISTA	VA	NS	4.2
						86		ALTAVISTA	VA	GREENSBORO	NC	NS	0.7
						41		GREENSBORO	NC	LINWOOD	NC	NS	-1.9
						9		LINWOOD	NC	SALISBURY	NS	NS	-1.4
						50		SALISBURY	NS	CHARLOTTE	NS	NS	-3
						70		CHARLOTTE	NS	BEAUMONT	SC	NS	-4.1
						2		BEAUMONT	SC	HAYNE YARD	SC	NS	-1.6
						181		HAYNE YARD	SC	HOWELL	GA	NS	-0.4
						16		HOWELL	GA	AUSTELL	GA	NS	0.7
						142		AUSTELL	GA	NORRIS YARD	AL	NS	-4.6
						5		NORRIS YARD	AL	BIRMINGHAM 50ST	AL	NS	-3.1
						16		BIRMINGHAM 50ST	AL	BURSTAL	AL	NS	-2
						140		BURSTAL	AL	MERIDIAN	MS	NS	2
						194		MERIDIAN	MS	OLIVER JCT	LA	NS	4.4
						11		OLIVER JCT	LA	KCS SHREWSBURY	LA	NS	-2.2
						1343							
CAPITOL LIMITED	29,30	WASHINGTON	DC	CHICAGO	IL	43	DAILY	WASHINGTON	DC	PT OF ROCK	MD	CSXT	7
						13		PT OF ROCK	MD	HARPERS FERRY	WV	CSXT	8.3
						32		HARPERS FERRY	WV	CHERRY RUN	WV	CSXT	7.3

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						65		CHERRY RUN	WV	CUMBERLAND	MD	CSXT	2
						133		CUMBERLAND	MD	SINNS	PA	CSXT	5.1
						9		SINNS	PA	RANKIN JCT	PA	CSXT	9.4
						11		RANKIN JCT	PA	WILLOW GROVE	PA	CSXT	0
						18		PITCAIRN	PA	JACKS RUN	PA	CR	3.8
						16		JACKS RUN	PA	CONWAY EAST	PA	CR	-0.6
						5		CONWAY EAST	PA	ROCHESTER	PA	CR	-8.4
						57		ROCHESTER	PA	ALLIANCE	OH	CR	-11.6
						46		ALLIANCE	OH	WHITE	OH	CR	1.4
						11		WHITE	OH	CLEVELAND	OH	CR	14.3
						43		CLEVELAND	OH	VERMILLION	OH	CR	-24
						[illegible]		VERMILLION	OH	OAK HARBOR	OH	CR	-12.1
						24		OAK HARBOR	OH	AIRLINE	OH	CR	8.5
						68		AIRLINE	OH	BUTLER	OH	CR	-6.6
						63		BUTLER	OH	ELKHART	IN	CR	-11.1
						61		ELKHART	IN	PORTER	IN	CR	-7.8
						20		PORTER	IN	CP 501	IN	CR	-0.7
						1		CP 501	IN	INDIANA HARBOR	IN	CR	13.1
						8		INDIANA HARBOR	IN	SOUTH CHICAGO	IL	CR	7.9
						9		SOUTH CHICAGO	IL	ASHLAND AVE	IL	CR	-16
						799							
THREE RIVERS	40,41	NEW YORK	NY	CHICAGO	IL	7	DAILY	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						1[illegible]		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						9		HARRISBURG	PA	MARYSVILLE	PA	CR	6.7
						227		MARYSVILLE	PA	PITCAIRN	PA	CR	0.3
						18		PITCAIRN	PA	JACKS RUN	PA	CR	3.8
						16		JACKS RUN	PA	CONWAY EAST	PA	CR	-0.6
						5		CONWAY EAST	PA	ROCHESTER	PA	CR	-8.4
						18		NEW CASTLE	PA	YOUNGSTOWN	OH	CSXT	7
						79		YOUNGSTOWN	OH	STERLING	OH	CSXT	1.3
						37		STERLING	OH	GREENWICH	OH	CSXT	0.4
						12		GREENWICH	OH	WILLARD	OH	CSXT	22.7
						39		WILLARD	OH	FOSTORIA	OH	CSXT	21.5
						26		FOSTORIA	OH	DESHLER	OH	CSXT	3.9
						174		DESHLER	OH	WILLOW CREEK	IN	CSXT	26.3
						12		WILLOW CREEK	IN	PINE JCT	IN	CSXT	16.5
						746							
PENNSYLVANIAN	43,33	NEW YORK	NY	PITTSBURGH	PA	9	DAILY	HARRISBURG	PA	MARYSVILLE	PA	CR	6.7
						227		MARYSVILLE	PA	PITCAIRN	PA	CR	0.3
						18		PITCAIRN	PA	JACKS RUN	PA	CR	3.8
						254							
LAKE SHORE LTD	48,49	NEW YORK	NY	CHICAGO	IL	70	DAILY	MO	NY	POUGHKEEPSIE	NY	MNR	0

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
						16		STUYVESANT	NY	RENSSELAER	NY	CR	0
						1		RENSSELAER	NY	W ALBANY	NY	CR	0
						23		W ALBANY	NY	HOFFMANS	NY	AMTK	0
						66		HOFFMANS	NY	UTICA	NY	CR	6.5
						51		UTICA	NY	SYRACUSE	NY	CR	6.5
						6		SYRACUSE	NY	SYRACUSE JCT	NY	CR	6.6
						2		SYRACUSE JCT	NY	SOLVAY	NY	CR	6.6
						42		SOLVAY	NY	LYONS	NY	CR	5.3
						23		LYONS	NY	FAIRPORT	NY	CR	5.3
						11		FAIRPORT	NY	ROCHESTER	NY	CR	4.7
						13		ROCHESTER	NY	CHILI	NY	CR	3.5
						51		CHILI	NY	FRONTIER	NY	CR	5.3
						4		FRONTIER	NY	BUFFALO	NY	CR	-3.3
						2		BUFFALO	NY	DRAW	NY	CR	2.7
						1		DRAW	NY	BUFF CREEK JCT	NY	CR	-3.3
						[illegible]		BUFF CREEK JCT	NY	BUFF SENECA	NY	CR	-3.3
						123		BUFF SENECA	NY	ASHTABULA	OH	CR	0.7
						46		ASHTABULA	OH	QUAKER	OH	CR	5.9
						8		QUAKER	OH	DRAWBRIDGE	OH	CR	-40.5
						43		CLEVELAND	OH	VERMILLION	OH	CR	-24
						43		VERMILLION	OH	OAK HARBOR	OH	CR	-12.1
						24		OAK HARBOR	OH	AIRLINE	OH	CR	9.5
						68		AIRLINE	OH	BUTLER	OH	CR	-6.6
						63		BUTLER	OH	ELKHART	IN	CR	-11.1
						61		ELKHART	IN	PORTER	IN	CR	-7.8
						20		PORTER	IN	CP 501	IN	CR	-0.7
						1		CP 501	IN	INDIANA HARBOR	IN	CR	13.1
						8		INDIANA HARBOR	IN	SOUTH CHICAGO	IL	CR	7.9
						9		SOUTH CHICAGO	IL	ASHLAND AVE	IL	CR	-16
						955							
LAKE SHORE LTD	448,449	BOSTON	MA	ALBANY	NY	18	DAILY	BOSTON BEACON PK	MA	FRAMINGHAM	MA	CR	-0.6
						12		FRAMINGHAM	MA	WESTBORO	MA	CR	-0.9
						11		WESTBORO	MA	WORCESTER	MA	CR	-0.9
						39		WORCESTER	MA	PALMER	MA	CR	-0.4
						15		PALMER	MA	SPRINGFIELD	MA	CR	-0.4
						11		SPRINGFIELD	MA	WESTFIELD	MA	CR	-0.2
						85		WESTFIELD	MA	SELKIRK	NY	CR	-0.2
						191							
CARDINAL	50,51	WASHINGTON	DC	CHICAGO	IL	6	3 DAYS/WK	VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						22		ALEXANDRIA	VA	MANASSAS	VA	NS	2
						142		MANASSAS	VA	MONTVIEW	VA	NS	1.3
						20		RIVANNA JCT	VA	CHARLOTTESVILLE	VA	CSXT	0
						103		CHARLOTTESVILLE	VA	CLIFTON FORGE	VA	CSXT	0
						195		CLIFTON FORGE	VA	ST ALBANS	WV	CSXT	0

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						29		ST ALBANS	WV	BARBOURSVILLE	WV	CSXT	-0.6
						10		BARBOURSVILLE	WV	HUNTINGTON	WV	CSXT	-0.6
						8		HUNTINGTON	WV	KENOVA	WV	CSXT	1.4
						1		KENOVA	WV	BIG SANDY JCT	WV	CSXT	0.7
						6		BIG SANDY JCT	KY	ASHLAND	KY	CSXT	-2
						4		ASHLAND	KY	RUSSELL	KY	CSXT	-2
						19		RUSSELL	KY	N J CABIN	KY	CSXT	-2
						121		N J CABIN	KY	COVINGTON	KY	CSXT	1.1
						6		CINCINNATI	OH	COVINGTON	KY	CSXT	-2.3
						21		CINCINNATI	OH	HAMILTON	OH	CSXT	3
						99		HAMILTON	OH	INDIANAPOLIS	IN	CSXT	2
						3		INDIANAPOLIS	IN	KRAFT	IN	CR	2
						6		KRAFT	IN	AVON	IN	CR	2
						4		AVON	IN	CLERMONT	IN	CR	0.1
						34		CLERMONT	IN	CRAWFORDSVILLE	IN	CR	0.1
						29		LAFAYETTE	IN	CRAWFORDSVILLE	IN	CSXT	0
						30		MONON	IN	LAFAYETTE	IN	CSXT	0
						60		MUNSTER	IN	MONON	IN	CSXT	0
						978							
AUTO TRAIN	52,53	LORTON	VA	SANFORD	FL	49	DAILY	FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						82		S. RICHMOND	VA	WELDON	NC	CSXT	4.6
						37		WELDON	NC	ROCKY MT	NC	CSXT	5.9
						19		ROCKY MT	NC	CONTENTNEA	NC	CSXT	2.5
						22		CONTENTNEA	NC	SELMA	NC	CSXT	2.8
						49		SELMA	NC	FAYETTEVILLE	NC	CSXT	1.2
						31		FAYETTEVILLE	NC	PEMBROKE	NC	CSXT	0.1
						21		PEMBROKE	NC	DILLON	SC	CSXT	1.5
						31		DILLON	SC	FLORENCE	SC	CSXT	3.4
						49		FLORENCE	SC	LANE	SC	CSXT	3.9
						8		LANE	SC	ST STEPHEN	SC	CSXT	3.7
						39		ST STEPHEN	SC	ASHLEY JCT	SC	CSXT	3.8
						54		ASHLEY JCT	SC	YEMASSEE	SC	CSXT	3.9
						55		YEMASSEE	SC	SAVANNAH	GA	CSXT	3.9
						52		SAVANNAH	GA	JESUP	GA	CSXT	5.5
						54		JESUP	GA	FOLKSTON	GA	CSXT	2.1
						22		FOLKSTON	GA	CALLAHAN	FL	CSXT	0.7
						16		CALLAHAN	FL	JACKSONVILLE	FL	CSXT	-0.3
						54		JACKSONVILLE	FL	PALATKA	FL	CSXT	0
						68		PALATKA	FL	SANFORD	FL	CSXT	0
						873							
VERMONTER	55,56	ST. ALBANS	VT	WASHINGTON	DC	83	DAILY	PALMER	MA	SPRINGFIELD	MA	CR	-0.44
						83		BRIDGEPORT	CT	NEW HAVEN	CT	CDOT	0
						16		NORWALK	CT	BRIDGEPORT	CT	CDOT	0

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						25		NEW ROCHELLE	NY	NORWALK	CT	CDOT	0
						7		LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						396							
MAPLE LEAF	63,64	NEW YORK	NY	TORONTO	ON	70	DAILY	MO	NY	POUGHKEEPSIE	NY	MNR	0
						50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
						16		STUYVESANT	NY	RENSSELAER	NY	CR	0
						4		RENSSELAER	NY	W ALBANY	NY	CR	0
						23		W ALBANY	NY	HOFFMANS	NY	AMTK	0
						66		HOFFMANS	NY	UTICA	NY	CR	6.5
						51		UTICA	NY	SYRACUSE	NY	CR	6.5
						6		SYRACUSE	NY	SYRACUSE JCT	NY	CR	6.6
						2		SYRACUSE JCT	NY	SOLVAY	NY	CR	6.6
						42		SOLVAY	NY	LYONS	NY	CR	5.3
						23		LYONS	NY	FAIRPORT	NY	CR	5.3
						11		FAIRPORT	NY	ROCHESTER	NY	CR	4.7
						13		ROCHESTER	NY	CHILI	NY	CR	3.5
						51		CHILI	NY	FRONTIER	NY	CR	5.3
						4		FRONTIER	NY	BUFFALO	NY	CR	-3.3
						7		BUFFALO	NY	BLACK ROCK	NY	CR	0
						21		BLACK ROCK	NY	NIAGARA FALLS	NY	CR	-1
						460							
ADIRONDACK	68,69, 70,71	MONTREAL	PQ	NEW YORK	NY	70	6 DAYS/WK	MO	NY	POUGHKEEPSIE	NY	MNR	0
						50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
						16		STUYVESANT	NY	RENSSELAER	NY	CR	0
						4		RENSSELAER	NY	W ALBANY	NY	CR	0
						140							
PIEDMONT	73,74	RALEIGH	NC	CHARLOTTE	NC	83	DAILY	GREENSBORO	NC	RALEIGH YARD	NC	NS	0.1
						41		GREENSBORO	NC	LINWOOD	NC	NS	-1.9
						9		LINWOOD	NC	SALISBURY	NS	NS	-1.4
						50		SALISBURY	NS	CHARLOTTE	NS	NS	-3
						183							
JAMES RIVER	75	WASHINGTON	DC	NEWPORT NEWS	VA	6	1 DAY/WK	VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
	78	RICHMOND	VA	NEWPORT NEWS	VA	49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						80		HAMPTON	VA	RIVANNA JCT	VA	CSXT	-1
						196							
CAROLINIAN	79,80	NEW YORK	NY	CHARLOTTE	NC	7	DAILY	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						82		S. RICHMOND	VA	WELDON	NC	CSXT	4.6
						37		WELDON	NC	ROCKY MT	NC	CSXT	5.[illegible]
						19		ROCKY MT	NC	CONTENTNEA	NC	CSXT	2.5
						22		CONTENTNEA	NC	SELMA	NC	CSXT	2.8
						50		RALEIGH JCT	NC	GOLDSBORO	NC	NS	0
						83		GREENSBORO	NC	RALEIGH YARD	NC	NS	0.1
						41		GREENSBORO	NC	LINWOOD	NC	NS	-1.9
						9		LINWOOD	NC	SALISBURY	NS	NS	-1.4
						50		SALISBURY	NS	CHARLOTTE	NS	NS	-3
						698							
CHARTER OAK	85,86	SPRINGFIELD	MA	RICHMOND	VA	16	DAILY	BRIDGEPORT	CT	NEW HAVEN	CT	CDOT	0
						16		NORWALK	CT	BRIDGEPORT	CT	CDOT	0
						25		NEW ROCHELLE	NY	NORWALK	CT	CDOT	0
						7		LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						362							
VIRGINIAN	84	RICHMOND	VA	BOSTON	MA	9	6 DAYS/WK	READVILLE	MA	BOSTON	MA	MBTA	0
	93	BOSTON	MA	RICHMOND	VA	15	4 DAYS/WK	MANSFIELD	MA	READVILLE	MA	MBTA	0

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TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						7		ATTLEBORO	MA	MANSFIELD	MA	MBTA	0
						6		MA/RI	RI	ATTLEBORO	MA	MBTA	0
						16		BRIDGEPORT	CT	NEW HAVEN	CT	CDOT	0
						16		NORWALK	CT	BRIDGEPORT	CT	CDOT	0
						25		NEW ROCHELLE	NY	NORWALK	CT	CDOT	0
						7		LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						399							
SILVER PALM	89,90	MIAMI	FL	NEW YORK	NY	7	DAILY	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						82		S. RICHMOND	VA	WELDON	NC	CSXT	4.6
						37		WELDON	NC	ROCKY MT	NC	CSXT	5.9
						19		ROCKY MT	NC	CONTENTNEA	NC	CSXT	2.5
						22		CONTENTNEA	NC	SELMA	NC	CSXT	2.8
						49		SELMA	NC	FAYETTEVILLE	NC	CSXT	1.2
						31		FAYETTEVILLE	NC	PEMBROKE	NC	CSXT	0.1
						21		PEMBROKE	NC	DILLON	SC	CSXT	1.5
						31		DILLON	SC	FLORENCE	SC	CSXT	3.4
						49		FLORENCE	SC	LANE	SC	CSXT	3.9
						8		LANE	SC	ST STEPHEN	SC	CSXT	3.7
						39		ST STEPHEN	SC	ASHLEY JCT	SC	CSXT	3.8
						54		ASHLEY JCT	SC	YEMASSEE	SC	CSXT	3.9
						55		YEMASSEE	SC	SAVANNAH	GA	CSXT	3.9
						52		SAVANNAH	GA	JESUP	GA	CSXT	5.5

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						54		JESUP	GA	FOLKSTON	GA	CSXT	2.1
						22		FOLKSTON	GA	CALLAHAN	FL	CSXT	0.7
						16		CALLAHAN	FL	JACKSONVILLE	FL	CSXT	-0.3
						18		JACKSONVILLE	FL	BALDWIN	FL	CSXT	1.4
						26		BALDWIN	FL	STARKE	FL	CSXT	0.6
						126		STARKE	FL	VITIS	FL	CSXT	0
						19		VITIS	FL	LAKELAND	FL	CSXT	0
						4		LAKELAND	FL	WINSTON	FL	CSXT	1.3
						5		WINSTON	FL	PLANT CITY	FL	CSXT	1.3
						17		PLANT CITY	FL	UCETA YARD	FL	CSXT	0.5
						12		AUBURNDALE	FL	LAKELAND	FL	CSXT	1.4
						47		AUBURNDALE	FL	SEBRING	FL	CSXT	0
						103		SEBRING	FL	W. PALM BCH	FL	CSXT	0
						1323							
SILVER STAR	91,92	NEW YORK	NY	MIAMI	FL	7	DAILY	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						82		S. RICHMOND	VA	WELDON	NC	CSXT	4.6
						37		WELDON	NC	ROCKY MT	NC	CSXT	5.9
						19		ROCKY MT	NC	CONTENTNEA	NC	CSXT	2.5
						22		CONTENTNEA	NC	SELMA	NC	CSXT	2.8
						50		RALEIGH JCT	NC	GOLDSBORO	NC	NS	0
						97		RALEIGH	NC	HAMLET	NC	CSXT	0
						108		HAMLET	NC	MCBEE	SC	CSXT	-0.1
						108		MCBEE	SC	COLUMBIA	SC	CSXT	0
						76		COLUMBIA	SC	FAIRFAX	SC	CSXT	-0.2
						62		FAIRFAX	SC	SAVANNAH	GA	CSXT	-0.8
						52		SAVANNAH	GA	JESUP	GA	CSXT	5.5
						54		JESUP	GA	FOLKSTON	GA	CSXT	2.1
						22		FOLKSTON	GA	CALLAHAN	FL	CSXT	0.7
						16		CALLAHAN	FL	JACKSONVILLE	FL	CSXT	-0.3
						54		JACKSONVILLE	FL	PALATKA	FL	CSXT	0
						68		PALATKA	FL	SANFORD	FL	CSXT	0
						22		SANFORD	FL	ORLANDO	FL	CSXT	0
						51		ORLANDO	FL	AUBURNDALE	FL	CSXT	1.4
						47		AUBURNDALE	FL	SEBRING	FL	CSXT	0

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CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						103		SEBRING	FL	W. PALM BCH	FL	CSXT	0
						1455							
OLD DOMINON	94,95	NEWPORT NEWS	VA	BOSTON	MA	9	6 DAYS/WK	READVILLE	MA	BOSTON	MA	MBTA	0
						15		MANSFIELD	MA	READVILLE	MA	MBTA	0
						7		ATTLEBORO	MA	MANSFIELD	MA	MBTA	0
						6		MA/RI	RI	ATTLEBORO	MA	MBTA	0
						16		BRIDGEPORT	CT	NEW HAVEN	CT	CDOT	0
						16		NORWALK	CT	BRIDGEPORT	CT	CDOT	0
						25		NEW ROCHELLE	NY	NORWALK	CT	CDOT	0
						7		LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						80		HAMPTON	VA	RIVANNA JCT	VA	CSXT	-1
						479							
TIDEWATER	96	NEWPORT NEWS	VA	NEW YORK	NY	7	1 DAY/WK	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						80		HAMPTON	VA	RIVANNA JCT	VA	CSXT	-1
						385							
SILVER METEOR	97,98	NEW YORK	NY	MIAMI	FL	7	DAILY	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						82		S. RICHMOND	VA	WELDON	NC	CSXT	4.6
						37		WELDON	NC	ROCKY MT	NC	CSXT	5.9
						19		ROCKY MT	NC	CONTENTNEA	NC	CSXT	2.5
						22		CONTENTNEA	NC	SELMA	NC	CSXT	2.8
						49		SELMA	NC	FAYETTEVILLE	NC	CSXT	1.2
						31		FAYETTEVILLE	NC	PEMBROKE	NC	CSXT	0.1
						21		PEMBROKE	NC	DILLON	SC	CSXT	1.5
						31		DILLON	SC	FLORENCE	SC	CSXT	3.4
						49		FLORENCE	SC	LANE	SC	CSXT	3.9
						8		LANE	SC	ST STEPHEN	SC	CSXT	3.7
						39		ST STEPHEN	SC	ASHLEY JCT	SC	CSXT	3.8
						54		ASHLEY JCT	SC	YEMASSEE	SC	CSXT	3.9
						55		YEMASSEE	SC	SAVANNAH	GA	CSXT	3.9
						52		SAVANNAH	GA	JESUP	GA	CSXT	5.5
						54		JESUP	GA	FOLKSTON	GA	CSXT	2.1
						22		FOLKSTON	GA	CALLAHAN	FL	CSXT	0.7
						16		CALLAHAN	FL	JACKSONVILLE	FL	CSXT	-0.3
						54		JACKSONVILLE	FL	PALATKA	FL	CSXT	0
						68		PALATKA	FL	SANFORD	FL	CSXT	0
						22		SANFORD	FL	ORLANDO	FL	CSXT	0
						51		ORLANDO	FL	AUBURNDALE	FL	CSXT	1.4
						47		AUBURNDALE	FL	SEBRING	FL	CSXT	0
						103		SEBRING	FL	W. PALM BCH	FL	CSXT	0
						1291							
VIRGINIAN	99	BOSTON	MA	NEWPORT NEWS	VA	9	2 DAYS/WK	READVILLE	MA	BOSTON	MA	MBTA	0
						15		MANSFIELD	MA	READVILLE	MA	MBTA	0
						7		ATTLEBORO	MA	MANSFIELD	MA	MBTA	0
						6		MA/RI	RI	ATTLEBORO	MA	MBTA	0
						16		BRIDGEPORT	CT	NEW HAVEN	CT	CDOT	0
						16		NORWALK	CT	BRIDGEPORT	CT	CDOT	0
						25		NEW ROCHELLE	NY	NORWALK	CT	CDOT	0
						7		LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						80		HAMPTON	VA	RIVANNA JCT	VA	CSXT	-1
						479							
GOTHAM LTD	194	NEWPORT NEWS	VA	NEW YORK	NY	7	1 DAY/WK	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						80		HAMPTON	VA	RIVANNA JCT	VA	CSXT	-1
						385							
TIDEWATER	195	NEW YORK	NY	RICHMOND	VA	7	1 DAY/WK	LANE	NJ	UNION	NJ	AMTK	7.6
						21		UNION	NJ	MIDWAY	NJ	AMTK	7.6
						17		MIDWAY	NJ	MORRISVILLE	PA	AMTK	7.6
						29		MORRISVILLE	PA	ZOO	PA	AMTK	3.7
						25		ARSENAL	PA	DAVIS	DE	AMTK	8.2
						21		DAVIS	DE	PERRYVILLE	MD	AMTK	7.9
						32		PERRYVILLE	MD	BALTIMORE	MD	AMTK	1.3
						29		BALTIMORE	MD	BOWIE	MD	AMTK	5.3
						8		BOWIE	MD	LANDOVER	MD	AMTK	6.1
						6		VIRGINIA AVE	DC	POTOMAC YARD	DC	CR	10.7
						49		FREDERICKSBURG	VA	POTOMAC YARD	VA	CSXT	7.1
						37		DOSWELL	VA	FREDERICKSBURG	VA	CSXT	6.6
						24		RICHMOND	VA	DOSWELL	VA	CSXT	7
						305							
HUDSON VALLEY SERVICE	242,244	ALBANY	NY	NEW YORK	NY	70	5 DAYS/WK	MO	NY	POUGHKEEPSIE	NY	MNR	0
	248,250					50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
	251,254					16		STUYVESANT	NY	RENSSELAER	NY	CR	0
	257,265					136							
	267,271												
	277												

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
HUDSON VALLEY EXPRESS	246,259	SCHENECTADY	NY	NEW YORK	NY	70	5 DAYS/WK	MO	NY	POUGHKEEPSIE	NY	MNR	0
						50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
						16		STUYVESANT	NY	RENSSELAER	NY	CR	0
						4		RENSSELAER	NY	W ALBANY	NY	CR	0
						140							
MOHAWK	281,284	NEW YORK	NY	NIAGARIA FALLS	NY	70	3 DAYS/WK	MO	NY	POUGHKEEPSIE	NY	MNR	0
						50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
						16		STUYVESANT	NY	RENSSELAER	NY	CR	0
						4		RENSSELAER	NY	W ALBANY	NY	CR	0
						23		W ALBANY	NY	HOFFMANS	NY	AMTK	0
						66		HOFFMANS	NY	UTICA	NY	CR	6.5
						51		UTICA	NY	SYRACUSE	NY	CR	6.5
						6		SYRACUSE	NY	SYRACUSE JCT	NY	CR	6.6
						2		SYRACUSE JCT	NY	SOLVAY	NY	CR	6.6
						42		SOLVAY	NY	LYONS	NY	CR	5.3
						23		LYONS	NY	FAIRPORT	NY	CR	5.3
						11		FAIRPORT	NY	ROCHESTER	NY	CR	4.7
						13		ROCHESTER	NY	CHILI	NY	CR	3.5
						51		CHILI	NY	FRONTIER	NY	CR	5.3
						4		FRONTIER	NY	BUFFALO	NY	CR	-3.3
						7		BUFFALO	NY	BLACK ROCK	NY	CR	0
						21		BLACK ROCK	NY	NIAGARA FALLS	NY	CR	-1
						460							
EMPIRE STATE EXPRESS	283,286	NEW YORK	NY	NIAGARIA FALLS	NY	70	DAILY	MO	NY	POUGHKEEPSIE	NY	MNR	0
						50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
						16		STUYVESANT	NY	RENSSELAER	NY	CR	0
						4		RENSSELAER	NY	W ALBANY	NY	CR	0
						23		W ALBANY	NY	HOFFMANS	NY	AMTK	0
						66		HOFFMANS	NY	UTICA	NY	CR	6.5
						51		UTICA	NY	SYRACUSE	NY	CR	6.5
						6		SYRACUSE	NY	SYRACUSE JCT	NY	CR	6.6
						2		SYRACUSE JCT	NY	SOLVAY	NY	CR	6.6
						42		SOLVAY	NY	LYONS	NY	CR	5.3
						23		LYONS	NY	FAIRPORT	NY	CR	5.3
						11		FAIRPORT	NY	ROCHESTER	NY	CR	4.7
						13		ROCHESTER	NY	CHILI	NY	CR	3.5
						51		CHILI	NY	FRONTIER	NY	CR	5.3
						4		FRONTIER	NY	BUFFALO	NY	CR	-3.3
						7		BUFFALO	NY	BLACK ROCK	NY	CR	0
						21		BLACK ROCK	NY	NIAGARA FALLS	NY	CR	-1
						460							
WATER LEVEL EXPRESS	287, 288	NEW YORK	NY	NIAGARIA FALLS	NY	70	1 DAY/WK	MO	NY	POUGHKEEPSIE	NY	MNR	0
						50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
						16		STUYVESANT	NY	RENSSELAER	NY	CR	0

Table 1-39

CURRENT AMTRAK TRAINS OPERATING OVER CSX, NS AND CONRAIL LINE SEGMENTS

TRAIN NAME	TRAIN NUMBER	SERVICE BETWEEN CITY	ST	CITY	ST	MILES	FREQUENCY	SEGMENTS FROM STATION	ST	TO STATION	ST	ROAD	NET CHANGE FRT TRNS PER DAY
						4		RENSSELAER	NY	W ALBANY	NY	CR	0
						23		W ALBANY	NY	HOFFMANS	NY	AMTK	0
						66		HOFFMANS	NY	UTICA	NY	CR	6.5
						51		UTICA	NY	SYRACUSE	NY	CR	6.5
						6		SYRACUSE	NY	SYRACUSE JCT	NY	CR	6.6
						2		SYRACUSE JCT	NY	SOLVAY	NY	CR	6.6
						42		SOLVAY	NY	LYONS	NY	CR	5.3
						23		LYONS	NY	FAIRPORT	NY	CR	5.3
						11		FAIRPORT	NY	ROCHESTER	NY	CR	4.7
						13		ROCHESTER	NY	CHILI	NY	CR	3.5
						51		CHILI	NY	FRONTIER	NY	CR	5.3
						4		FRONTIER	NY	BUFFALO	NY	CR	-3.3
						7		BUFFALO	NY	BLACK ROCK	NY	CR	0
						21		BLACK ROCK	NY	NIAGARA FALLS	NY	CR	-1
						460							
ONEIDA	289	NEW YORK	NY	SYRACUSE	NY	70	1 DAY/WK	MO	NY	POUGHKEEPSIE	NY	MNR	0
						50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
						16		STUYVESANT	NY	RENSSELAER	NY	CR	0
						4		RENSSELAER	NY	W ALBANY	NY	CR	0
						23		W ALBANY	NY	HOFFMANS	NY	AMTK	0
						66		HOFFMANS	NY	UTICA	NY	CR	6.5
						51		UTICA	NY	SYRACUSE	NY	CR	6.5
						280							
ETHAN ALLEN	290,291	RUTLAND	VT	NEW YORK	NY	70	1 DAY/WK	MO	NY	POUGHKEEPSIE	NY	MNR	0
EXPRESS	293,294					50		POUGHKEEPSIE	NY	STUYVESANT	NY	CR	0
	296					16		STUYVESANT	NY	RENSSELAER	NY	CR	0
						4		RENSSELAER	NY	W ALBANY	NY	CR	0
						140							
WOLVERINE, INTERNATIONAL	350, 351	CHICAGO	IL	DETROIT	MI	74	DAILY	WEST DETROIT	MI	JACKSON	MI	CR	9.2
LAKE CITIES, TWILIGHT LTD	352, 353					67		JACKSON	MI	KALAMAZOO	MI	CR	6.6
	354, 355					20		PORTER	IN	CP 501	IN	CR	-0.7
	364, 365					1		CP 501	IN	INDIANA HARBOR	IN	CR	13.1
	367					8		INDIANA HARBOR	IN	SOUTH CHICAGO	IL	CR	7.9
						9		SOUTH CHICAGO	IL	ASHLAND AVE	IL	CR	-16
						179							
PERE MARQUETTE	370,371	GRAND RAPIDS	MI	CHICAGO	IL	26	DAILY	GRAND RAPIDS	MI	WAVERLY	MI	CSXT	-3.7
						110		WAVERLY	MI	PORTER	IN	CSXT	-2
						136							

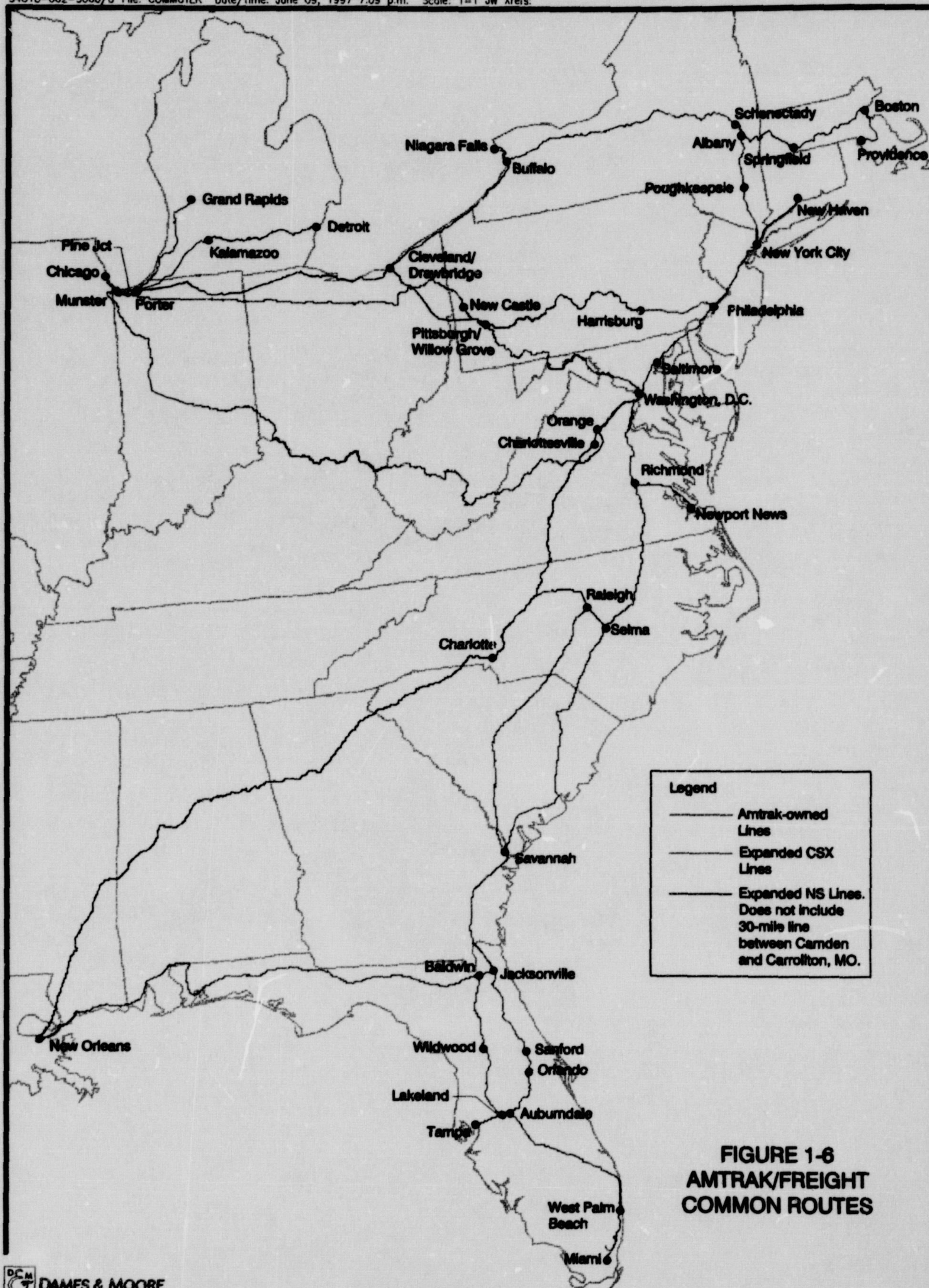
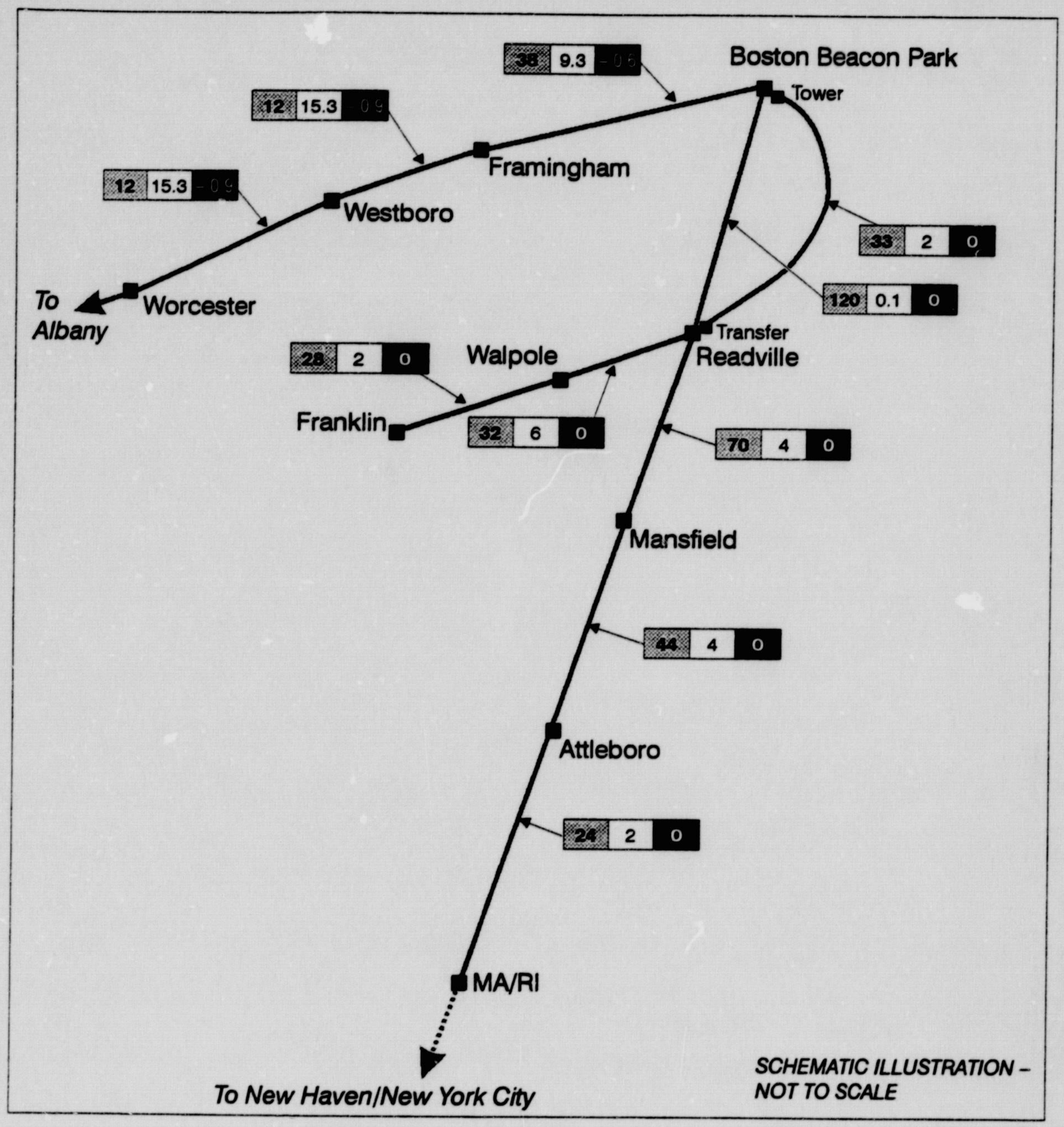


FIGURE 1-6
AMTRAK/FREIGHT
COMMON ROUTES



LEGEND:

116 | 2 | 8.2

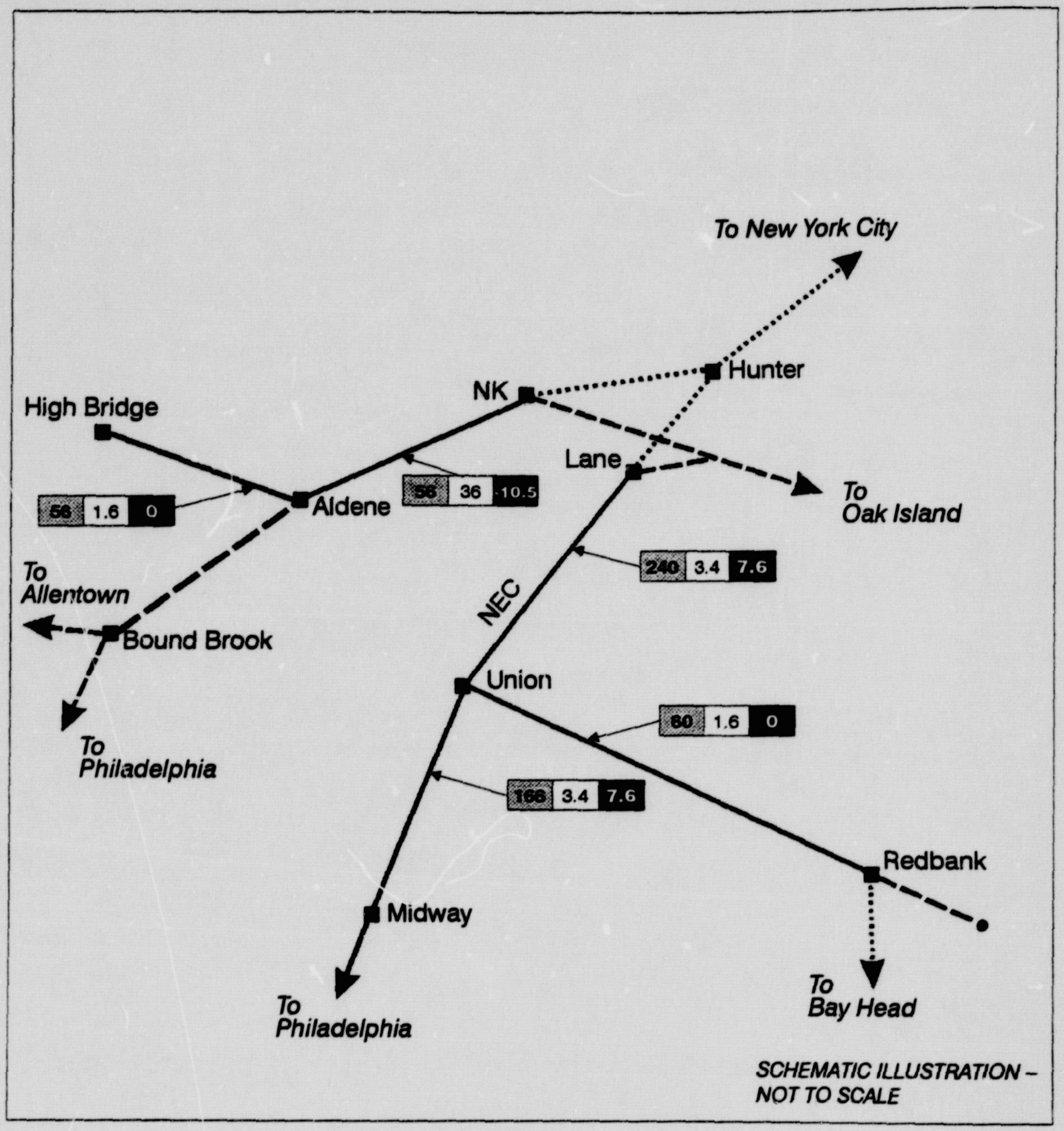
- 116 ← PASSENGER TRAFFIC
- 2 ← CURRENT FREIGHT TRAFFIC
- 8.2 ← CHANGE IN FREIGHT TRAFFIC

ALL TRAFFIC IN TRAINS/DAY

··········· PASSENGER TRAFFIC ONLY

FIGURE 1-7
BOSTON AREA – COMMUTER/FREIGHT COMMON ROUTES

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY



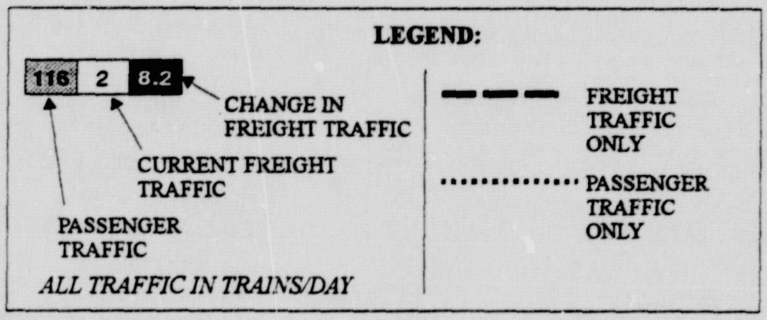


FIGURE 1-8
NORTHERN NEW JERSEY AREA (NEC AND NJT NEWARK AREA SERVICE) - COMMUTER AND AMTRAK/FREIGHT COMMON ROUTES

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY

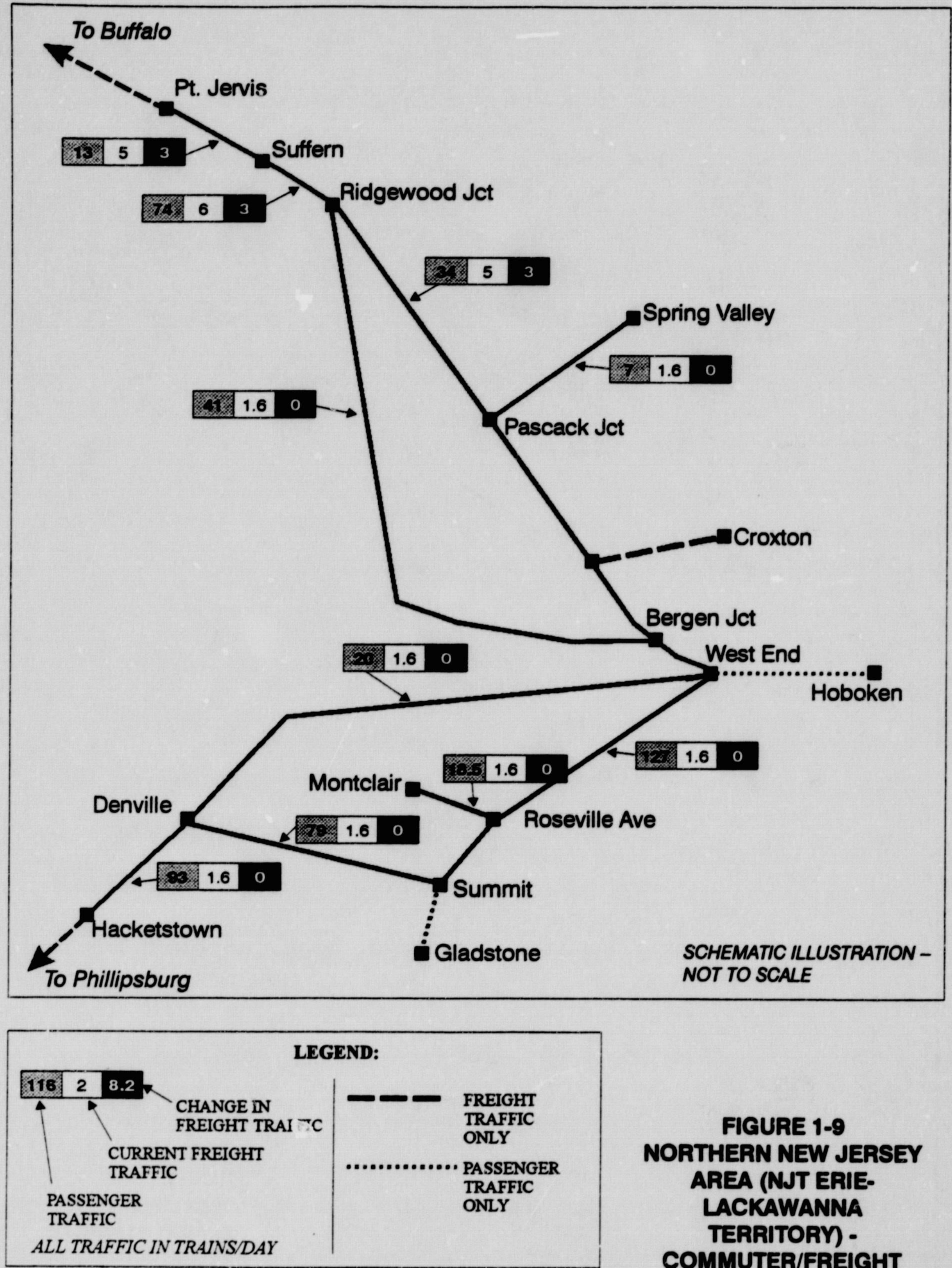


FIGURE 1-9
NORTHERN NEW JERSEY AREA (NJT ERIE-LACKAWANNA TERRITORY) - COMMUTER/FREIGHT COMMON ROUTES

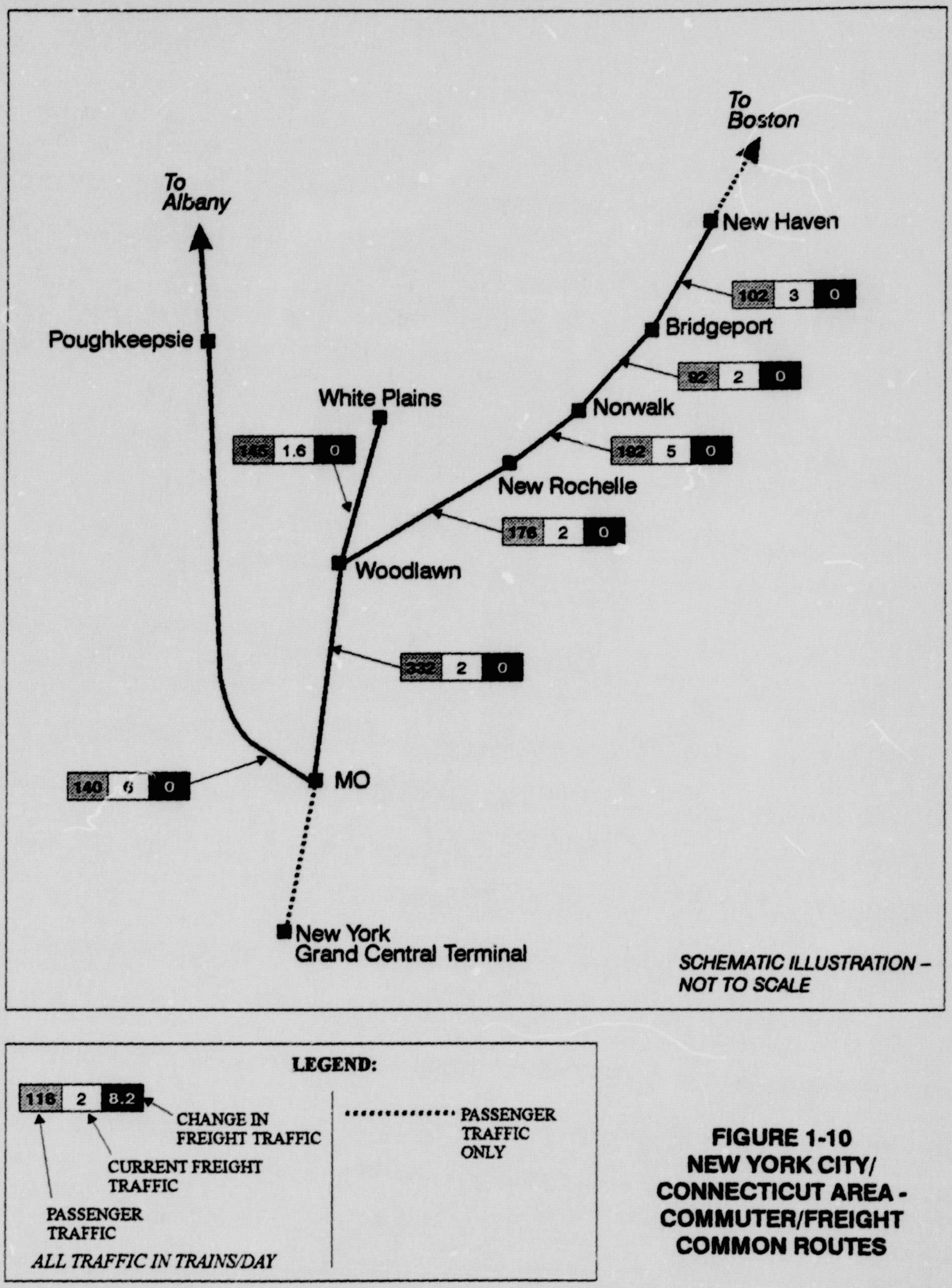


FIGURE 1-10
NEW YORK CITY/ CONNECTICUT AREA - COMMUTER/FREIGHT COMMON ROUTES

DAMES & MOORE

04818-002-5060/68 [007] 6/6/97 SCHEM08.CDR

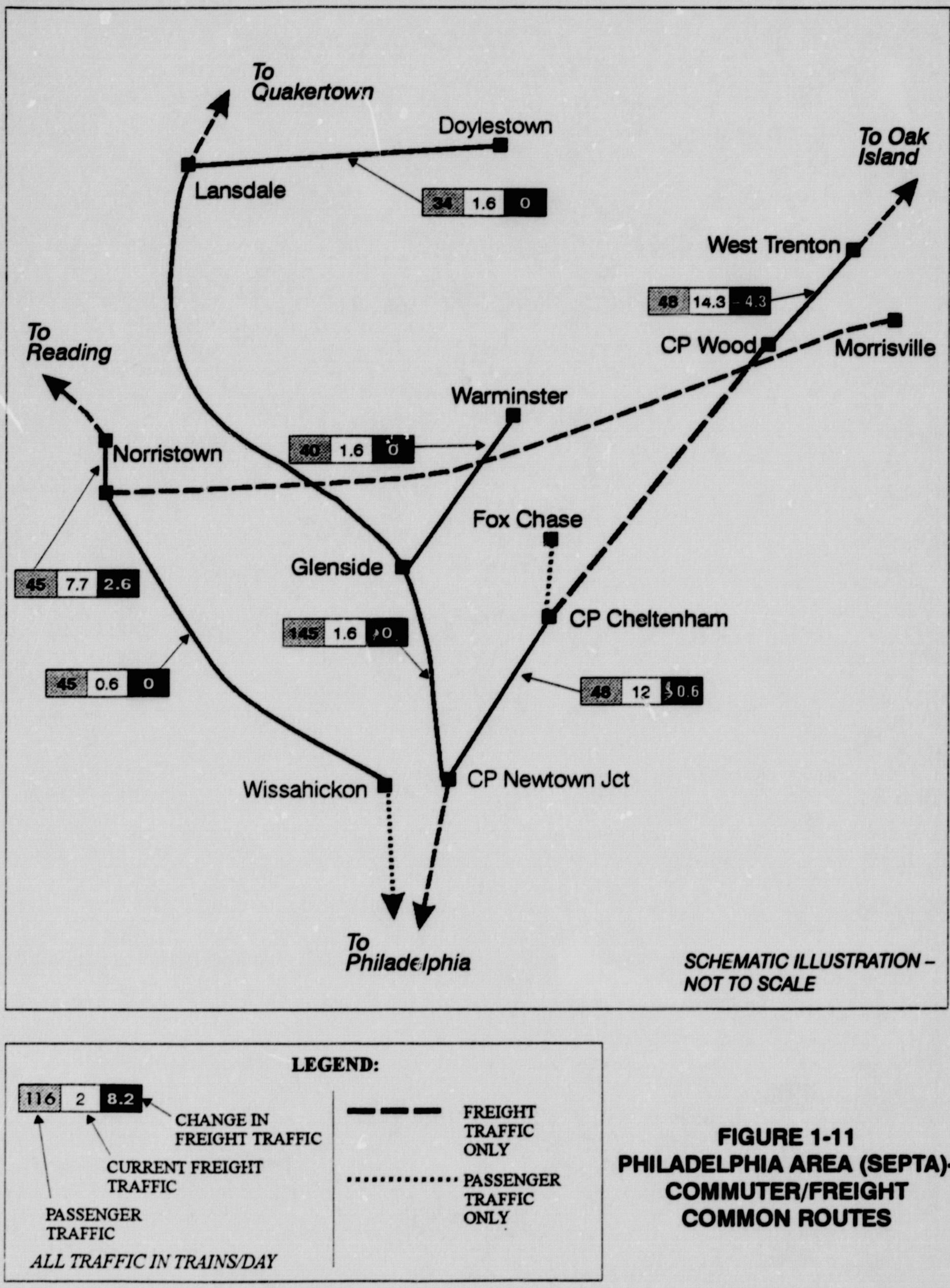
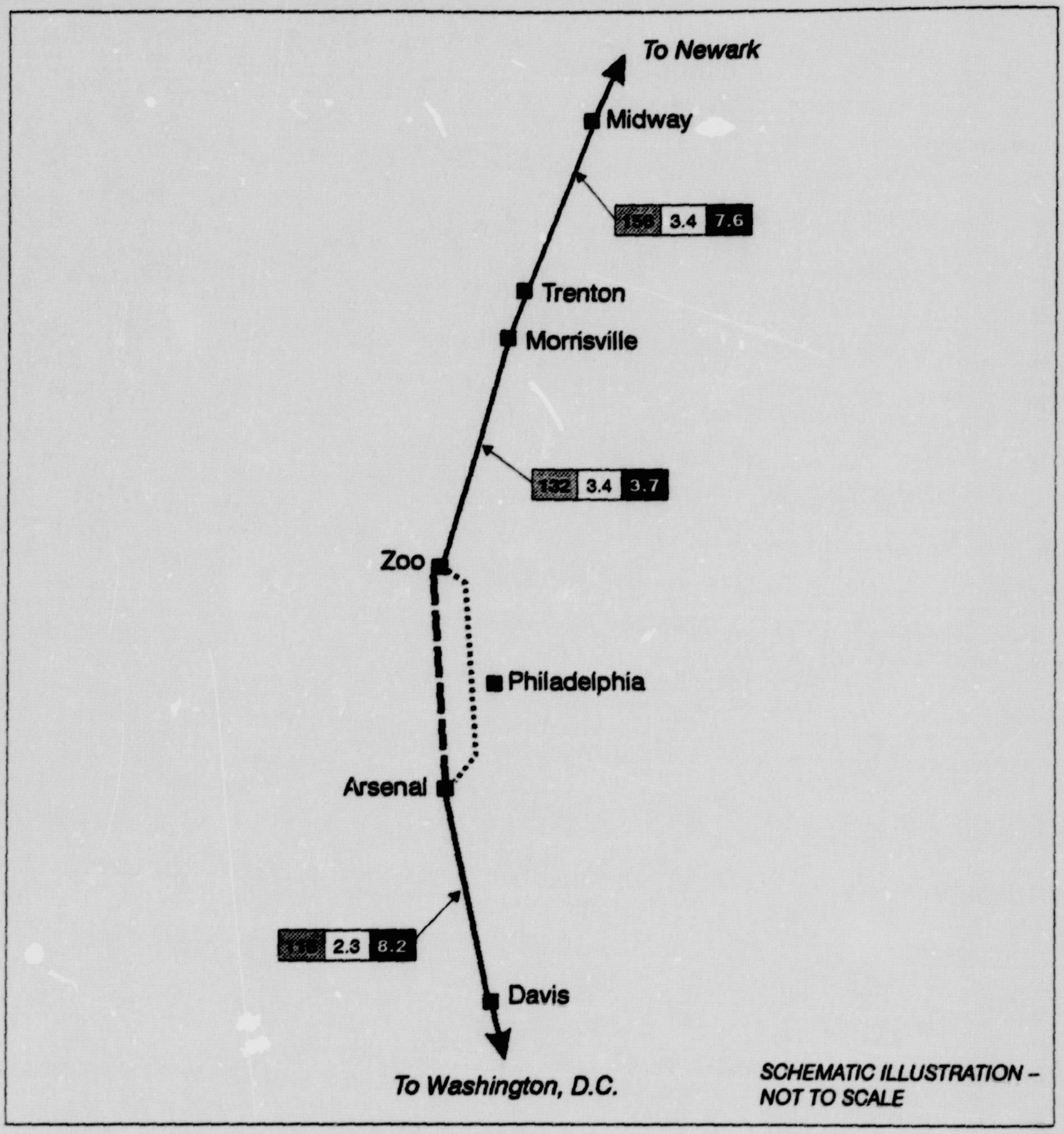


FIGURE 1-11
PHILADELPHIA AREA (SEPTA)-COMMUTER/FREIGHT COMMON ROUTES

DAMES & MOORE



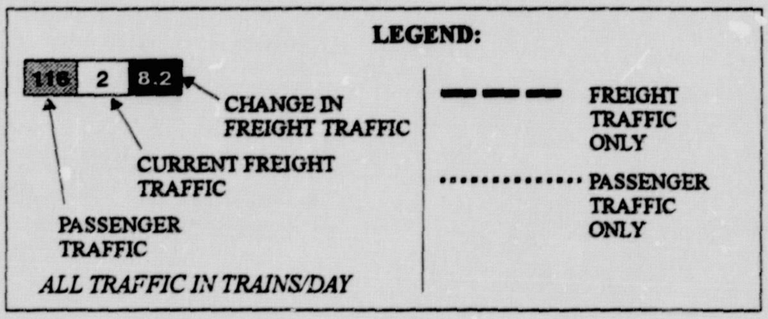


FIGURE 1-12
PHILADELPHIA AREA (NEC) - COMMUTER AND AMTRAK/ FREIGHT COMMON ROUTES

DAMES & MOORE

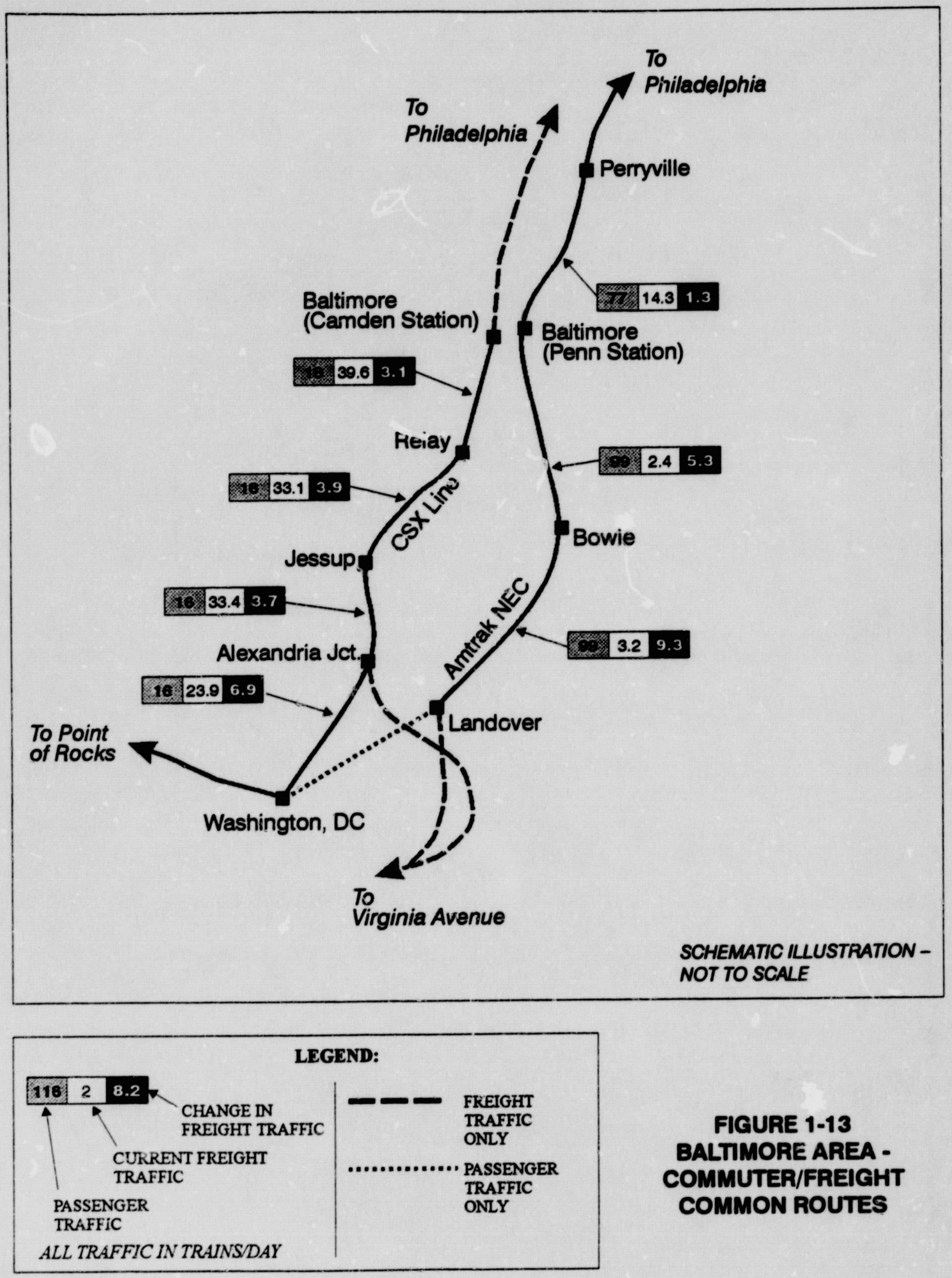


FIGURE 1-13
BALTIMORE AREA - COMMUTER/FREIGHT COMMON ROUTES

DAMES & MOORE

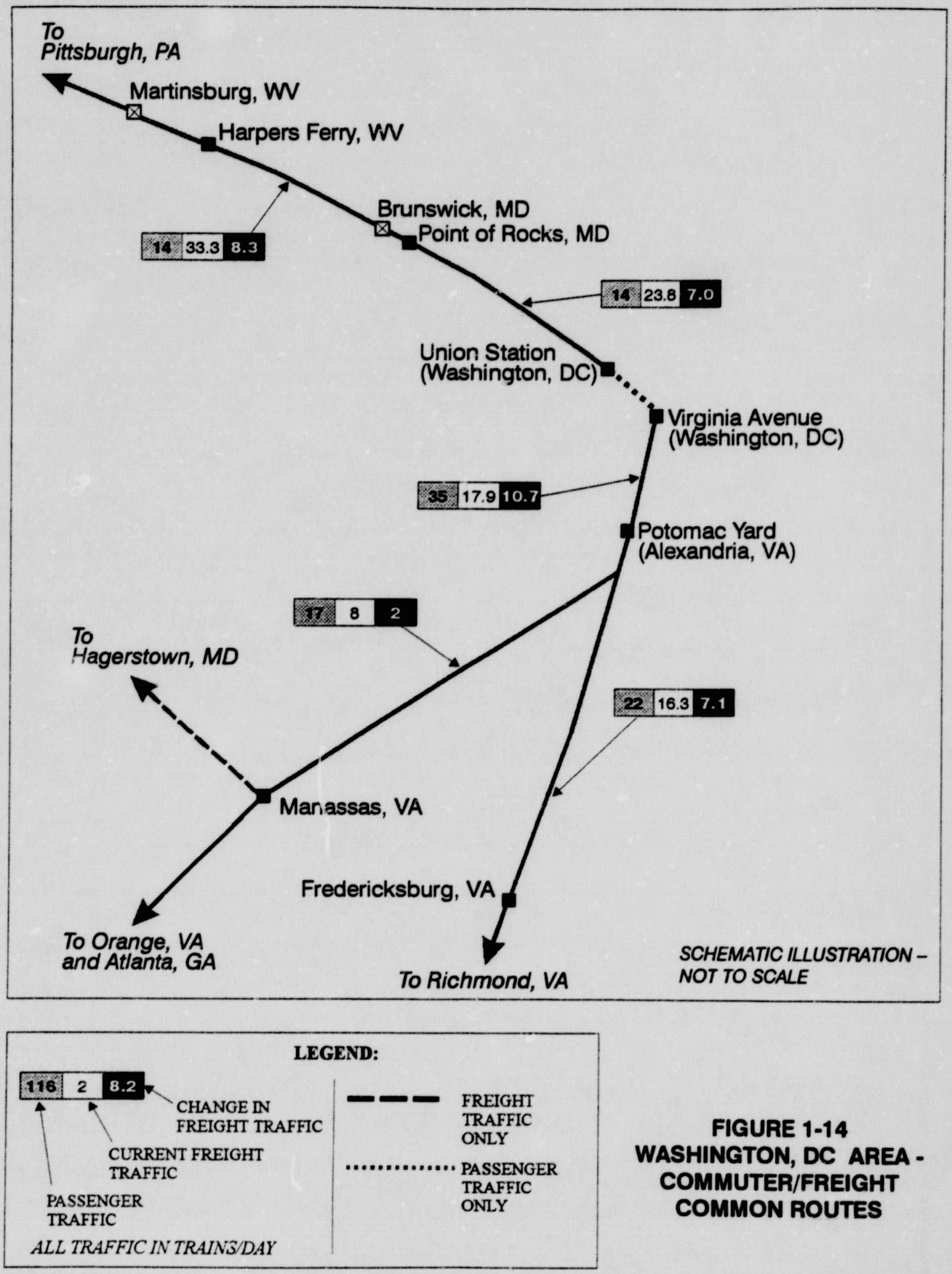
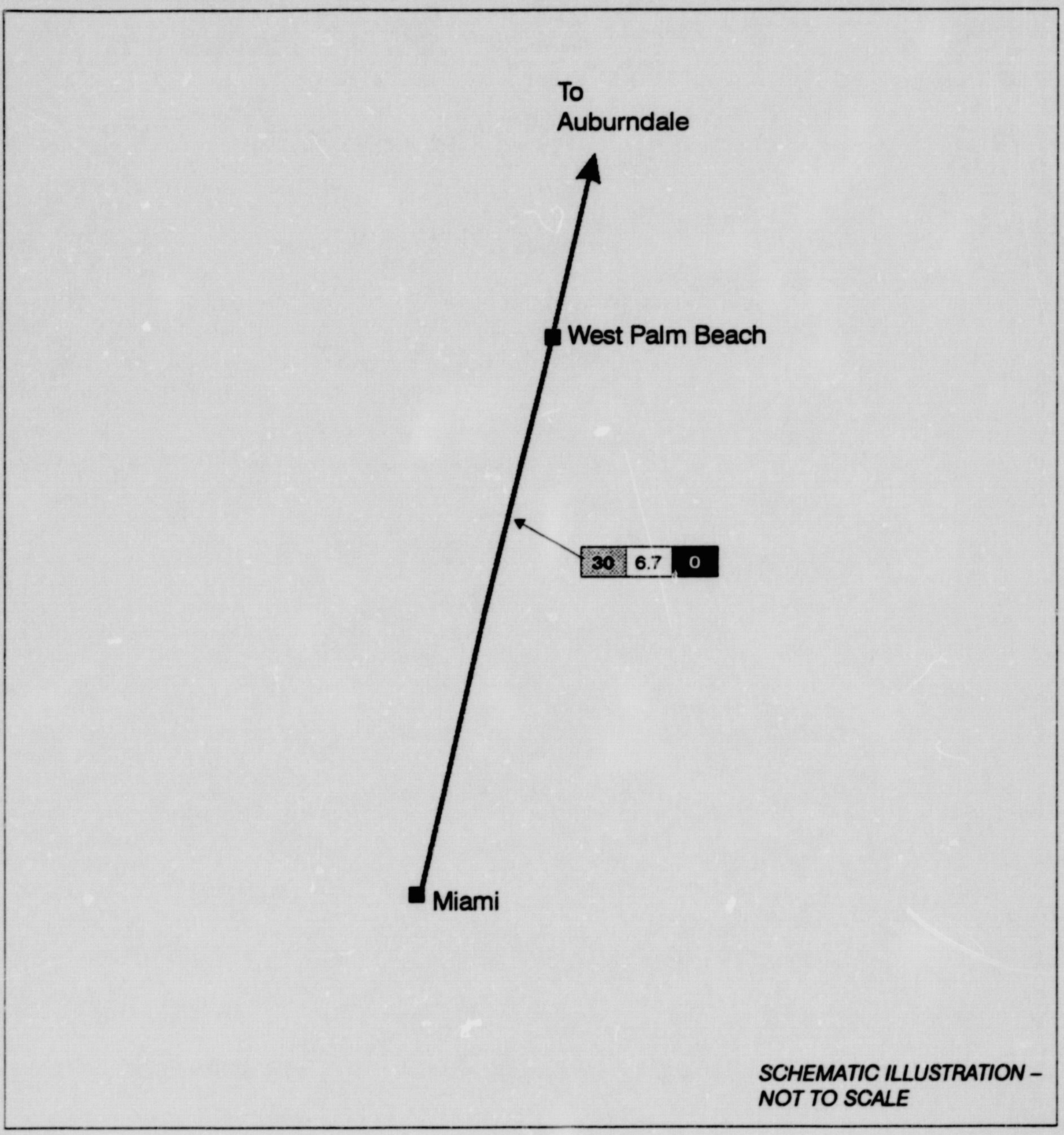


FIGURE 1-14
WASHINGTON, DC AREA - COMMUTER/FREIGHT COMMON ROUTES

DAMES & MOORE
A DAMES & MOORE GROUP COMPANY



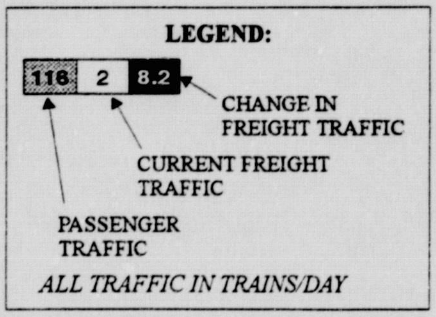
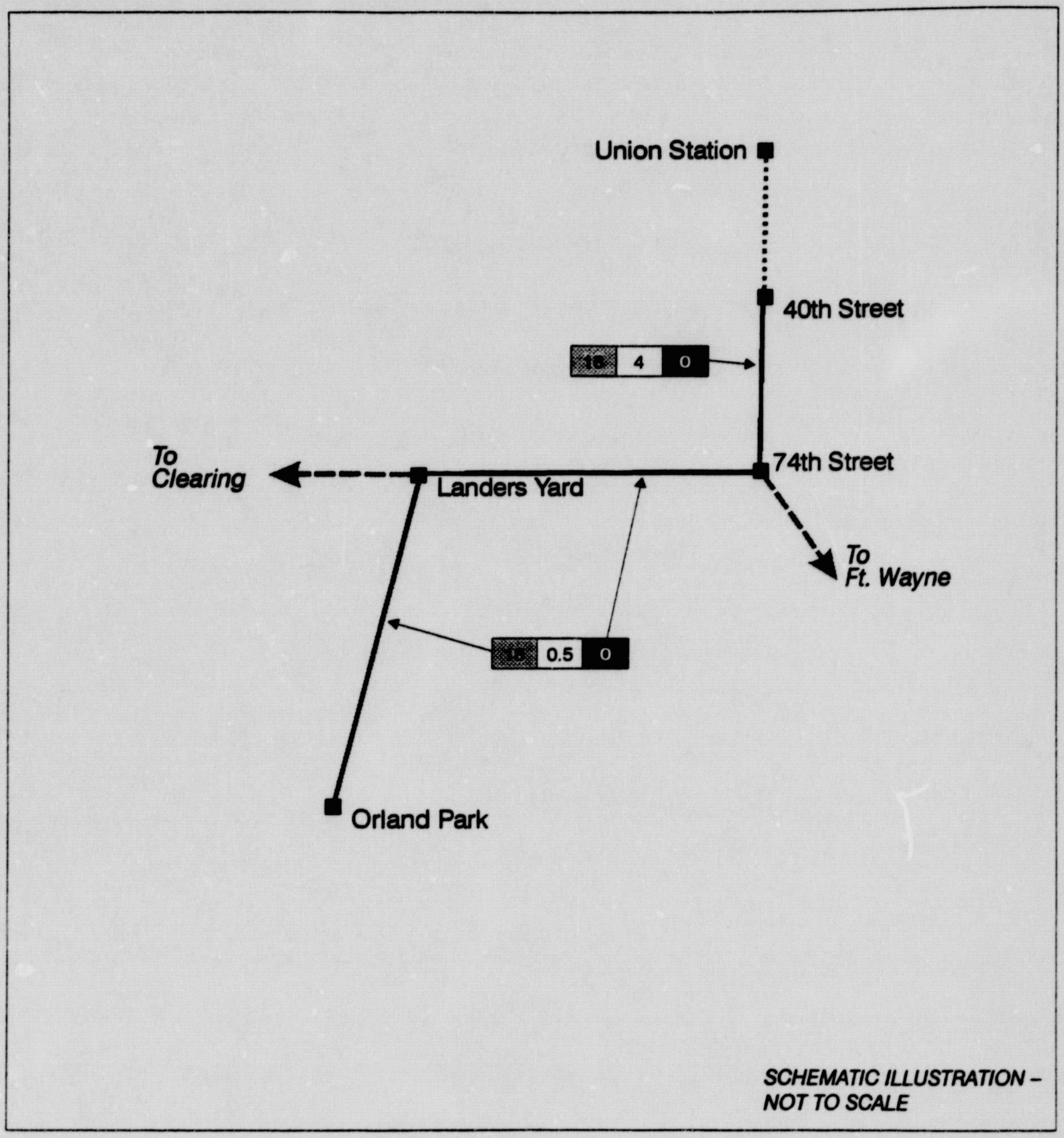


FIGURE 1-15
MIAMI AREA – COMMUTER/FREIGHT COMMON ROUTES

DAMES & MOORE



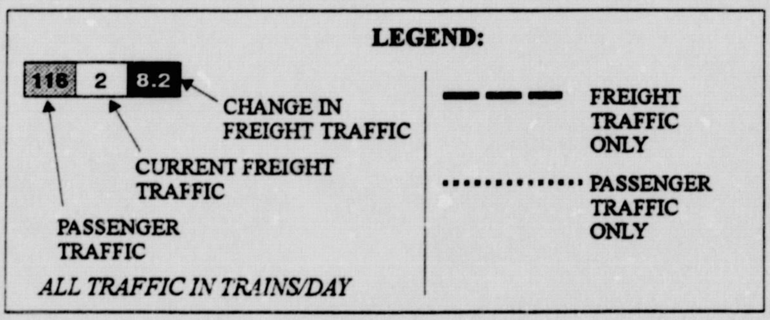


FIGURE 1-16
CHICAGO AREA - COMMUTER/FREIGHT COMMON ROUTES

DAMES & MOORE

APPENDIX A

AIR QUALITY METHODOLOGY

AIR QUALITY METHODOLOGY

The air quality methodologies contained in this section will be applied to CSX, NS, and the Shared Areas operating plans to calculate the air quality impacts from the proposed acquisition. Analyses will be conducted for rail line segments, rail yards, and intermodal facilities with activity increases above the following STB thresholds, as specified in 49 CFR 1105.7(e):

Activity	Threshold
Attainment Areas (49 CFR 1105.7(e)(5)(i))	
Rail line segment	Increase of 8 trains/day or 100% as measured in gross tons miles annually
Rail Yard	100% increase as measured in carload activity
Intermodal Facility	Increase in truck traffic greater than 10% of average daily traffic or 50 trucks/day
Nonattainment Areas and Class I Areas (49 CFR 1105.7(e)(5)(ii))	
Rail line segment	Increase of 3 trains/day or 50% as measured in gross tons miles annually
Rail Yard	20% increase as measured in carload activity
Intermodal Facility	Increase in truck traffic greater than 10% of average daily traffic or 50 trucks/day

The attainment status of each affected county will be determined. The designation for the attainment status of each county is as follows:

A = Attainment;
NA = Nonattainment; and
M = Maintenance[1]

[1]Maintenance areas are attainment areas which were previously classified as nonattainment.

For this study, counties that are only partial nonattainment were evaluated to determine if any rail facilities are in the nonattainment portion of the county. If rail facilities are in the nonattainment portion, the county was deemed nonattainment (D-NA). If no rail facilities are in the nonattainment portion, the county was deemed attainment (D-A).

For each rail line segment, rail yard, and intermodal facility with an activity increase meeting the STB thresholds, the associated air emission increases will be calculated.

Composite Analysis

In addition to analyzing the air quality impacts of each of the three operating plans, the composite analysis will sum up the air emission increases associated with rail operations from CSX, NS, and the Shared Areas which meet the STB thresholds. The composite analyses will be performed on the county level. The emission increases within each county will be summed, yielding acquisition-related emission increases.

Systemwide Analysis

The systemwide analysis will incorporate all counties (attainment, nonattainment, and maintenance) affected by the proposed acquisition. All changes in activity will be analyzed in order to determine the overall effect of air emissions due to the proposed acquisition.

Air Quality Methodology and Calculations for Rail Line Segments

The increase in emissions for each rail line segment will be calculated using the total gross ton increase expected on the segment and the length of each segment. These values, when multiplied together, will provide the gross ton-mile increase for that rail line segment. Next, the increase in total gallons of diesel fuel consumed for each segment will be obtained by dividing the gross ton-mile increase by the fuel efficiency factor, as calculated for the combined systems (i.e., 726.8

gross ton-miles per gallon for an average diesel locomotive on the CSX system, 702.9 gross ton-miles per gallon on the NS system, and 719.2 gross ton-miles per gallon on the Shared Areas. The corresponding annual emission increases will be estimated by multiplying the annual fuel consumption for each rail line segment by emission factors. Criteria pollutant emission factors were obtained from emission rates provided in USEPA's "Emission Standards for Locomotives and Locomotive Engines; Proposed Rule"[2] dated February 11, 1997. This proposed rule provides emission rates for line haul and switch locomotives which were used by USEPA to determine the emission standards in the proposed rule. The emission rates for line haul locomotives were converted to units of pounds of pollutant per 1000 gallons of diesel fuel consumed, and are provided below:

Hydrocarbons (HC)[2]	21.0
Carbon Monoxide (CO)[2]	62.9
Nitrogen Oxides (NO_x)[2]	566.4
Sulfur Dioxide (SO_2)[3]	36.7
Particulate Matter (PM)[2]	14.3
Lead (Pb)[4]	0.0012

Each rail line segment travels through one or more counties. The portion of track that lies within a particular county is a percentage of the total rail line segment length. The increase in emissions of a given pollutant from the entire rail line segment will be multiplied by the appropriate percentage in order to determine the increase in emissions from the segment in a particular county.

[2]United States Environmental Protection Agency, February 11, 1997. 40 CFR Parts 85, 89 and 92. Emission Standards for Locomotive and Locomotive Engines; Proposed Rule. The emission factors incorporate a fuel efficiency of 0.37 lbs of fuel per HP-hr and a density of 7.05 lbs per gallon.

[3]SO_2 emissions are based on a fuel sulfur content of 0.26 percent by weight and a density of 7.05 lbs per gallon.

[4]Lead emissions are based on Table 1.3-11 of AP-42 (8.9 lbs Pb/10^{12} Btu.) The heat content of the fuel is 140,000 Btu per gallon.

This methodology will be employed for all criteria pollutants on every rail line segment that will experience an increase in activity equal to or greater than the STB thresholds.

The following sample calculation for a CSX rail line segment illustrates the emission estimation procedure for hydrocarbons:

$$[16.0\ \textit{miles (segment length)}]\ x \left[\frac{45.17\ x\ 10^6\ \textit{gross tons (increase)}}{\textit{year}}\right] x$$

$$\left[\frac{1\ \textit{gallon}}{726.8\ \textit{gross ton miles}}\right] = 9.87\ x\ 10^5\ \frac{\textit{gallons diesel fuel consumption (increase)}}{\textit{year}}$$

$$\left[9.87\ x\ 10^5\ \frac{\textit{gallons}}{\textit{year}}\right] x \left[\frac{21\ \textit{lbs (HC)}}{1000\ \textit{gallons}}\right] x \left[\frac{1\ \textit{ton}}{2000\ \textit{lb}}\right] = 10.44\ \frac{\textit{tons(HC)}}{\textit{year}}$$

Emission Calculation Assumptions:

- A fuel efficiency factor of 726.8 gross ton-miles per gallon will be used on the CSX system, a fuel efficiency factor of 702.9 gross ton-miles per gallon will be used on the NS system, and a fuel efficiency factor of 719.2 gross ton-miles per gallon will be used on the Shared Areas system.
- The density of the fuel is 7.05 lbs per gallon.
- The fuel sulfur content is 0.26 percent by weight.
- The fuel heat content is 140,000 Btu per gallon.
- The fuel efficiency factor is 0.37 lbs of fuel per HP-hr.
- Emission factors for HC, CO, NO_x and PM are based on emission rates provided in USEPA's proposed rule on locomotive emission standards. It is conservatively assumed

that all particulate matter emissions represent PM.

- Lead emissions are based on the AP-42 emission factor of 8.9 lbs of lead per 10^{12} Btu.

Air Quality Methodology and Calculations for Rail Yards

Increases in emissions for each rail yard will be calculated by dividing the increase in rail cars switched per day by the systemwide average number of rail cars switched per hour of switch engine operation [for the CSX system it is 18.75 rail cars switched per switch engine-hour, for the NS system it is 22.5 rail cars switched per switch engine-hour]. The daily switch engine operating hours will then be multiplied by the annual operating days (362 days) to yield an estimate of annual switch engine operating hours. The switch engine (locomotive) operating hours will then be multiplied by the hourly diesel fuel consumption rate of 7 gallons per switch engine hour to provide the increase in annual diesel fuel consumption. Finally, the annual emission increases will be estimated by multiplying the annual fuel consumption by emission factors. Criteria pollutant emission factors were obtained from emission rates presented in USEPA's "Emission Standards for Locomotives and Locomotive Engines; Proposed Rule"[2] dated February 11, 1997. This proposed rule provides emission rates for line haul and switch locomotives which were used by USEPA to determine the emission limits proposed in the rule. The emission rates for switch locomotives were converted to units of pounds of pollutant per 1000 gallons of diesel fuel consumed, and are provided below:

Hydrocarbons (HC)[2]	46.2
Carbon Monoxide (CO)[2]	100.7
Nitrogen Oxides (NO_x)[2]	830.7
Sulfur Dioxide (SO_2)[3]	36.7
Particulate Matter (PM)[2]	17.2
Lead (Pb)[4]	0.0012

The following sample calculation for a CSX rail yard illustrates the emission estimation procedure for nitrogen oxides:

$$\left[38\ \frac{railcars\ switched\ (increase)}{day}\right] x \left[\frac{switch\ engine\ hour}{18.75\ railcars}\right] x \left[362\ \frac{days}{year}\right]$$

$$x \left[7.0\ \frac{gallons}{hour}\right] x \left[\frac{830.7\ lbs\ (NO_x)}{1000\ gallons}\right] x \left[\frac{1\ ton}{2000\ lbs}\right] = \frac{2.13\ tons\ (NO_x)}{year}$$

Assumptions:

- The density of the fuel is 7.05 lbs per gallon.
- The fuel sulfur content is 0.26 percent by weight.
- The fuel heat content is 140,000 Btu per gallon.
- The fuel efficiency factor is 0.37 lbs of fuel per HP-hr.
- A rail yard operates 362 days per year.
- A switch engine locomotive consumes 7 gallons of fuel per hour.
- There are 18.75 rail cars switched per switch engine-hour in a CSX rail yard.
- There are 22.5 rail cars switched per switch engine-hour in a NS rail yard.
- Emission factors for HC, CO, NO_x and PM are based on emission rates provided in USEPA's proposed rule on locomotive emission standards. It is conservatively assumed that all particulate matter emissions represent PM.
- SO_2 emissions are based on mass balance .
- Lead emissions are based on the AP-42 emission factor of 8.9 lbs of lead per 10^{12} Btu.

Air Quality Methodology and Calculations for Intermodal Facilities

Emission increases at intermodal facilities are associated with the following types of sources:

- Over-the-road trucks;
- Lift equipment; and
- Yard trucks.

Over-the-Road Trucks

The increase in the number of trucks per day will be multiplied by the average amount of time a truck is in the facility (assumed to be 35 minutes). The daily truck operating hours increase resulting from increased activity will be multiplied by 362 operating days per year to determine the increase in annual truck operating hours. Finally, emission factors for trucks will be multiplied by the increase in annual truck operating hours to estimate the annual increase in emissions. Heavy duty truck criteria pollutant emission factors in units of grams per hour are presented below:

Volatile Organic Compounds (VOC)[5]	12.7
Carbon Monoxide (CO)[5]	94.6
Nitrogen Oxides (NO_x)[5]	53.1
Sulfur Dioxide (SO_2)[6]	5.6

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[5]Emission factors from USEPA's MOBILE5a (Emission Factor Model) utilizing a vehicle speed of 2.5 miles per hour. The resultant emission factor in grams of pollutant per vehicle-mile will be multiplied by 2.5 miles per hour to determine emission factors in grams per hour. A fuel consumption rate of 1.75 gallons per hour was used to convert to grams per gallon.

[6]SO_2 emissions are based on a fuel sulfur content of 0.05 percent by weight; an over-the-road truck fuel consumption rate of 1.75 gallons per hour; and a fuel density of 7.05 pounds per gallon.

Particulate Matter (PM)[7]	20.0
Lead (Pb)[8]	0.001

The following sample calculation for the over-the-road truck emission increases at a CSX intermodal facility illustrates the emission estimation procedure for VOCs:

Assumptions:

- The density of the fuel is 7.05 lbs per gallon.

$$\left[78\ \frac{trucks\ (increase)}{day}\right] x \left[362\ \frac{days}{year}\right] x \left[35\ \frac{minutes}{truck}\right]$$

$$x \left[\frac{1\ hour}{60\ minutes}\right] x \left[12.7\ \frac{grams}{hour}\right] x \left[\frac{lbs}{454\ grams}\right]$$

$$x \left[\frac{1\ ton}{2000\ lb}\right] = 0.23\ \frac{tons\ (VOC)}{year}$$

- The fuel sulfur content is 0.05 percent by weight.
- The fuel heat content is 140,000 Btu per gallon.
- The fuel efficiency factor is 0.37 lbs of fuel per HP-hr.
- An intermodal facility operates 362 days per year.
- An over-the-road truck consumes 1.75 gallons of fuel per hour while in the intermodal

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[7]PM emissions are based on 40 CFR 86.088-11. The emission factor incorporates a fuel efficiency of 0.37 lbs of fuel per HP-hr, a fuel usage of 1.75 gallons per hour, and a fuel density of 7.05 lbs per gallon.

[8]Lead emissions are based on Table 1.3-11 of AP-42 (8.9 lbs Pb/10^{12} Btu.) The heat content of the fuel is 140,000 Btu per gallon. The fuel consumption rate for over-the-road trucks is 1.75 gallons per hour.

facility.

- An over-the-road truck is operating in the intermodal facility for 35 minutes.
- Emission factors for VOC, CO, and NO_x are calculated with USEPA's MOBILE5a (A vehicle speed of 2.5 miles per hour is assumed).
- SO_2 emissions are based on mass balance.
- Lead emissions are based on the AP-42 emission factor of 8.9 lbs of lead per 10^{12} Btu.
- PM emissions are based on 40 CFR 86.088-11. It is conservatively assumed that all particulate matter emissions represent PM.

Lift Equipment

For purposes of emission estimation, all lift equipment at a facility will be grouped and considered as either a "packer" or a "crane." The annual increase in fuel consumed will be calculated by multiplying the annual increase in the number of lifts by the "packer" or "crane" fuel consumption rate per lift [0.38 gallons per lift on the CSX system, and 0.54 gallons per lift on the NS system]. The increase in annual fuel consumption will then be multiplied by criteria pollutant emission factors (in units of grams per gallon) for lift equipment, which were based on heavy duty truck emission factors, as listed below:

Volatile Organic Compounds (VOC)[5]	7.26
Carbon Monoxide (CO)[5]	54.06
Nitrogen Oxides (NO_x)[5]	30.34
Sulfur Dioxide (SO_2)[9]	16.64
Particulate Matter (PM)[10]	11.43

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[9]SO_2 emissions are based on a fuel sulfur content of 0.26 percent by weight, and a fuel density of 7.05 pounds per gallon.

[10]PM emissions are based on 40 CFR 86.088-11. The emission factor incorporates a fuel efficiency of 0.37 lbs of fuel per HP-hr, and a fuel density of 7.05 lbs per gallon.

Lead (Pb)[11] 0.0006

The following sample calculation for the lift equipment emission increases at a CSX intermodal facility illustrates the emission estimation procedure for nitrogen oxides:

$$\left[46{,}100\ \frac{lifts\ (increase)}{year}\right] x \left[\frac{0.38\ gal}{lift}\right] x \left[30.34\ \frac{grams}{gallon}\right] x$$

$$\left[\frac{lbs}{454\ grams}\right] x \left[\frac{1\ ton}{2000\ lbs}\right] = 0.59\ \frac{ton\ (NO_x)}{year}$$

Assumptions:

- The density of the fuel is 7.05 lbs per gallon.
- The fuel sulfur content is 0.26 percent by weight.
- The fuel heat content is 140,000 Btu per gallon.
- The fuel efficiency factor is 0.37 lbs of fuel per HP-hr.
- Emission factors for VOC, CO, and NO_x are calculated with USEPA's MOBILE5a (A vehicle speed of 2.5 miles per hour is assumed).
- A "packer" or "crane" consumes 0.38 gallons per lift on the CSX system and 0.54 gallons per lift on the NS system.
- SO_2 emissions are based on mass balance.
- Lead emissions are based on the AP-42 emission factor of 8.9 lbs of lead per 10^{12} Btu.
- PM emissions are based on 40 CFR 86.088-11. It is conservatively assumed that all particulate matter emissions represent PM.

[11]Lead emissions are based on Table 1.3-11 of AP-42 (8.9 lbs Pb/10^{12} Btu.) The heat content of the fuel is 140,000 Btu per gallon.

Yard Trucks

The annual increase in fuel consumed will be calculated by multiplying the annual increase in lifts by the yard truck fuel consumption rate per lift [0.34 gallons per lift on the CSX system, and 0.2 gallons per lift on the NS system]. The increase in annual fuel consumption will then be multiplied by the criteria pollutant emission factors (in units of grams per gallon) for yard trucks, which were based on heavy duty truck emission factors, listed below:

Volatile Organic Compounds (VOC)[5]	7.26
Carbon Monoxide (CO)[5]	54.06
Nitrogen Oxides (NO_x)[5]	30.34
Sulfur Dioxide (SO_2)[12]	16.64
Particulate Matter (PM)[13]	11.43
Lead (Pb)[14]	0.0006

The following sample calculation for the yard truck increases at a CSX intermodal facility illustrates the emission estimation procedure for nitrogen oxides:

$$\left[46{,}100\ \frac{lifts\ (increase)}{year}\right] x \left[\frac{0.34\ gal}{lift}\right] x \left[30.34\ \frac{grams}{gallon}\right]$$

$$x \left[\frac{lbs}{454\ grams}\right] x \left[\frac{1\ ton}{2000\ lbs}\right] = 0.46\ \frac{tons\ (NO_x)}{year}$$

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[12]SO_2 emissions are based on a fuel sulfur content of 0.26 percent by weight, and a fuel density of 7.05 pounds per gallon.

[13]PM emissions are based on 40 CFR 86.088-11. The emission factor incorporates a fuel efficiency of 0.37 lbs of fuel per HP-hr, and a fuel density of 7.05 lbs per gallon.

[14]Lead emissions are based on Table 1.3-11 of AP-42 (8.9 lbs Pb/10^{12}Btu.) The heat content of the fuel is 140,000 Btu per gallon.

Assumptions:

- The density of the fuel is 7.05 lbs per gallon.
- The fuel sulfur content is 0.26 percent by weight.
- The fuel heat content is 140,000 Btu per gallon.
- The fuel efficiency factor is 0.37 lbs of fuel per HP-hr.
- Emission factors for VOC, CO, and NO_x are calculated with USEPA's MOBILE5a (A vehicle speed of 2.5 miles per hour is assumed).
- A yard truck consumes 0.34 gallons per lift on the CSX system and 0.2 gallons per lift on the NS system.
- SO_2 emissions are based on mass balance.
- Lead emissions are based on the AP-42 emission factor of 8.9 lbs of lead per 10^{12} Btu.
- PM emissions are based on 40 CFR 86.088-11. It is conservatively assumed that all particulate matter emissions represent PM.

Air Quality Methodology and Calculations for Truck-to-Rail Diversions

This section describes the method used to calculate truck emissions decreases resulting from truck ladings being diverted from highways. This diversion will reduce truck miles. For ladings that would be diverted, the average gross weight of trucks is 60,000 to 64,000 pounds. The average gross weight fall into the category of EPA's load (work) factor Class 8B (vehicle gross weight of 60,000 to 80,000 pounds) for heavy duty trucks which is 3.129 brake-horsepower-hour (bhp-hr) per mile.

EPA's MOBILE5a Emission Factor Model did not include the emissions factor for Class 8B (they plan to do so in Mobil 6). There are emissions factors for trucks over the range of 8,500 to 80,000 pounds, based on a load factor of 2.03 bhp-hr. These emissions factors are presented below for such a truck traveling 50 miles per hour:

Volatile Organic Compounds (VOC)[15]	1.11
Carbon Monoxide (CO)[15]	5.60
Nitrogen Oxides (NO_x)[15]	12.77

As reflected in EPA's load factors, heavier trucks require more fuel and associated emissions. To more accurately quantify emissions from trucks being diverted from highways, the MOBILE5a VOC, CO and NO_x emission factors were subsequently ratioed up to the Class 8B load factor. The following calculation illustrates this procedure for NO_x emissions:

$$\frac{12.77\ grams}{mile} \times \frac{\dfrac{3.129\ bhp\ hour}{mile}}{\dfrac{2.03\ bhp\ hour}{mile}} = \frac{19.68\ grams}{mile}$$

The heavy duty diesel Class 8B emission factors in units of grams per vehicle mile traveled are presented below for a truck traveling 50 miles per hour:

Volatile Organic Compounds (VOC)	1.71
Carbon Monoxide (CO)	8.63
Nitrogen Oxides (NO_x)	19.68

SO_2, PM and lead emission factors in units of grams per vehicle mile traveled are presented below:

[15]Emission factors from USEPA's MOBILE5a (Emission Factor Model)

Sulfur Dioxide (SO_2)[16]	0.64
Particulate Matter (PM)[17]	2.29
Lead (Pb)[18]	0.0001

The following sample calculation for truck-to-rail diversion NO_x emission decreases illustrates the emission estimation procedure:

$$\frac{-1{,}000{,}000\ \mathit{miles}}{\mathit{year}} \times \frac{19.68\ \mathit{grams}}{\mathit{mile}} \times \frac{\mathit{lbs}}{454\ \mathit{grams}} \times \frac{1\ \mathit{ton}}{2000\ \mathit{lb}} = -21.7\ \mathit{tons\ of\ NO_x/year}$$

The reduction in emissions due to truck-to-rail diversions will be subsequently summed with emissions changes due to all Acquisition-related rail line segment and rail yard/intermodal facility activity changes to determine the net change in emissions due to the Acquisition.

[16] SO_2 emissions are based on a fuel sulfur content of 0.05 percent by weight; an over-the-road truck fuel consumption rate of 10 gallons per hour; a vehicle speed of 50 miles per hour; a fuel economy of 5 miles per gallon; and a fuel density of 7.05 pounds per gallon.

[17] PM emissions are based on 0.6 grams per brake HP-hr (40 CFR 86.088-11.) The emission factor incorporates a fuel efficiency of 0.37 lbs of fuel per HP-hr; a fuel usage of 10 gallons per hour; a vehicle speed of 50 miles per hour; a fuel economy of 5 miles per gallon; and a fuel density of 7.05 lbs per gallon.

[18] Lead emissions are based on Table 1.3-11 of AP-42 (8.9 lbs Pb/10^{12} Btu). The heat content of the fuel is 140,000 Btu per gallon; the fuel consumption rate for over-the-road trucks is 10 gallons per hour; and the vehicle speed is assumed to be 50 miles per hour.

APPENDIX B

NOISE METHODOLOGY

NOISE METHODOLOGY

RAIL LINE SEGMENTS

NOISE LEVEL THRESHOLDS

The STB regulations specify that noise studies be done for all rail line segments where traffic will increase by at least 100% as measured by annual gross tons miles or at least 8 trains per day. The regulations specify two types of noise level thresholds for locations where noise studies are performed:

1. An increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (abbreviated L_{dn} or DNL) of 3 decibels (dBA) or more.

2. L_{dn} of 65 dBA or greater.

The noise increase is to be quantified for all sensitive receptors (schools, libraries, residences, retirement communities and nursing homes) that are in the project area where these thresholds will be surpassed.

The Day-Night Sound Level, abbreviated L_{dn} or DNL, represents an energy average of the A-weighted noise levels occurring during a complete 24-hour period. An increase in L_{dn} of 3 dBA could result from a 100 percent increase in rail traffic, a substantial change in operating conditions, changed equipment, or a shift of daytime operations to the nighttime hours. Nighttime noise often dominates L_{dn} because of a weighting factor added to nighttime noise to reflect most people being more sensitive to nighttime noise. In calculating L_{dn}, the nighttime adjustment makes one event, such as a freight train passby, occurring between 10 p.m. and 7 a.m., equivalent to ten of the same events during the daytime hours.

Assuming a typical separation distance of 150 feet from the rail line to residences, an L_{dn} level of 65 dBA from rail operations will usually require six or more trains per day. Near a grade crossing where the train horns are sounded at full volume, six trains per day, without considering any shielding, can cause L_{dn} to exceed 65 dBA at distances greater than 300 feet from the tracks.

There are some track segments where the STB threshold for a noise study is exceeded, but the total change in noise exposure would be insignificant. The approach taken was to analyze those areas where the projected increase in train volume or change in train mix would be expected to cause: (1) more than a marginal change in noise exposure, and (2) cause a significant increase in the number of noise sensitive receptors within the L_{dn} 65 contour. For this study, any increase in L_{dn} less than 2 dBA was considered insignificant. A 2 dBA threshold was selected because:

1. Near railroad facilities, a plus or minus 2 dBA variation in L_{dn} is common because of the normal variation in factors such as: operating condition, operating procedures, weather, time of day, and equipment maintenance.

2. In most cases, a 2 dBA increase in noise exposure would cause only a small change (approximately 10%) in the number of residences within the L_{dn} 65 contour. This is because noise impacts from train operations tend to be localized to the residences closest to the tracks. The acoustic shielding provided by the first row or two of residences is usually sufficient to keep noise exposure below L_{dn} 65 at residences that are farther away.

3. Although a 2 dBA increase in noise exposure is often considered an insignificant change, it was selected as a conservative screening level for this study and for previous studies.

Approach

The overall goal of the noise study is to identify noise sensitive land uses where the projected change in operations could result in noise exposure increases that meet or exceed the STB thresholds. This assessment provides estimates of the number of noise-sensitive receptors where there will be a significant increase in noise exposure and the STB thresholds will be exceeded. The noise impact assessment study is based on baseline (1995) train volumes, projected post-acquisition activity levels from the CSX and NS operating plans, noise models available in the literature, and noise measurements at existing CSX, NS, and Conrail facilities.

Following is an outline of the approach that has been used for the assessment of potential noise impacts:

1. Develop noise models: Models for estimating line segment noise have been defined for significant noise sources. For line segments, the dominant noise sources are the normal noise from freight and passenger train operations and the audible warning signals at grade crossings. Although wheel squeal noise can be significant on tight curves, it is relatively rare for there to be appreciable wheel squeal on line segments since tight radius curves are usually avoided on line segments. Curves with small enough radii for substantial wheel squeal are normally limited to yard areas and connections between intersecting rail lines.

2. Identify sensitive receptors and existing noise conditions: Noise sensitive land uses were identified through review of USGS maps and aerial photographs, discussions with rail personnel about operation of the facilities and their experience with community noise problems, and site visits. For all of the line segments that were analyzed, either site visits or aerial photographs were used to inventory the noise sensitive land uses along the tracks. In addition, noise monitoring was performed at representative sites along several of the segments

both to document existing noise exposure and to provide a check of the noise projection model.

3. Project existing and future noise exposure: Information on distances and propagation paths to sensitive receptors and existing and future operation plans have been used to estimate noise exposure in terms of the L_{dn}. Instead of doing noise projections for each sensitive receptor, L_{dn} 65 contours were drawn on the maps or aerial photographs. For all of the line segment noise projections, the average train was assumed to be 6200 feet long for CSX and 5000 feet for NS, traveling at 40 mph, and pulled by 2.4 locomotives.

It was assumed that train horns are sounded starting ¼ mile before all grade crossings and continuing until the locomotive is through the grade crossing. Where, based on either a site visit or aerial photographs, it appears that buildings along the tracks act as acoustical shielding for buildings farther from the tracks, adjustments for shielding were made using the Federal Highway Administration (FHWA) approach that is summarized in Table N-1. While the FHWA approach accounts for multiple rows of shielding, this evaluation conservatively considered only one row of shielding.

Table N-1
Adjustments for Acoustical Shielding by Rows of Buildings

Percent of Row Occupied by Buildings	Attenuation		
	First Row	Subsequent Rows	Maximum
Less than 40%	0 dB	0 dB	0 dB
40 to 65%	3 dB	1.5 dB	10 dB
65 to 90%	5 dB	1.5 dB	10 dB
Greater than 90%	Analyze using standard barrier attenuation models		
Source: *Federal Highway Traffic Noise Prediction Model*, T.M. Barry and J.A. Reagan, Federal Highway Administration, Report No. FHWA-RD-77-108, Dec. 1978.			

4. Count noise sensitive receptors: Approximate counts were made of the number of residences, schools, and churches within the L_{dn} 65 contour for both the pre- and post-acquisition train volumes using maps, aerial photographs, or site visits. The final result of this analysis is an estimate of the total number of sensitive receptors likely to be affected by increased noise exposure by projected CSX or NS operations.

Measurement Data Used for Noise Models

Noise measurements of existing CSX, NS, and Conrail equipment were taken to provide a solid basis for the noise projections. The measurements included train noise from line-haul rail lines, and noise near grade crossings to document noise levels due to sounding train horns prior to grade crossings.

The measurement data provide a realistic picture of train noise in communities. Details of the measurements are provided below. The measurements of CSX and Conrail trains were performed by Harris Miller & Hanson Inc. (HMMH) and the NS measurements were carried out by Thornton Acoustics.

CSX and Conrail Trains

Noise measurements were performed at representative sites along operational sections of CSX and Conrail line segments in the cities of Powell, Sandusky, Fostoria, La Rue, and Leipsic, Ohio. The general approach was to locate microphones at one of more locations along a section of track, and then record and videotape the train passbys over an 8- to 10-hour period. The noise measurements that were performed are summarized in Table N-2. Measurements were performed over a 4-day period at a total of 13 sites along five different rail lines.

Automatic noise monitors were the primary means of collecting the noise data, although recordings using standard magnetic tape recorders were made during daylight hours to allow detailed laboratory analysis of train passby noise. Larson Davis model LD870 noise monitors were used. The measurement systems were fully compliant with the Type 1 Sound Level Meter requirements of ANSI Standard S1.4. Field calibrations, traceable to the U.S. National Institute of Standards and Technology (NIST), were carried out before and after each set of measurements.

Table N-2
Summary of CSX and Conrail Train Noise Measurements
November 1996

Site #	Date	Rail Line	Street/Town	Microphone Location	# of Freight Trains Observed	# of Freight Trains Not Observed
1	19-20 Nov 1996	CSX	Powell, OH (grade crossing at Seldom Seen Road)	Grade crossing	5	12
				600' before grade crossing	6	0
				1200' before grade crossing	6	0
				Line segment	6	15
2	20-21 Nov 1996	CSX	Fostoria, OH	Grade crossing	7	21
				Line segment	7	21
3	20 Nov 1996	Conrail	Sandusky, OH (grade crossing at Edgewater Ave)	Grade crossing	12	0
				Line segment	12	0
4	21-22 Nov 1996	Conrail	La Rue, OH	Grade crossing	9	12
				600 ft before grade crossing	4	0
				Line segment	8	12
5	21-22 Nov 1996	CSX	Road C, Leipsic, OH	Grade crossing	3	16

Note: "Not observed" trains were recorded with unattended noise monitors.

Two approaches were used to collect the noise data:

1. During the daylight hours, the following data were collected for each train passby:

   - sound level time history (one sample every second)
   - audio tape recordings
   - videotape of the entire passby

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- measurement of train speed, by timing between two points of known separation distance
- number of locomotives and cars

The observers were usually located at the grade crossings; however, because the other measurement locations were a relatively short distance away on the same rail lines, the observations of train lengths and speeds at the grade crossing locations were also valid for the other measurement locations.

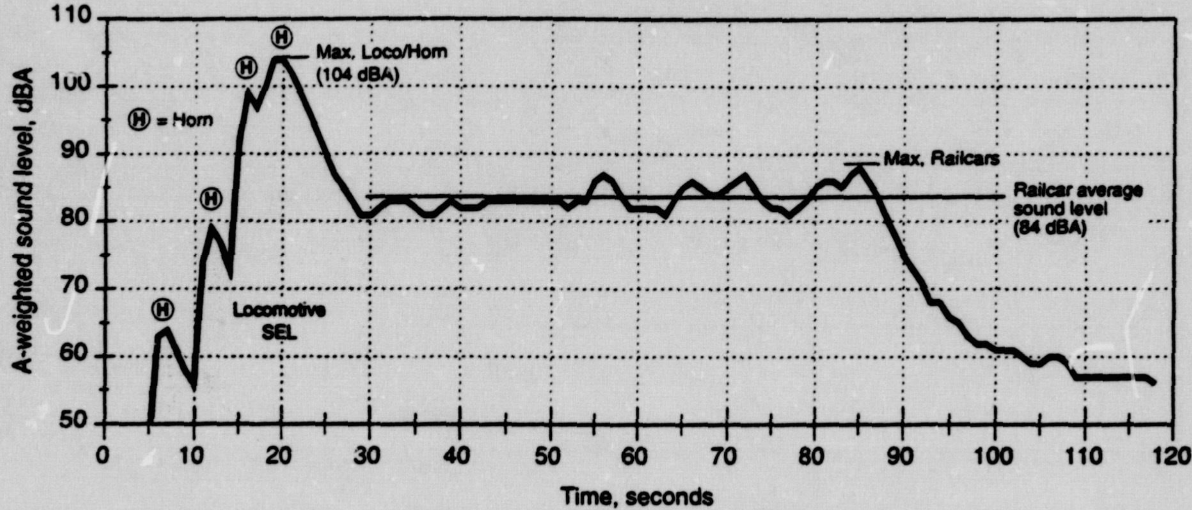
2. After dark, automatic noise monitors were left in position until the next morning. The monitors were programmed to obtain data on all significant noise events, which, because the sites had been carefully selected so that the trains were the dominant noise source, were almost all caused by train passbys. Any non-train noise events were easily identified from the time history traces.

Figure N-1 shows two typical passby time histories, one for a normal line segment and one for a train approaching a grade crossing. For the observed trains, a special computer program developed by HMMH was used to separate the noise events into two parts: (1) where locomotive or horn noise dominates, and (2) the remainder of the event where noise from the rail cars dominates. The maximum sound level (L_{max}) and the sound exposure level (SEL) were determined for the locomotive and rail car parts of each observed event. This is the information that was used as the basis for the noise projections along line segments.

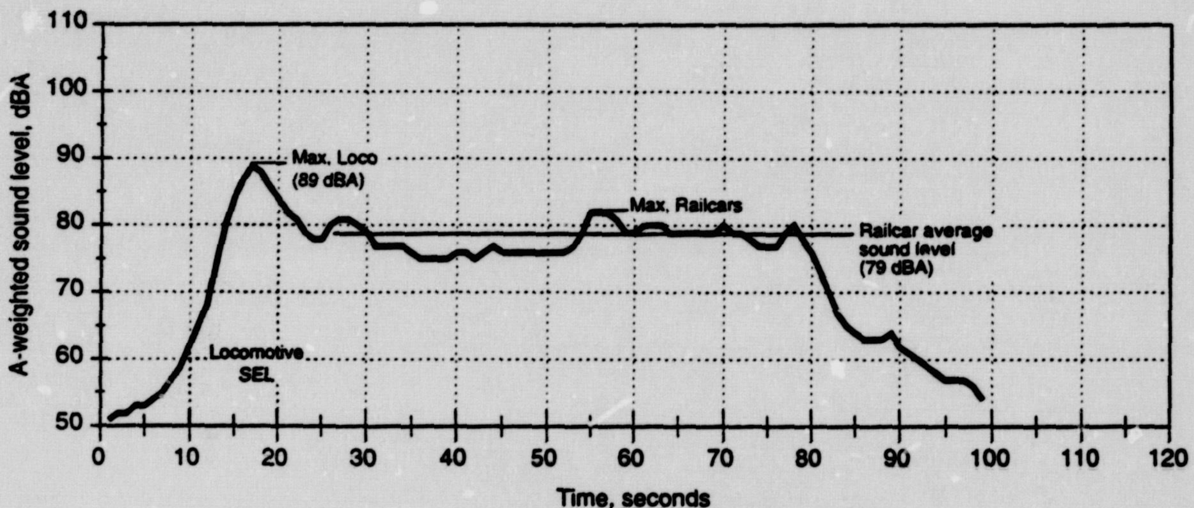
The detailed results of the noise measurements are given in Table N-3 for the observed train events and Table N-4 for the non-observed events. The detailed noise data has been carefully inspected for trends that could influence the noise projections. Table N-5 summarizes the averages that have been developed from the measurements. Observations and conclusions from the measurement results are:

- There is considerable variation between trains, and no real correlation in the data between train type and noise levels. While a fairly consistent set of source levels was developed from the data, there was no correlation between source levels and factors such as train consist, speed, locomotive type, and other common factors that influence source levels. This is due to many factors, such as rail car and track age and maintenance, variation in wheel conditions, and variations in the locomotive throttle settings.
- The train noise at grade crossings is dominated by horn noise. Figure N-1 shows a typical passby of a train at a grade crossing and another on a line segment. There is a difference of 15 dBA in the Lmax levels and a corresponding difference of 15 dBA in the locomotive SEL. This large difference in levels accounts for the high concentration of noise impact around grade crossings. In addition, the measurements do not indicate any relationship between horn noise level and train speed or train type. The horn noise clearly dominates the noise exposure near grade crossings.
- There are also differences in the horn noise levels between locations right at a grade crossing and 600 and 1200 feet before the grade crossing. On average, there is a drop off of about 5-7 dBA at 1200 ft from the grade crossing. This is approximately ¼ mile from the grade crossing, which is the distance at which most states require the horn blowing sequence to be initiated. For the noise projections, a constant SEL level was assumed from the point where the sequence is initiated all the way to the grade crossing.
- In order to develop models for the line segments, the relative levels of locomotives and rail cars on line segments were averaged to arrive at source levels. Table N-5 shows these levels and the number of trains in each average.
- An attempt was made to increase the accuracy of the model by breaking the numbers of trains down by type and using different source levels for different types of trains, such as coal trains, merchandise trains, and intermodal trains. However, the data do not show any correlation between train type and source noise levels.

Figure N-1. Typical Freight Train Passbys



Train 2, Site 5, Grade Crossing Microphone
(2 locomotives, 64 cars, 34 mph)



Train 8, Site 4, Line Segment
(3 locomotives, 81 cars, 60 mph)

Table N-3
Noise Data for Observed Conrail and CSX Trains

Train #	Direction	Length		Type	Speed (mph)	Mic Pos	Dist. (ft)	Measured Sound Levels			
								Locomotives		Rail Cars	
		# Loco	# Cars					Max	SEL	Max	Avg
Site 1 - Powell, OH (CSX) *[microphones 1, 2 and 3 located south of grade crossing]*											
1	SB	2	98	Unknown: data only at mic. 2	37	2	113	97	104.2	83	78.3
2	NB	2	22	Merchandise, short train, could not separate locos and rail cars except at position 4	42	1	113	102	107.9	--	--
						2	113	103	109.1	--	--
						3	113	97	101.5	--	--
						4	87	85	94.0	89	85.6
3	NB	2	148	Coal unit, loaded	18	1	100	107	115.0	74	69.2
						2	100	108	115.3	74	69.0
						3	100	87	98.0	71	65.8
					16	4	100	84	96.4	70	64.8
4	SB	2	25	Coal 75%, Merchandise 25% Could not separate locos and rail cars at mic pos. 3	43	1	113	95	100.8	79	78.1
						2	113	89	94.8	81	75.1
						3	113	80	90.9	--	--
						4	87	Horn in event		84	82.4
5	SB	2	13	Coal and merchandise Short train, could not separate locos and rail cars	46	1	113	96	100.9	--	--
						2	113	92	98.7	--	--
						3	113	86	95.0	--	--
						4	87	91.6	99.6	--	--
6	NB	2	90	Coal unit, 1st of 2 trains together	26	1	100	103	110.8	75	72.6
						2	100	104	112.7	76	72.5
						3	100	101	107.3	73	69.5
						4	100	86	95.1	75	72.4
7	SB	2	100	Coal unit	45	3	113	84	95.7	81	77.5
						4	87	86	96.7	87	83.6
Site 2 - Fostoria, OH (CSX) *[microphone 1 located east of grade crossing]*											
1	WB	3	100	Unknown, estimated speed	35	1	100	104	108.6	87	81.5
						4	100	89	96.1	84	79.6
2	EB	2	148	Truck trailer 75%, intermodal containers 25%	39	1	113	100	104.7	75	72.2
						4	113	85	93.1	75	71.1
3	EB	3	54	Merchandise	39	1	113	101	106.3	81	77.8
						4	113	89	97.1	79	76.0
4	EB	6	84	Merchandise	26	1	113	105	108.5	81	74.7
						4	113	75	87.7	78	70.3
5	WB	2	48	Coal 90%, Merchandise 10%	30	1	100	108	114.9	85	80.5
						4	100	83	92.2	81	77.1
6	WB	4	110	Coal 50%, Merchandise 50%	32	1	100	108	113.3	85	80.0
						4	100	87	97.8	83	78.1
7	EB	2	69	Automotive unit, speed est.	38	1	113	101	107.8	76	73.5
						4	113	88	96.7	76	72.9

Table N-3 (continued)

Train #	Direction	Length # Loco	Length # Cars	Type	Speed (mph)	Mic Pos	Dist. (ft)	Measured Sound Levels: Locomotives Max	Locomotives SEL	Rail Cars Max	Rail Cars Avg
Site 3 - Sandusky, OH (Conrail) *[microphone 1 located west of grade crossing]*											
1	EB	2	30	Merch 1/3, coal 1/3, fuel 1/3	12	1	100	99	107.4	78	73.2
						4	100	84	94.2	72	68.0
2	EB	3	135	Intermodal unit	26	1	100	100	104.8	77	72.3
						4	100	84	92.2	81	71.3
3	EB	3	112	Unit, probably grain	27	1	100	94	99.9	78	73.7
						4	100	90	95.8	82	74.7
4	EB	3	110	Merchandise	23	1	100	96	103.8	81	77.2
						4	100	84	91.2	81	75.5
5	EB	3	131	All intermodal trailers on flat cars	23	1	100	101	108.4	77	73.1
						4	100	Horn in event		80	73.6
6	WB	2	96	Slow train	12	1	113	96	102.5	73	66.7
						4	113	73	83.2	80	65.4
7	WB	2	89	Coal unit	19	1	113	96	103.4	85	80.3
						4	113	87	96.5	88	82.8
8	WB	2	54	Merchandise	18	1	113	103	109.2	82	76.9
						4	113	82	91.8	79	73.5
9	WB	2	64	Intermodal & trailers	19	1	113	97	103.3	75	71.1
						4	113	81	90.3	74	70.2
10	WB	2	109	Automotive unit	20	1	113	100	105.3	76	69.4
						4	113	81	92.3	82	66.9
11	EB	1	5	Loco & cars not separable	20	1	100	99	106.3	--	--
						4	100	80	87.9	--	--
12	WB	3	79	Intermodal unit	23	1	113	101	108.4	81	73.9
						4	113	83	91.6	78	72.0
Site 4 - LaRue OH. (Conrail) *[microphone 1 located west of grade crossing]*											
1	EB	2	28	--	37	1	85	105	110.6	86	80.5
2	WB	6	0	Locos only, no cars	-	1	85	100	10[illegible].8	--	--
						4	100	82	89.7	--	--
3	WB	3	108	½ Grain, ½ Merchandise	43	1	85	100	107.9	89	85.0
						4	100	93	101.2	87	83.2
4	EB	2	54	Merchandise, UP locos	49	1	85	103	109.8	89	84.0
						4	100	92	99.0	86	81.6
5	EB	3	117	Merchandise	48	1	85	105	110.4	90	83.8
						4	100	93	99.5	88	82.3
6	EB	2	66	Intermodal unit	58	1	85	99	106.5	91	82.3
						2	100	97	106.0	84	76.3
						4	100	94	99.6	87	80.3
7	EB	3	112	Intermodal unit	62	1	85	105	111.7	88	80.6
						2	100	104	110.6	79	76.5
						4	100	90	95.9	85	80.0
8	EB	3	81	Intermodal unit	60	1	85	99	104.2	85	79.0
						2	100	98	103.5	83	77.1
						4	100	89	95.2	82	78.5

Table N-3 (continued)

Train #	Direction	Length # Loco	Length # Cars	Type	Speed (mph)	Mic Pos	Dist. (ft)	Measured Sound Levels: Locomotives Max	Locomotives SEL	Rail Cars Max	Rail Cars Avg
9	WB	2	124	Merchandise	44	1	85	105	110.2	89	83.1
						2	100	87	98.5	85	80.8
						4	100	88	96.3	85	80.9
Site 5 - Leipsic, OH (CSX) *[microphone 1 located north of grade crossing]*											
1	SB	2	62	Automotive unit, empty	37	1	100	102	107.3	81	77.2
2	NB	2	64	Merchandise	34	1	100	104	110.3	88	83.9
3	NB	2	50	Oil unit, car count approx	18	1	100	107	113.9	84	77.5

Definitions:

Sound level measures

- Max — Maximum sound level (Lmax) using equivalent of slow sound level meter setting
- SEL — Sound exposure level for locomotives including horn noise when horns were sounded
- Avg — Energy average sound level for period of rail car passbys (equivalent to Leq for rail car passbys)

Microphone positions:

- 1 — at grade crossing
- 2 — 600 feet from grade crossing
- 3 — 1200 ft from grade crossing
- 4 — line segment away from grade crossing

Table N-4
Noise Data for Non-Observed Conrail and CSX Trains

Measurement Location	Type of Site	# Trains*	Direct.	Dist from Track CL, ft	Duration (sec)	Energy Averages (dBA)	
						Lmax	SEL
Site 1. Powell, OH (CSX) Grade crossing mic located north of crossing	Grade Cr.	8	NB	100	146	103	110
	Grade Cr.	4	SB	113	132	99	107
	Line Seg.	8	NB	100	120	83	100
	Line Seg.	4	SB	87	86	90	103
	Line Seg.	3	Unkn	87 (near trk) 100 (far trk)	91	89	101
Site 2. Fostoria, OH (CSX) Grade crossing mic located west of crossing	Grade Cr.	8	EB	113	97	99	105
	Grade Cr.	12	WB	100	101	103	108
	Line Seg.	8	EB	113	90	88	99
	Line Seg.	12	WB	100	97	88	101
Site 4. LaRue, OH (Conrail) Grade crossing mic located east of crossing	Grade Cr.	6	EB	85	94	102	108
	Grade Cr.	6	WB	85	114	98	106
	Line Seg.	6	EB	100	96	90	101
	Line Seg.	6	WB	100	111	90	102
Site 5. Leipsic, OH (CSX)	Grade Cr.	16	Unkn	100	101	104	109

* All measurements cover 16 hour period from late afternoon to the next morning.

Table N-5
Average Values Calculated from Conrail and CSX Train Noise Data

Location	# of Trains	Sound Levels, dBA		
		Maximum Level	SEL	Energy Average
Grade Crossings				
At Crossing	36	103	109	--
600 ft before crossing	6	104	111	--
1200 ft before crossing	3	98	104	--
Locomotives, no horn (two locomotives)	29	88	96	--
Rail Cars (normalized to 40 mph)	33	84	--	79

Notes:
1. All sound levels normalized to 100 ft from track centerline.
2. All values are energy averaged.

NS Trains

Controlled noise tests were conducted on NS using a level stretch of track in China Grove, NC. This single track has high freight traffic and is located next to an open level field. Noise measurements were made over a four-day period while trains were operated at a speed specified for the day, i.e., 20, 35, and 50 mph. Speeds were verified with a radar gun for each train.

Measurements were made at a second location on the fourth day to measure the influence of grade. Engineers were allowed to operate their trains at their normal speed and a radar gun was used to clock the train speed.

All instruments are state-of-the-art. The entire measurement setup was properly field calibrated prior to measurements.

Noise levels of the entire train were measured at four perpendicular distances from the track using an array of microphones at 50, 100, 150, & 200 feet from the track centerline. Microphones were mounted on tripods and their AC outputs were cabled to a nearby trailer where a four-channel Hewlett Packard Dynamic Analyzer was used to measure the L_{eq} of each train. This microphone array was used to determine the wavefront spreading rate [rate of noise reduction versus distance]. This rate was used in conjunction with a reference location to predict the distance from the track to the L_{dn} 65 dBA contour.

This microphone array was supplemented with two precision sound level meters that measured the L_{eq}s and SELs of the locomotives and also of the cars at 150 feet from the track. This was a supplementary measurement that was not used in the model but it was used for cross-checks on the train noise data.

The definition of the SEL is:

$$SEL = L_{eq} + 10Log(t)$$

where:

SEL = Single Event Level, dBA

L_{eq} = Equivalent Energy Level, dBA

t = time, seconds

The L_{eq} represents the average sound pressure level that contains the same equivalent energy as the fluctuating sound level of the event. In simple terms, the high and lows of the fluctuating noise are characterized by a single average number. For example, as a train passes by, the noise will vary as the locomotives and cars go by. This fluctuating noise is characterized by a single sound level that is representative for the entire train. This averaging process is done on a logarithmic basis since decibels are involved.

The SEL represents the total energy contained in the event. For example, a train can be characterized by the L_{eq} and the amount of time that it takes to pass a measurement point. When the SEL is computed, it represents the total energy of the train. For example if two otherwise identical trains passed by, but one was longer than the other, the longer one would have a larger SEL. If one train was twice the length of another train, the SEL would be 3 dBA larger. This assumes that all locomotives and individual cars produce the same noise level. Again, the logarithmic averaging process is involved, i.e., a doubling produces a 3 dBA change.

The L_{eq} corresponds to the loudness of the event whereas the SEL does not. The effects of speed, loudness, time duration, and fluctuating level are conveniently represented by a single number. The SEL is convenient for the computation of the L_{dn}. Alternately, the L_{eq} and time duration could be used with equal ease and their combination would yield the same L_{dn} result.

Measurements were made by the firm of William R. Thornton, Ph.D., P.E. in association with Earshen & Angevine Acoustical Consultants Inc. All work was done by two noise control engineers who are full members of the Institute of Noise Control Engineers, INCE.

Horn noise was measured at a rail crossing in another part of China Grove at a distance of 150 feet from the track. Measurements were made at the midpoint between the ¼-mile marker and the rail crossing. The SEL and L_{eq} of the horn were measured as the train approached and departed this measurement station. This situation represents the worst case for noise for a person living near a crossing.

Measurements were also made at a nearby section of 0.9 percent grade to determine the effects of grade on noise emissions.

The detailed results of the train passby noise measurements at the four microphone positions are given in Table N-6. Measurement results of the 0.9 percent grade train passbys and the train horn measurements are listed in Tables N-7 and N-8, respectively. Finally, all measured NS noise levels are summarized in Table N-9, energy-averaged and normalized to a distance of 100 feet from track centerline.

The results from the noise survey of NS trains showed that the average attenuation rate was 4.8 dBA per doubling of distance. In other words, the noise level from a train passby 200 feet from the track would be 4.8 dBA less than the noise level 100 feet from the track. This represents the attenuation of noise caused by the dissipating effects of the atmosphere and ground. This is consistent with the attenuation rate that would be expected for train noise propagating over soft ground.

Noise from train horns were found to be relatively consistent for the six trains that were measured. At 150 feet from the track, the average L_{eq} was 93 dBA, the average duration was 15.6 seconds, and the energy average SEL was 108 dBA.

Table N-6
Noise Data for NS Trains

Event Time	Speed (mph)	Duration (seconds)	No. of Locomotives	No. of Rail Cars	Measured L_{eq} at Distance from Tracks (dBA)			
					50 ft	100 ft	150 ft	200 ft
919	20	60	2	14	79.8	75.7	73.1	70.9
1023	19	207	2	93	81.2	77.6	75.2	73.9
1053	20	202	??	100	79.8	76.0	73.3	72.0
1214	20	166	3	61	72.8	69.4	66.9	65.7
1243	20	58	2	24	73.1	69.7	67.2	66.4
1353	18	145	2	67	80.3	76.9	73.8	72.1
1624	20	316	2	128	77.9	74.8	72.1	70.9
1731	19	239	2	85	78.4	74.6	72.6	70.4
1752	20	269	3	97	78.9	74.7	72.6	71.0
1802	20	167	2	45	71.5	67.8	65.8	64.3
1913	18	160	2	86	79.7	76.0	73.2	71.9
--	20	240	2	80	79.3	74.2	72.9	70.1
Average:	**20**	**185**	**2**	**73**	**78.6**	**74.8**	**72.3**	**70.7**
1035	25	90	2	38	76.0	71.8	68.8	67.2
1204	33	163	3	127	84.0	79.9	76.5	74.7
1226	32	50	2	36	74.6	70.6	67.3	65.8
1307	30	92	2	37	81.6	77.8	74.8	73.0
1326	34	39	2	39	79.6	75.8	72.6	70.9
1424	34	30	3	69	84.9	81.5	79.2	77.1
1453	33	101	2	97	81.2	76.8	73.3	71.2
1610	34	119	2	91	84.8	80.9	78.3	76.5
1724	35	143	2	124	82.9	78.9	76.4	74.1
1949	35	130	2	76	80.8	77.4	74.9	72.7
2000	35	104	3	57	84.8	80.7	78.2	75.9
2027	33	130	3	97	84.0	79.7	76.3	73.6
Average:	**33**	**99**	**2.3**	**74**	**82.6**	**78.7**	**75.9**	**73.8**
1036	50	54	2	71	84.0	80.5	77.1	75.0
1154	43	122	4	136	87.2	84.0	80.2	77.7
1301	42	102	4	110	88.1	85.2	82.0	79.3
1322	47	23	3	28	85.6	82.4	78.8	76.5
1339	47	38	2	47	86.7	82.8	77.8	74.8
1347	45	80	4	76	82.4	79.5	76.7	74.7
1447	44	76	5	92	87.3	84.2	81.1	79.4
1503	48	41	2	33	85.3	81.7	78.2	74.9
1523	49	51	1	56	80.7	77.2	73.8	71.6

Table N-6 (continued)

Event Time	Speed (mph)	Duration (seconds)	No. of Locomotives	No. of Rail Cars	Measured L_{eq} at Distance from Tracks (dBA)			
					50 ft	100 ft	150 ft	200 ft
1535	45	111	4	121	89.5	86.2	82.6	79.7
1910	45	80	2	70	83.2	79.4	76.6	74.1
1921	41	154	2	138	87.1	83.1	80.1	78.1
Average:	**46**	**78**	**2.9**	**87**	**86.2**	**82.9**	**79.4**	**77.0**

Table N-7
Noise Data from NS Trains on a 0.9 Percent Grade

Event Time	Speed (mph)	Duration (sec)	No. of Loco-motives	No. of Rail Cars	Direction of Travel	Measured L_{eq} at Distance from Tracks (dBA)			
						50 ft	100 ft	150 ft	180 ft
1019	30	120	1	95	--	80.2	78.1	76.0	75.8
1226	53	70	3	44	--	76.8	75.5	73.1	73.0
1257	48	50	2	42	--	79.0	78.7	76.0	75.4
1315	27	166	3	59	--	78.3	76.7	74.6	73.9
1406	33	106	2	59	uphill	78.9	77.7	75.9	77.2
1636	31	161	3	87	uphill	81.3	80.3	76.9	77.2
1450	43	72	3	70	downhill	80.0	77.5	75.4	75.5
1722	42	164	2	132	downhill	79.6	77.6	74.9	74.6

Table N-8
Horn Noise Data from NS Trains
(all measurements taken 150 ft from track centerline)

Time	Direction	L_{eq} (dBA)	L_{max} (dBA)	SEL (dBA)	Duration (seconds)
1030	South	93.0	99.0	105.0	16.0
1049	North	91.5	99.5	103.5	15.7
1222	South	92.0	101.0	104.0	16.0
1238	North	94.7	100.9	107.0	17.0
1304	South	91.2	96.6	101.1	9.3
1400	South	95.4	102.3	108.3	19.6

Table N-9
Average Values Calculated from NS Train Noise Data
(all sound levels normalized to 100 ft from track centerline)

Source	# of Trains	Energy Average Sound Level, dBA	
		Noise Metric	Average Level
Train Horns	6	L_{max}	103
		SEL	108
		L_{eq}	96
Train Passby on level track, 20 mph (no horn)	12	L_{eq}	75
Train Passby on level track, 35 mph (no horn)	12	L_{eq}	78
Train Passby on level track, 50 mph (no horn)	12	L_{eq}	82
Train Passby up 0.9% grade, 31 mph (no horn)	2	L_{eq}	79
Train Passby down 0.9% grade, 45 mph (no horn)	2	L_{eq}	78

Noise Projection Models

This section summarizes the noise projection models that have been used for the impact assessment. The models are mathematical formulas for train noise as a function of distance from the tracks, train speed, number of locomotives and rail cars, number of trains during daytime and nighttime hours, and the noise emissions of the locomotives, rail cars and train horns. The formulas represent common acoustic models that are defined in acoustics literature and that have been previously found to accurately characterize freight train noise. The noise emissions have been derived from the measurement data described above and are characterized by the reference noise levels summarized in Table N-10.

Both the CSX/Conrail and NS noise measurements have been used to derive the reference levels in Table N-10 and the same models of train noise have been used to assess impact for future CSX and NS line segments. The approach used and assumptions made to combine the measurement results into unified models is summarized below:

1. Locomotive Noise: The measurements of CSX and Conrail trains indicate that locomotive noise and rail car noise make approximately equal contributions to total noise exposure. The locomotive noise and rail car noise were not separated in the NS measurements. The total train noise levels showed good agreement between CSX/Conrail trains and NS trains. The locomotive results from the CSX/Conrail measurements have been assumed to be representative of all three systems since the same types of locomotives are used on all three systems.

2. Rail Car Noise: Since the measurements from NS trains did not separate locomotive and rail car noise, the rail car results from the CSX/Conrail measurements were used. As with locomotive noise, the NS data support this assumption.

3. Train Horn Noise: The average noise exposure perpendicular to the track from NS train horns was found to be 3 dB lower than those of CSX and Conrail train horns. Since this was a relatively consistent result and it is quite likely that different types and models of horns are involved, separate horn noise levels were assumed for NS and CSX/Conrail trains.

The noise propagation models for through trains and grade crossings are described below.

Table N-10
Reference Noise Levels used for Projections

Noise Source	Noise Measure	Reference Level
Train Horns		
CSX and Conrail trains	SEL	111 dBA
NS trains	SEL	108 dBA
Locomotives (no horn), 40 mph, two locomotives	SEL	98 dBA
Rail Cars, 40 mph	L_{eq} during rail car passby for train more than 1000 ft long	79 dBA
Standard CSX/CR Train (2.4 locomotives, total length 6,200 ft. 40 mph)	SEL	102 dBA
Standard NS Train (2.4 locomotives, total length 5,000 ft, 40 mph)	SEL	102 dBA
Notes: All noise levels are referenced to a distance of 100 ft from track centerline. Propagation over soft ground is assumed.		

Through Trains

The primary noise sources for through trains are the steel wheels rolling on the steel rails, referred to as wheel/rail noise, and the locomotive noise. Wheel/rail noise is dependent on train speed with noise level varying approximately as $30\times log_{10}$(speed). The noise levels can increase by as much as 15 dBA when wheels or rail are in need of maintenance. The main components of locomotive noise are: the exhaust of the diesel engines, cooling fans, general engine noise, and the wheel/rail interaction. Noise associated with the engine exhaust and cooling fans usually dominates; this noise is dependent on the throttle setting (most locomotives have eight throttle settings) and not on locomotive speed.

Tests have shown locomotive noise to change by about 2 dBA for each one step change in throttle setting. This means that noise levels increase by about 16 dBA as the locomotive throttle is moved from notch one to notch eight. Unfortunately, since locomotive engineers constantly adjust throttle setting as necessary, at best rough estimates of throttle settings are all that is usually available for noise projections. Numerous field measurements of freight train operations indicate that assuming a base condition of throttle position six and adjusting noise levels up or down when better information about typical throttle position is known results in reasonably accurate projections of locomotive noise.

Given the L_{max} of freight cars and a locomotive under a specific set of reference conditions, the noise models allow estimating L_{max}, SEL, L_{dn} and other noise metrics for varying distance from the track, train speeds, and schedules. The standard approach to projecting freight train noise is to model freight cars as moving, incoherent, dipole line sources and locomotives as moving, incoherent, monopole line sources. The basic equations are given in the Federal Transit Administration manual "Transit Noise and Vibration Impact Assessment" [U.S. Department of Transportation, Federal Transit Administration, Report DOT-T-95-16, April 1995] and other references on train noise.

For propagation of train noise over hard ground, which usually means paved urban areas, the SEL attenuation rate will be close to 3 dB for each doubling of distance. For more typical conditions along rail lines such as open lands and fields, the attenuation rate will be higher with the rate dependent on the ground impedance and the height of the source and receiver. Using the ground attenuation model in the FTA manual, assuming that the tracks are 3 to 5 feet above ground level, and assuming the receiver is 5 to 8 feet above ground level, the equivalent attenuation rate over soft ground is 4.5 to 5 dB per distance doubling at distances greater than 100 feet from the track centerline. This is very consistent with the 4.8 dB per distance doubling attenuation rate derived from the NS noise measurements.

The formulas used to project L_{dn} along line segments are:

$$SEL = SEL_{ref} + 16 \times log(100/Dist) - Shielding$$

$$L_{dn} = SEL - 49.4 + 10 \times log(N_{day} + 10 \times N_{night})$$

where:

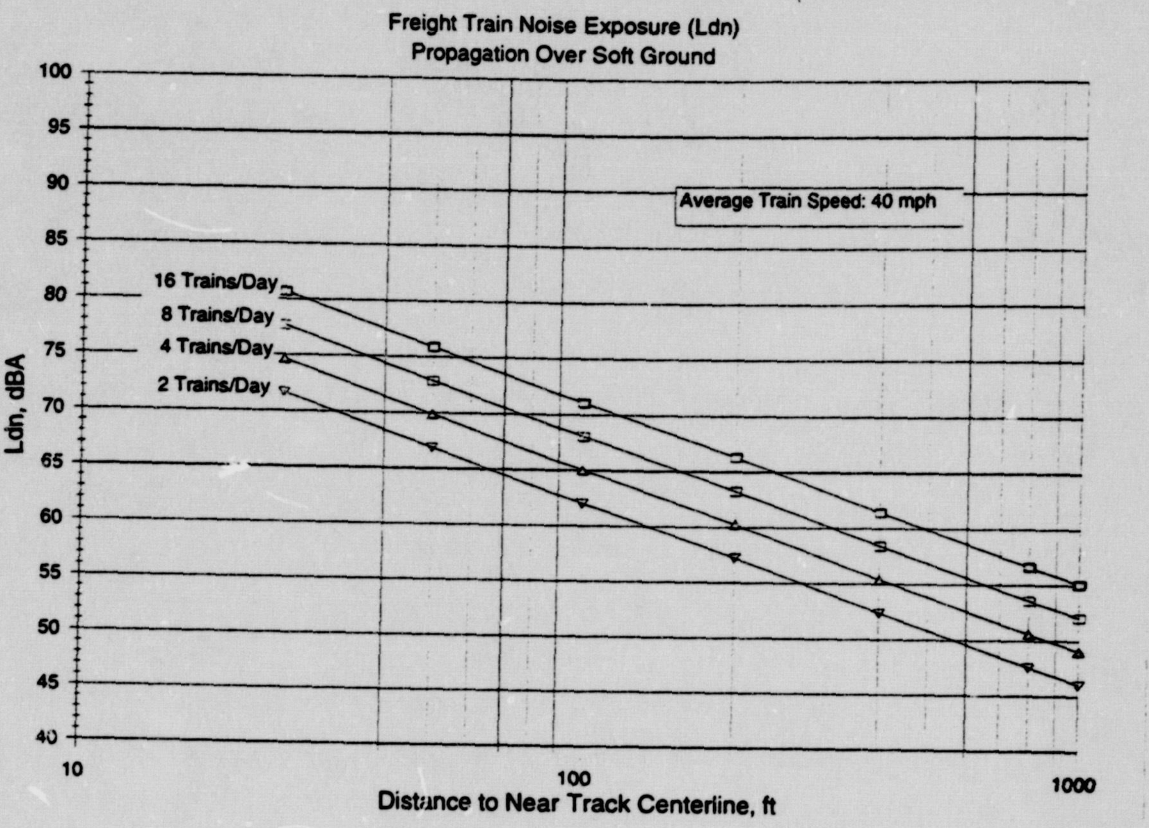
SEL_{ref}	=	Reference SEL from Table N-11 (102 dBA) for assumed standard train of 2.4 locomotives and 6,200 feet of rail cars for CSX, 5,000 feet for NS
Dist	=	Distance from track centerline
Shielding	=	Shielding adjustment for intervening rows of buildings from Table N-3
N_{day}	=	Average number of trains during daytime hours of 7 am to 10 pm
N_{night}	=	Average number of trains during nighttime hours of 10 pm to 7 am

Figure N-2 shows the L_{dn} levels as a function of distance from the near track for different number of trains per day. For this calculation, it is assumed that trains are equally likely to occur any hour of the day, which means that on average 9 out of 24 trains will pass during the nighttime hours. This is critical since, in the calculation of L_{dn}, one nighttime train is equivalent to ten daytime trains. Assuming that there would be no trains in the nighttime hours reduces the projected L_{dn} levels by over 6 dBA. Another important factor in Figure N-2 is that no excess attenuation from acoustic shielding is included. At distances beyond about 100 feet, there are often obstructions such as buildings or the terrain that act as partial sound barriers attenuating noise by 5 to 10 dBA.

Referring to Figure N-2, for a train speed of 40 mph, the distances to L_{dn} of 65 dBA as a function of the number of trains per day are:

Average Number of trains per day	Distance to L_{dn} = 65 dBA
2	65 ft
4	100 ft
8	160 ft
16	240 ft

Figure N-2. Noise Exposure vs. Distance from Tracks



Since the reference quantities used are based on measurements of CSX, NS, and Conrail train noise, the curves in Figure N-2 and the distances given above are good representations of real field conditions. However, there are a number of factors that can cause higher levels of L_{dn}. These include: a concentration of trains during the nighttime hours, locomotives operating at throttle settings higher than six, or train horns being sounded on a regular basis. Projecting noise exposure at grade crossings is discussed in the next section.

Grade Crossings

Freight trains are required to sound their horns before most at-grade rail-street crossings. The minimum sound level of the horns at a distance of 100 feet in front of the locomotives is specified as 96 dBA by the FRA in Regulation 229.129. In practice, the horns on most freight and Amtrak trains generate maximum levels of 105 to 110 dBA 100 feet in front of the trains. The exact manner in which the horns are sounded varies depending on local and state ordinances. Because of the high noise levels created by train horns, noise exposure will be dominated by horn noise near any grade crossing where sounding the horns is required. Additional noise sources associated with grade crossings are the grade crossing bells that start sounding just before the gates are lowered and idling traffic that must wait at the crossing. This noise is usually insignificant in comparison to the horn noise.

The key components in projecting noise exposure from horn noise are the horn sound level, the duration of the horn noise, the distance of the receiver from the tracks, and the number of trains during the daytime and nighttime hours. Most freight train audible warning devices are air horns. The maximum sound level of the air horns usually can be adjusted to some degree by adjusting the air pressure.

The average horn SELs were used to develop the noise projection model. The average SEL (energy averaged) for Conrail and CSX trains was 111 dBA normalized to a distance of 100 feet from the track centerline. For NS trains, this average SEL was 108 dBA normalized to 100 feet from the track centerline. Figure N-3 shows the projected noise exposure near grade crossings in terms of L_{dn}. The assumptions include:

- Since half of all trains are assumed to go in each direction, half of all horn soundings will occur on each side of the crossing.
- The horns are sounded by all the trains ¼ mile preceding the crossing.
- Train horn SEL at grade crossings is independent of train speed. The normal assumption would be that as train speed decreases, horn SEL would *increase* since the horn noise would last longer as train speed decreases. However, measurements indicate that horn SEL is relatively independent of train speed. This is probably because train operators modify the manner in which they sound the horns based on the train speeds.
- Propagation of horn noise is primarily over soft ground with an average sound energy attenuation rate of 4.5 dBA for each doubling of distance. This attenuation rate is slightly lower than for wheel/rail noise because the horns are located on top of the locomotives, which reduces the attenuation due to ground effect.

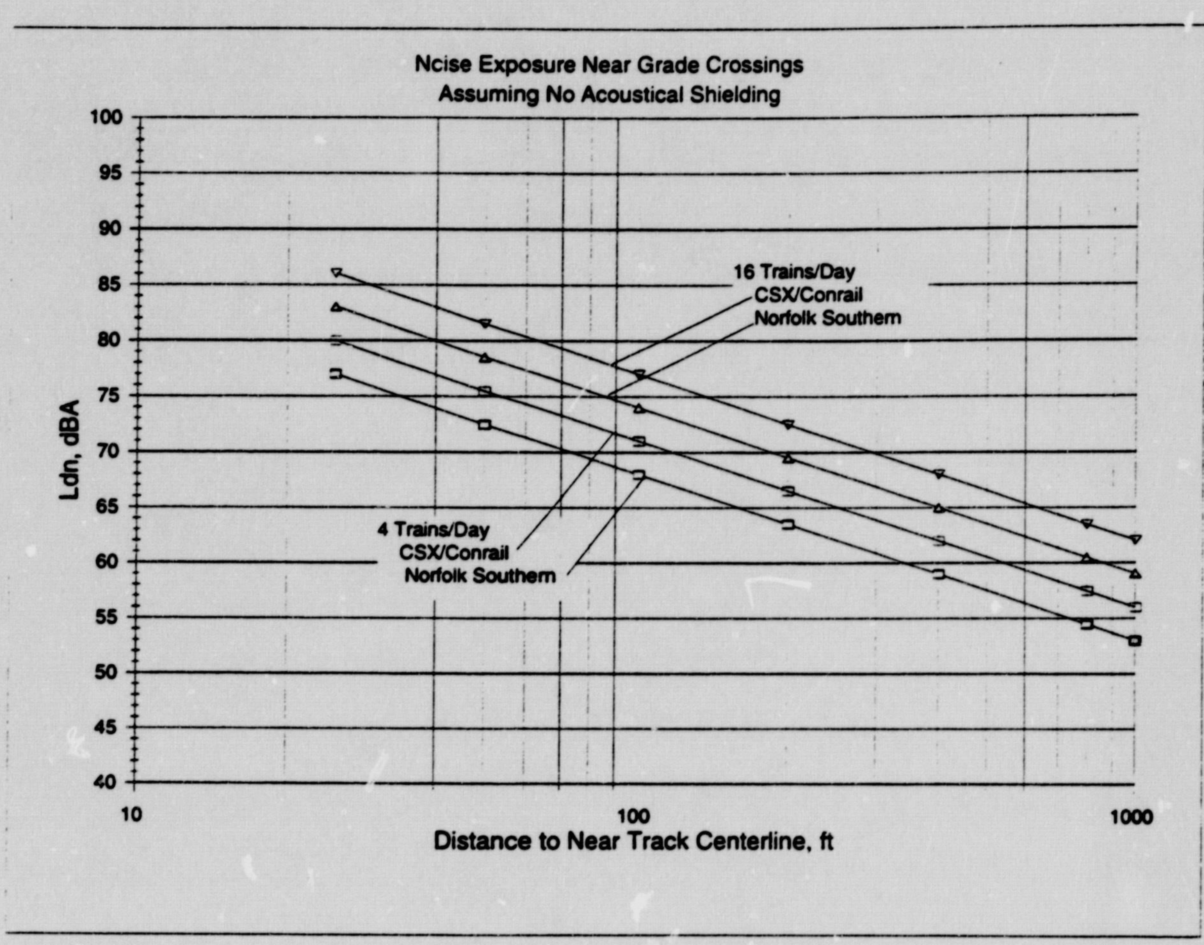
A more detailed model of horn noise would require detailed information about the geometry and operating conditions at each grade crossing.

Figure N-3 shows the noise exposure near grade crossings as a function of distance from the tracks for different numbers of trains per day. Train passbys are assumed to be equally likely during the daytime and nighttime hours, which means that, on average, 9 out of 24 trains pass in the nighttime hours. Following is a comparison of the distances to the L_{dn} 65 dBA contour with and without horns:

Average number of trains per day	Distance to L_{dn} = 65 dBA		
	All trains without horns	Conrail/CSX trains with horns	NS trains with horns
2	65 ft	160 ft	100 ft
4	100 ft	250 ft	160 ft
8	160 ft	400 ft	250 ft
16	240 ft	640 ft	400 ft

These numbers show how crucial audible warnings at grade crossings can be in evaluating potential noise impacts from line-haul freight trains. Since the most common requirement is that train horns be sounded starting ¼ mile from a grade crossing, approximately ½ mile of track is affected at every grade crossing. Because the distance to impact increases by a factor of up to 2.5 times that without grade crossings, the total area exposed to noise exceeding impact thresholds is much greater near grade crossings where horns are sounded.

Figure N-3. Noise Exposure vs. Distance Near Grade Crossings



RAIL YARDS AND INTERMODAL FACILITIES

NOISE IMPACT THRESHOLDS

Noise increases can occur at any location where expanded operations will result in either a significant increase in the rail activities or new noise producing activities. The STB regulations specify that noise studies will be done at: (1) rail yard areas where there will be a 100% or greater increase in carload activity, and (2) any location where the increase in truck traffic will be greater than 10% of Average Annual Daily Traffic or 50 trucks per day on any affected road segment.

The STB regulations [49 CFR 1105.7(e)] specify two types of noise level thresholds for locations where noise studies are performed:

1. An increase in community noise exposure as measured by the Day-Night Equivalent Sound Level (abbreviated L_{dn} or DNL) of 3 dBA or more.
2. L_{dn} of 65 dBA or greater.

The noise increase is to be quantified for all sensitive receptors (schools, libraries, residences, retirement communities and nursing homes) that are in the project area where these thresholds will be surpassed.

The L_{dn} represents an energy average of the A-weighted noise levels occurring during a complete 24-hour period. An increase in L_{dn} of 3 dBA will require a 100% increase in activity, a substantial change in operating conditions, changed equipment, or a shift of daytime operations to the nighttime hours. Nighttime noise often dominates L_{dn} because of a weighting factor added to nighttime noise to reflect most people being more sensitive to nighttime noise. In calculating L_{dn}, the nighttime adjustment makes one event, such as a freight train passby, occurring between 10 p.m. to 7 a.m. equivalent to ten of the same events during the daytime hours.

There are some facilities where the STB threshold for a noise study is exceeded, but the total change in noise exposure would be insignificant. The approach taken was to only look at areas where the projected increase in activity would be expected to cause: (1) more than a marginal change in noise exposure, and (2) cause a significant increase in the number of noise sensitive receptors within the L_{dn} 65 contour. For this study, any increase in L_{dn} less than 2 dBA was considered insignificant. A 2 dBA threshold was selected because:

1. Near railroad facilities, a plus or minus 2 dBA variation in L_{dn} from day to day is common because of the normal variation in factors such as: operating condition, operating procedures, weather, time of day, and equipment maintenance.

2. In most cases, a 2 dBA increase in noise exposure would cause only a small change (approximately 10%) in the number of residences within the L_{dn} 65 contour. This is because noise impacts from railroad facilities tend to be localized to the residences closest to noisy sections of the facility. The acoustical shielding provided by the first row or two of residences is usually sufficient to keep noise exposure below L_{dn} 65 at residences that are farther away.

3. Although a 2 dBA increase in noise exposure is often considered an insignificant change, it was selected as a conservative screening for the study and for previous studies.

Noise Sources

Rail yards and intermodal facilities can have a number of different sources of noise, including:

- Inbound/outbound road-haul and local train operations
- Switch engine operations
- Retarders
- Car impacts

- ..ing Locomotives and refrigeration cars
- Locomotive engine load tests
- Intermodal yard equipment
- Trucks operating within intermodal facilities

As an initial approximation, the change in noise exposure that would be caused by these activities can be estimated using the following relationship:

$$\text{Change in } L_{dn} = 10 \log(\text{future volume/existing volume})$$

Although the land use in the immediate vicinity of each facility and the proximity to noise sources needs to be considered, this scaling gives an indication of which facilities have the potential of exceeding thresholds. For most facilities, the projected increase in noise exposure is relatively modest, indicating that there would be no significant increase in noise exposure.

Approach

The general approach that has been used to evaluate potential noise levels for rail yards and intermodal facilities where the projected activities exceed the STB thresholds is:

1. Determine whether the projected change in activity is likely to cause a 2 dB or greater change in L_{dn}. If not, no additional noise study was performed.

2. Through review of maps, aerial photographs, and site visits, determine if there are any noise sensitive receptors in the vicinity of the installation. Many facilities are in industrial areas and have no noise sensitive land uses nearby, which means that there will no noise impacts. For others, using the models described below and generalized assumptions will be sufficient to demonstrate that there will be no noise impacts.

3. Estimate the existing and future L_{dn} levels for any noise sensitive land uses near the facility where, based on the generalized assessment in step 2, noise impact appears likely. The procedures used to estimate noise exposure have been determined on a case-by-case basis. When feasible, noise measurements have been performed to estimate the contributions from the various yard noise sources, to develop noise modeling information, and to estimate ambient noise from non-rail sources such as highways and industrial facilities. The noise measurements are particularly important for facilities in which the information on facility activities is insufficient to use the models described below.

4. Estimate the number of sensitive receptors within the 65 dBA L_{dn} contour for existing and projected future volumes of activity or where L_{dn} will increase by at least 3 dBA. The counts were developed using USGS maps, aerial photographs, and information from site visits.

Noise Projection Models

This section describes the noise models used for rail yards, intermodal and automotive facilities. All of the models described in this section are common acoustic models defined in acoustics literature or have been used extensively on previous HMMH and Wyle Laboratories, Inc (Wyle) projects requiring analysis of rail yard noise. Each model projects noise from a specific source, such as switch engines and retarders, based on a reference noise level derived from measurements, either measurements performed as part of this project, measurements performed as part of previous HMMH and Wyle projects, or data available in the literature. Most of the available data on rail yards is from EPA and DOT/FRA sponsored studies that were performed 15 to 20 years ago. The loudest noise sources, such as squeal from hump yard retarders, have not substantially changed since these studies. Where equipment has changed, the change has generally been in the direction of lower noise emissions, which means that there could be cases where supplementing the available reference levels with newer data would reduce the projected noise exposure.

Noise from railroad yards was studied extensively in the 1970's by the EPA as part of their efforts to develop noise emission regulations for interstate rail carriers. The results and models developed in these studies were published in a background document in 1979 ("Background Document for Final Interstate Rail Carrier Noise Emission Regulation: Source Standards," EPA 550/9-79-21, Dec. 1979). Additional data for yard noise sources was compiled for DOT/FRA in 1982 ("Handbook for the Measurement, Analysis and Abatement of Railroad Noise," DOT/FRA/ORD-82/02-H, January 1982). Projections of rail yard noise for the acquisition of Conrail have been based on these models, supplemented by more recent data when available. The models allow calculating L_{dn} for a variety of sources based on empirically-derived source noise levels, yard activity levels and distance. Models have been developed for the following yard noise sources:

- Inbound/Outbound Road-Haul and Local Train Operations
- Switch Engine Operations
- Retarders
- Car Impacts
- Idling Locomotives and Refrigeration Cars
- Locomotive Engine Load Tests
- Intermodal Yard Equipment

The three general equations used to calculate L_{dn} at a given location are as follows:

$$L_{dn} = SEL + 10\log_{10}(N_d + 10N_n) - 49.4 - 10\log_{10}(D/100)^n - k(D-100) \quad (1)$$

$$L_{dn} = Lmax + 10\log_{10}(NH_d + 10NH_n) - 13.8 - 20\log_{10}(D/100) - k(D-100) \quad (2)$$

$$L_{dn} = Lmax + 10\log_{10}(NH_d + 10NH_n) - 13.8 - 20\log_{10}(D/100) - k(D-100) + 8\log_{10}(1.33N_1) + 10\log_{10}(NR) \quad (3)$$

where:

SEL = Source Sound Exposure Level at 100 feet, dBA

N_d = Number of daytime noise events (7 a.m. to 10 p.m.)

N_n = Number of nighttime noise events (10 p.m. to 7 a.m.)

n = 1 for moving sources

= 2 for stationary sources

D = Distance from noise source, feet

k = Combined air/ground sound absorption coefficient, dBA/ft

L_{max} = Average maximum source noise level, dBA

NH_d = Number of hours of source operation during the daytime (7 a.m. to 10 p.m.)

NH_n = Number of hours of source operation during the nighttime (10 p.m. to 7 a.m.)

N_1 = Number of noise sources per row

NR = Number of rows of noise sources

Equation 1 models moving or stationary transient point sources, Equation 2 is for stationary steady-state point sources, while Equation 3 is a truncated line source model applicable for groups of stationary point sources. A listing of the appropriate equations and input parameters for each of the rail yard noise sources is given in Table N-11, and more detailed modeling assumptions for each of these sources are described below.

Table N-11
Modeling Parameters for Rail Yard Noise Projections

Noise Source		Eqn. No.	Noise Level (dBA)		Basic Activity Level Parameters	n	k (dBA/ft)	Source Grouping	
			SEL	Lmax				N	NR
Train Operations		1	95	78	# Trains/Day	1	0.0020	--	--
Hump Switch Engines		1	95	78	# of Cars Classified/Day	1	0.0010	--	--
Other Switch Engines	Hump Yard								
	Flat Yard		98	83					
Retarders	Active	1	100	103	# of Cars Classified/Day	2	0.0100	--	--
	Inert (Non-Releasable)		90	93					
Car Impacts		1	89	94	# of Cars Classified/Day	2	0.0050	--	--
Idling Equipment	Locomotives	3	--	67	# of Hours of Operation/Day	--	0.0025	2	3
	Refrigerator cars						0.0035	5	4
Locomotive Load Tests		2	--	78	# of Hours of Operation/Day	--	0.0020	--	--
Intermodal Yard Equipment	Cranes	1	92	74	# of Trailers and Containers Handled/Day	2	0.0025	--	--
	Trailer-mounted refrigeration units	2	--	67	# of Hours of Operation/Day	--	0.0035		

Inbound/Outbound Road-Haul and Local Train Operations

These train operations are modeled as moving point sources at a speed of about 5 mph, dominated by locomotive engine noise. The source noise levels given in Table N-11 are from the EPA background document. It is assumed that local and road haul trains are powered by one and three engines, respectively, and that the train arrivals and departures are uniformly distributed over the daytime and nighttime periods. Thus:

N_d = (15/24)[(3)(# Road-Haul Trains/Day) + # Local Trains/Day] and
N_n = (9/24)[(3)(# Road-Haul Trains/Day) + # Local Trains/Day]

For modeling purposes, train operations are taken to be split between two locations, with inbound road-haul trains located in the receiving area of the yard and with outbound road-haul trains and local trains located in the departure area.

Switch Engine Operations

Switch engine operations are modeled as moving point sources which operate in the receiving and departure yards at a speed of about 4 mph, with operations uniformly distributed over the daytime and nighttime periods. The source noise levels given in Table N-11 are from the EPA background document. For hump switch engine operations, located in the receiving yard, it is assumed that the average cut of cars to be humped contains 50 cars and that there are two engine passbys per hump operation. For other switch engine operations in hump yards, assumed to be located in the departure area, it is assumed that 10 cars are handled per switch engine and that there are two engine passbys per operation. For switch engine operations in flat yards, it is assumed that operations are split between two locations, one in the receiving yard and one in the departure yard, that 5 cars are handled per switch engine and that there are two passbys per operation. Thus:

N_d = (15/24)(2/C)(# of Cars Classified/Day) and
N_n = (9/24)(2/C)(# of Cars Classified/Day)

where: C = cars per switch operation
= 50 for Hump Switch Engine Operations
= 10 for Other Switch Operations in Hump Yards
= 5 for Switch Engine Operations in Flat Yards

Retarders

Retarders are modeled as grouped point sources located in the classification area of the yard, and it is assumed that retarder noise is uniformly distributed over the daytime and nighttime periods. The source noise levels given in Table N-11 are based on a weighted average of the data bases reported in the EPA and DOT/FRA background documents. Active retarders, including master, group, intermediate and track retarders, are grouped at a single location at the geometric center of the retarders. For these, it is assumed that each car classified passes two retarders, on average, and that retarder squeal occurs about 50 percent of the time. For non-releasable inert retarders, grouped at a single point at the opposite end of the classification area, it is assumed that each car classified passes through one retarder, and that retarder squeal occurs about 85 percent of the time. Thus:

N_d = (15/24)(F)(# of Cars Classified/Day) and

N_n = (9/24)(F)(# of Cars Classified/Day)

where: F = 1.0 for Active Retarders

= 0.85 for Non-Releasable Inert Retarders

Releasable inert retarders are excluded from the noise model since they can be locked open so that they do not emit noise when rail cars are pulled through them.

Car Impacts

Car impacts are modeled as stationary point sources, grouped at two locations in the classification area of the yard. The source noise levels given in Table N-11 are based on a weighted average of the data bases reported in the EPA and DOT/FRA background documents. It is assumed that the total number of car impacts is equal to about half of the number of cars classified per day, and that the impacts are distributed uniformly over the daytime and nighttime periods. Thus:

N_d = (15/24)(0.5)(# of Cars Classified/Day)

N_n = (9/24)(0.5)(# of Cars Classified/Day)

Idling Locomotives and Refrigeration Cars

Idling locomotives and refrigeration cars are modeled as grouped point sources located in the classification area of the yard, using a truncated line source model. The source noise levels given in Table N-11 are from the EPA background document. L_{dn} is calculated using Equation 3 based on the hours of daytime (NH_d) and nighttime (NH_n) idling operation, assuming a prototypical arrangement of noise sources.

Locomotive Engine Load Tests

Load test cells are modeled as stationary point sources located in the classification area of the yard. Although 1979 EPA data suggest a noise source level (L_{max}) of 90 dBA at 100 feet, the present model assumes compliance with subsequent EPA Railroad Noise Emission Standards (40 CFR Part 201) which specify a maximum level of 78 dBA at 100 feet. Where specific information is unavailable, EPA suggests an assumption of 6 hours of testing per day, with NH_d = 4 hours and NH_n = 2 hours.

Intermodal Yard Equipment

Noise sources that may be significant at an intermodal facility include TOFC/COFC cranes and trailer-mounted refrigeration units, which are modeled as stationary point sources located in the intermodal yard area. The source noise levels given in Table N-11 are based on HMMH and Wyle file data. For cranes, L_{dn} is calculated using Equation 1, based on the number of trailers and containers handled per day. Thus:

N_d = (15/24)(# of Trailers and Containers Handled /Day)
N_n = (9/24)(# of Trailers and Containers Handled /Day)

For refrigeration units, L_{dn} is calculated using Equation 2, based on the number of units and the number of hours of daytime and nighttime operation. Thus:

NH_d = (# of units)(# of hours of operation during the day)
NH_n = (# of units)(# of hours of operation at night)

Noise from on-site truck traffic was estimated using the following relationship:

$L_{dn} = 42 - 15log(D/450) + 10log(N_{total}) - 7.4$ (for 24-hour operation of facility)

$L_{dn} = 42 - 15log(D/450) + 10log(N_{total}) - 13.8$ (for daytime only operation)

where:

- D = Distance from acoustic center of facility in feet
- N_{total} = Average number of daily operations

Where the number of hours of operation during the daytime and nighttime are known, then

$L_{dn} = 28.2 - 15log(D/450) + 10log[(H_d + 10 H_n)N_{total}/(H_d + H_n)]$

where:

- H_d = the number of hours of operation during the daytime (7:00 a.m. to 10:00 p.m.)
- H_n = the number of hours of operation during the night (10:00 p.m. to 7:00 a.m.)

The above formulas are based on measurements at a NS intermodal facility in Kansas City that were performed by Wyle Labs. The formulas are based on a best-fit linear regression between hourly Leq and the hourly number of operations over a 24-hour measurement period.

Off-site truck traffic noise is projected based on the FHWA Highway Traffic Noise Prediction Model ("FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December 1978). This model also includes shielding estimates that can be applied to all of the above rail yard noise sources.

APPENDIX C

TRANSPORTATION METHODOLOGY

The STB regulations at 49 CFR 1105.7(e)(2) require a description of the effects of the proposed acquisitior of Conrail by CSX and NS on regional or local transportation systems and patterns and an estimate of the amount of passenger or freight traffic which might be diverted to other transportation systems or modes. The effects on the national transportation system were also analyzed. For purposes of this analysis, the local transportation system was defined as the local road network between the affected facility and the regional transportation system. The regional transportation system was defined as major regional and/or metropolitan roads and state highways. The national transportation system was defined as the interstate highway system.

The primary transportation-related issues associated with the proposed acquisition will be the abandonment of rail lines, changes in activity at intermodal facilities and expected diversions of freight and other commodities from truck to rail. Therefore, transportation analyses were conducted for the following components of the expanded CSX, expanded NS and Shared Areas:

- Rail-line abandonments;
- Changes in operation at intermodal facilities; and,
- Truck-to-rail diversions.

RAIL LINE ABANDONMENTS

Rail line abandonments generally result in rail-to-truck or rail-to-rail diversions of commodities. For this evaluation, rail-to-rail diversions (if any) are treated as no change in transportation impacts. Rail-to-truck diversions (if any) are described individually for each abandonment.

CHANGES IN ACTIVITY AT INTERMODAL FACILITIES

Activity at several intermodal facilities is expected to increase due to acquisition-related effects including truck-to-rail diversions and extended haul, single-line service. Thus, truck traffic volume would be affected on both the local and regional transportation systems in the vicinity of these facilities.

The analysis of impacts to local and regional transportation systems was conducted for facilities that are expected to experience an increase of 50 trucks per day or more. For all intermodal facilities, CSX and NS personnel estimated increases or decreases in "lift" activity, each lift representing one intermodal container lifted onto or off of a rail car. Truck traffic volume changes were assumed to be directly correlated to the change in lift activity at each facility. The total number of lifts per year was divided by 362 to obtain a daily lift estimate, since intermodal facilities generally operate 7 days per week, 24 hours per day, 362 days per year. The daily lift estimate was used to calculate the number of truck visits using a conversion factor of 1.55 lifts per truck for CSX and 1.5 lifts per truck for NS. These conversion factors were developed by CSX and NS personnel and account for situations where trucks may enter or leave a facility without a load. These factors represent averages for each system, which were used unless site specific estimates were available. Each additional truck corresponds to two truck trips that would be added to the average daily traffic (ADT) volume of the local and regional transportation systems.

Local and Regional Transportation Impacts

For intermodal facilities expected to experience an increase of 50 trucks per day or more, the impacts from increased truck traffic on the local and regional transportation systems were analyzed in terms of a percent increase in ADT. Where available, ADT data was obtained from local or state transportation officials for the most likely route(s) that a truck driver would use between the facility and the nearest interstate highway. Impacts on ADT volumes were calculated by adding the additional truck-trips per day to the ADT of the local and regional roads identified along the most likely truck route(s).

Where more than one likely truck route was identified, two scenarios of impacts were calculated. The first scenario represents an average impact calculation, and assumes that the truck traffic would be dispersed among each of the routes identified. In this scenario, ADTs from all routes to the facility were summed and compared to the predicted truck traffic volume increase to arrive at an average ADT impact, according to the following formula:

$$\text{Average ADT Impact (\%)} = \frac{(\text{ADT Route \#1} + \text{ADT Route \#2} \ldots + \text{ADT Route \# n}) + \text{Additional Truck Trips}}{(\text{ADT Route \#1} + \text{ADT Route \#2} \ldots + \text{ADT Route \#n})}$$

The second scenario represents a worst case scenario. In this scenario, it was assumed that on any given day, all of the truck traffic would follow a single route to and from the facility. So, the percent increase in ADT was calculated for each of the identified routes, according to the following formula:

$$\text{Worst Case ADT Impact (\%)} = \frac{\text{ADT Route \#n} + \text{Additional Truck Trips}}{\text{ADT Route \#n}}$$

TRUCK-TO-RAIL DIVERSIONS

Systemwide impacts to the national transportation system were estimated based on the truck-to-rail diversion studies conducted by CSX and NS. These studies evaluated the number of truck loads of freight or commodities that are expected to be diverted from long-distance truck haul to rail transport as a result of the proposed acquisition. Origin-destination data provided in these studies were used to estimate truck miles removed from the national transportation system as a result of diversions to rail transport, with the associated benefits to the interstate highway system.

APPENDIX D

SAFETY METHODOLOGY

SAFETY METHODOLOGIES

Safety impacts are discussed in the following general categories:

- Rail/highway grade crossing accidents;
- Increased delays at grade crossings;
- Train accidents, derailments, and other incidents;
- Shipments of hazardous commodities; and
- Hazardous waste sites and hazardous material releases.

Potential public health and safety impacts to be considered in this analysis are those that may occur as a result of significant changes in the operations of the expanded CSX and NS systems compared to current operations of the individual entities.

The safety aspects of the governing regulation are addressed qualitatively using information compiled by the U.S. Department of Transportation (DOT) and the Federal Railroad Administration (FRA). This information generally is shown in government documents as industry-wide averages or totals, and is used to indicate potential impacts that may result from the acquisition. Where possible, information provided to the FRA by CSX, NS, and Conrail, identified in the government reports, will be used to compare industry-wide averages with the histories of the individual railroads.

Average accident rates at public, at-grade crossings, based on Average Daily Traffic (ADT) counts and daily train frequency, were obtained from the FRA. ADT counts for road crossings on line segments requiring analysis also were obtained from the FRA. Crossings with ADT counts over 5,000 on affected line segments will be listed in the ER.

Comparisons of base-period operations for the year 1995 (the last full year of information available from the FRA) with anticipated operations following the acquisition will include the following factors:

- Anticipated rail traffic increases meeting STB thresholds on a segment basis;

- Potential rail traffic changes on a systemwide basis for the CSX, NS, and Shared Areas.

- Additional construction activities planned to connect CSX, NS, and Shared Areas trackage.

- Potential changes in the frequency of hazardous materials shipments, the types and quantities of hazardous materials transported, and contingency plans dealing with releases (no changes are anticipated); and

- Information concerning hazardous waste sites.

PUBLIC HEALTH AND SAFETY

Railroad operations affect public health and safety when accidents occur. Delays also occur at grade crossings (which could affect the time required to respond to an emergency, or affect the judgment of motorists concerning their ability to cross the tracks safely); and releases of hazardous materials sometimes occur.

Passenger service will be indicated on rail lines with increased traffic which meets the STB thresholds. Safety impacts will be studied on those lines based on this methodology.

GRADE CROSSINGS

Grade Crossing Safety

FRA's national statistics on annual accident rates at grade crossings, based on ADT counts and daily train frequency, are presented below (*Highway-Rail Crossing Accident/Incident and Inventory Bulletin, No. 17, Calendar Year 1994*, USDOT, FRA, July 1995) and will be presented in the ER. For segments requiring analysis, information concerning ADT counts at crossings has been obtained from the FRA. Those public, at-grade crossings with ADT counts over 5,000 on affected line segments will be listed in the ER.

Trains	Annual Average Daily Traffic*	
	5k - 10k	> 10k
3 - 5	0.0382	0.0535
6 - 10	0.0452	0.0619
11 - 15	0.0672	0.0902
16 - 20	0.0746	0.1019
21 - 25	0.1062	0.1046
26 - 30	0.088	0.0822
> 30	0.0711	0.1012

*Grade crossing accidents per year.

Grade Crossing Delays

Delays at grade crossings are a function of the number of trains per day, the time it takes for a train to pass the crossing, and the type of crossing warning device. Traffic delays are assumed to increase linearly with increasing train traffic since no immediate changes to the crossings are anticipated as a result of the proposed acquisition.

The time required for a train to pass a crossing can be determined as follows:

$$TB = \frac{L}{V \times 88} + 0.5$$

where: TB = time required for the train to pass the crossing, in minutes

L = length of the train, in feet

V = train speed in miles per hour

88 = conversion factor from miles per hour to feet per minute

0.5 = an allowance to account for the delay after the last rail car passes.

Based on the assumption that vehicles arrive at a crossing in a uniformly distributed random manner, it can be assumed that the average delay for a particular car or vehicle at a crossing is half the time required for the train to pass the crossing, in addition to the time required for the cars to dissipate after the train has passed. The delay is calculated as follows:

$$TD = 0.5 \times TB + 0.3$$

where: TD = average delay time in minutes

TB = time required for the train to pass the crossing, in minutes

+0.3 = a constant to allow the waiting line of vehicles to dissipate

These equations are presented in the Stanford Research Institute *Guidebook for Planning to Alleviate Urban Railroad Problems*, prepared for the Federal Railroad and Highway Administrations, August 1974, RP-31, Volume 3, Appendix C.

The time required for a train to pass any crossing is dependent on the length of the train and the train speed at that crossing. An average train length was used for calculation purposes (6200 feet for CSX, 5000 feet for NS). Crossing delays were calculated for the average train length for both CSX and NS using train speeds of 10 miles per hour to 60 miles per hour (in 10-mile-per-hour increments). A general table was provided which allowed the reader to determine anticipated delays at the crossings.

TRAIN AND TRUCK ACCIDENTS

In addition to accidents at grade crossings, train accidents can also occur on mainlines, at rail yards, and on industry sidings and other non-mainline tracks. Discussions of the anticipated increase or decrease in the number of accidents after the acquisition were based on rail accidents per train-mile reported in FRA *Accident/Incident Bulletin No. 164.*

Based on industry averages, derailments account for almost 67 percent of all train accidents (both mainline and yard accidents) and approximately 66 percent of all train accidents involving hazardous materials. Industry averages for collisions account for 9 percent of train accidents and 24.5 percent are classified as "other". These percentages were applied to the increase in train accidents to estimate the number of derailments, collisions, and "other" increases.

The number of decreased truck accidents resulting from the Acquisition were estimated using Department of Transportation 1994 statistics on number of large truck crashes per vehicle-mile. The estimated decrease in total truck miles from truck-to-rail diversions were multiplied by the large truck accident rate per vehicle-mile for the number of total crashes, injury crashes and fatal crashes.

HAZARDOUS COMMODITIES

Both railroads adhere to federal regulations governing the transport of hazardous materials. The acquisition will not immediately affect the policies or operation of CSX, NS, or the Shared Areas concerning the manner, type or amount of hazardous materials carried. Therefore, the types and quantities of hazardous commodities carried was not a factor in evaluating the safety impacts of the Conrail acquisition by CSX and NS. However, discussions of the operating practices and histories of CSX, NS, and Conrail pertaining to hazardous commodity shipments were presented in the ER.

HAZARDOUS WASTE SITES AND HAZARDOUS MATERIAL RELEASES

CSX, NS, and Conrail hazardous waste sites will be managed in accordance with applicable federal and state regulations regardless of whether CSX and NS expand their systems. Therefore, only information on hazardous waste sites along segments to be abandoned or in construction areas will be included in the ER. Information concerning hazardous material releases for a 5-year period (1991-1995) will be presented in the ER. Information included in Department of Transportation Hazardous Materials Incident Reports (Form DOT F 5800.1) submitted by CSX, NS, and Conrail to the FRA will be reviewed to determine the number of hazardous material incidents or releases and the location, quantity, and commodity of the release. This information for CSX, NS, and Conrail will be presented in the ER. These types of incidents are not expected to change immediately as a result of the CSX and NS acquisition.

FRA statistics for CSX, NS, and Conrail will be presented and used for a qualitative analysis of train accidents and associated hazardous materials incidents. No significant changes associated with hazardous materials shipments or incidents are anticipated as an immediate result of the acquisition.

APPENDIX E

ENERGY METHODOLOGY

ENERGY METHODOLOGY

The STB's environmental regulations at CFR 1105.7(e)(4) require a description of:

- The effect of the proposed action on the transportation of energy resources and recyclable commodities;
- Whether the proposed action would result in an increase or decrease in overall energy efficiency; and
- The extent to which the proposed action would cause diversions from rail-to-motor carrier (i.e., rail-to-truck diversions).

No significant changes in the transportation of energy-producing materials or recyclable commodities are planned as part of the proposed acquisition. Therefore, a methodology for this requirement is not presented.

In the proposed acquisition, the primary energy efficiency impacts, as measured by changes in diesel fuel consumption, will result from truck-to-rail diversions.

Truck-to-Rail Diversions

The following data were used to develop an estimate for the change in diesel fuel consumption from truck-to-rail diversions:

- CSX and NS fuel consumption and gross ton-mile data from 1995 and 1996, which were used to establish an estimate of fuel efficiency for the CSX and NS systems.
- Estimates for projected gross ton-miles diverted from truck and the corresponding gross ton-miles diverted to rail for the expanded CSX and the expanded NS systems. These estimates were provided by CSX and NS.

- An estimated truck fuel efficiency factor of 140 gross ton-miles per gallon, which represents an average value for trucks involved in medium-distance and long-distance hauls of various commodities (Abacus Technology Corp., 1991).

These data and assumptions were used to calculate the estimated overall change in the number of gallons of diesel fuel consumed per year, using the following formulas:

$$\text{Fuel consumed by rail (Post-acquisition)} = \frac{\text{Gross ton-miles diverted to rail}}{\text{Average fuel efficiency for rail system}}$$

$$\text{Fuel consumed by trucks (Pre-acquisition)} = \frac{\text{Gross ton-miles diverted from truck}}{\text{Average fuel efficiency for trucks}}$$

Change in fuel consumed = Fuel consumed by rail - Fuel consumed by trucks

Train Traffic, Rail Yards, and Intermodal Facilities

Estimates for changes in diesel fuel consumption as a result of changes in train traffic volumes and reroutes, rail yard operational changes and intermodal facility operational changes were deemed to be minor compared to the change in fuel consumption resulting from truck-to-rail diversions. Therefore, a methodology is not presented.

Rail-to-Truck Diversions

Where the STB thresholds (1,000 rail carloads a year or an average of 50 rail carloads per mile per year for any part of the affected lines), as stated in 49 CFR 1105.7(e)(4)(iv), for rail-to-truck diversions were met, the change in diesel fuel consumption from rail-to-truck diversions was estimated using the following data:

- CSX, NS, and Conrail fuel consumption and gross ton-mile data from 1995 and 1996, which were used to establish a post-acquisition estimate of fuel efficiency for the expanded CSX and NS systems;
- Estimates for projected gross ton-miles diverted from rail and the corresponding gross ton-miles diverted to truck for the expanded CSX and NS systems. These estimates were provided by CSX and NS; and
- An estimated truck fuel efficiency factor of 140 gross ton-miles per gallon, which represents an average value for trucks involved in medium-distance and long-distance hauls of various commodities (Abacus Technology Corp., 1991).

These data and assumptions were used to calculate the estimated overall change in the number of gallons of diesel fuel consumed per year, using the following formulas:

$$\text{Fuel consumed by rail (Pre-acquisition)} = \frac{\text{Gross ton-miles diverted from rail}}{\text{Average fuel efficiency for rail system}}$$

$$\text{Fuel consumed by trucks (Post-acquisition)} = \frac{\text{Gross ton-miles diverted to truck}}{\text{Average fuel efficiency for trucks}}$$

$$\text{Change in fuel consumed} = \text{Fuel consumed by trucks} - \text{Fuel consumed by rail}$$

APPENDIX F

CSX HAZARDOUS MATERIALS REPORTABLE INCIDENTS

NS HAZARDOUS MATERIALS REPORTABLE INCIDENTS

CONRAIL HAZARDOUS MATERIALS REPORTABLE INCIDENTS

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
01/08/91	Flint, MI	Liquified petroleum gas	1 lb
01/08/91	Riverdale, IL	Phosphoric acid	1 gal
01/09/91	Evansville, IN	Butane	100 gals
01/09/91	Chicago, IL	Phosphoric acid	1 gal
01/11/91	Orlando, FL	Coal tar	15000 gals
01/14/91	Worthville, KY	Ammonium nitrate	1800 lbs
01/14/91	Cullman, AL	Hexamethylenediamine	1 gal
01/15/91	Birmingham, AL	Sulfuric acid	10 gals
01/16/91	Savannah, GA	Anhydrous ammonia	6 lbs
01/17/91	Montgomery, AL	Sodium hydroxide solution	1 gal
01/17/91	Pensacola, FL	Combustible liquid NOS	1 gal
01/18/91	Coosa Pines, AL	Turpentine	5 gals
01/24/91	Knoxville, TN	Liquid petroleum gas	1 lb
01/26/91	Atlanta, GA	Sulfuric acid	400 gals
01/28/91	Montgomery, AL	Hydrochloric acid	0 gal*
02/03/91	Baldwin, FL	Methanol	0 gal*
02/05/91	Bainbridge, GA	Sodium hydroxide	1 gal
02/06/91	Atlanta, GA	Hydrochloric acid	1 gal
02/09/91	Flint, MI	Isobutane	1 gal
02/09/91	Flint, MI	Liquified petroleum gas	1 gal
02/12/91	Charleston, SC	Sulfuric acid, spent	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
02/16/91	Flint, MI	Liquified petroleum gas	1 lb
02/20/91	New Orleans, LA	Sulfuric acid	1 gal
02/21/91	Riverdale, IL	ANH ammonia	1 gal
02/22/91	Ravenna, KY	Ethyl ether	2 gals
02/22/91	Port Huron, MI	Styrene monomer, INH	1 gal
02/23/91	Flint, MI	Petroleum naphtha	1 gal
02/24/91	Jacksonville, FL	Hydrochloric acid	1 gal
03/02/91	Montgomery, AL	Hydrochloric acid	1 gal
03/05/91	Copperhill, TN	Sulfuric acid	0 gals*
03/05/91	Copperhill, TN	Sulfuric acid	25 gals
03/05/91	Cincinnati, OH	Hazardous waste NOS	0*
03/05/91	Chicago, IL	Nickel sulfate	300 lbs
03/08/91	Flint, MI	Isobutane	0 lbs*
03/09/91	Baltimore, MD	Coal tar distillate	2 gals
03/10/91	Cowan, TN	Sulfuric acid	0*
03/11/91	Cincinnati, OH	Vinyl acetate	0 gals*
03/11/91	Cincinnati, OH	Coal tar distillate	0 gals*
03/11/91	Cincinnati, OH	Hazardous substance NOS	0 gals*
03/11/91	Tampa, FL	Petroleum naphtha	1 gal
03/13/91	Chattanooga, TN	FAK Hazmat	0*
03/15/91	Rocky Mt., NC	Sulfuric acid	0*
03/15/91	Riverdale, IL	Phosphoric acid	0*

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
03/23/91	Jacksonville, FL	Pulp mill liquid	10 gals
03/26/91	Mobile, AL	Sodium hydroxide	1 gal
03/26/91	Pensacola, FL	Hexamethylenediamine	1 gal
03/28/91	Columbus, OH	Diethyl phthalate	1 lb
03/29/91	Russell, KY	Hydrochloric acid	5 lbs
03/29/91	New Orleans, LA	Sodium aluminate	1 gal
04/02/91	Mobile, AL	Sulfuric acid	1 gal
04/04/91	Columbus, OH	Phosphoric acid	1 gal
04/05/91	Saginaw, MI	Sodium hydrosulphide	1 gal
04/06/91	Ft. Lauderdale, FL	Ferric chloride solution	500 gals
04/08/91	Port Huron, MI	Styrene monomer	1 gal
04/15/91	Flint, MI	Alcohol NOS	2 gals
04/22/91	Columbus, OH	Phosphoric acid	1 gal
04/23/91	Montgomery, AL	Methyl alcohol	1 gal
04/25/91	Atlanta, GA	Oleum	1 lb
04/26/91	Gary, IN	Xylene	0*
04/29/91	Chicago, IL	Phosphoric acid	0 gals*
05/02/91	Russell, KY	Gasoline	1 gal
05/02/91	Lakeland, FL	Alkaline liquid NOS	1 gal
05/03/91	Atlanta, GA	Oleum	1 lb
05/03/91	Savannah, GA	Propyl acetate	1 gal
05/08/91	Knoxville, TN	Gasoline	0*

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
05/14/91	Mt. Vernon, IN	Phenol	0 gal*
05/14/91	Hamlet, NC	Flammable liquid, NOS	5 gals
05/15/91	Charleston, SC	Denatured alcohol	500 gals
05/15/91	Columbus, OH	Phosphoric acid	0*
05/16/91	Chickamauga, TN	Styrene monomer	1 gal
05/17/91	Pensacola, FL	Combustible liquid NOS	1 gal
05/17/91	Nashville, TN	Sulfuric acid	0 gal*
05/18/91	Flint, MI	Styrene	10 gals
05/23/91	Port Huron, MI	Anhydrous ammonia	0 lbs*
05/23/91	Lima, OH	Isobutane	1 gal
05/23/91	Lima, OH	Corrosive liquid NOS	1 gal
05/24/91	Columbus, OH	Phosphoric acid	2 gals
05/24/91	Cincinnati, OH	Styrene monomer	1 gal
05/25/91	Atlanta, GA	Oleum	1 gal
05/26/91	Dearborn, MI	Hydrofluosilicic acid	20 gals
05/29/91	Wilard, OH	Ferric chloride	30 gals
06/02/91	Mobile, AL	Ethyl alcohol	5 gals
06/03/91	Nashville, TN	Methanol	5 gals
06/03/91	Willard, OH	Hydrofluosilicic acid	10 gals
06/04/91	Rocky Mount, NC	Nitrating acid mix	2 gals
06/04/91	New Orleans, LA	Xylene	20 gals
06/04/91	Flint, MI	Waste flammable liquid	0 gals*

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
06/05/91	Cave City, KY	Liquid petroleum gas	0*
06/05/91	Cave City, KY	Dimethylamine Anhydrous	0*
06/05/91	Cave City, KY	Trimethylamine	0*
06/05/91	Cave City, KY	Methanol	0*
06/05/91	Cave City, KY	Ethylene oxide	0*
06/05/91	Cave City, KY	Ammonium nitrate	0*
06/05/91	Cave City, KY	Ammonium nitrate	100 tons
06/06/91	Atlanta, GA	Diesel fuel additive	1 gal
06/06/91	Cincinnati, OH	Hydrofluorosilicic acid	1 gal
06/07/91	Mobile, AL	Butadiene, inhibited	1 lb
06/08/91	Camak, GA	Oleum	1 lb
06/12/91	Haupstadt, IN	Anhydrous ammonia	0*
06/12/91	Haupstadt, IN	Anhydrous ammonia	5 lbs
06/16/91	Willard, OH	Argon	0 lbs*
06/17/91	Jacksonville, FL	Polysiloxane	5 gals
06/18/91	Savannah, GA	Anhydrous ammonia	1 gal
06/19/91	Atlanta, GA	Sulfuric acid	1 gal
06/19/91	Baldwin, FL	Hydrogen peroxide solution	1 gal
06/20/91	Montgomery, AL	Carbon dioxide	1 gal
06/21/91	New Castle, PA	Carbon dioxide	20000 gals
06/22/91	Hamlet, NC	Methyl alcohol	1 gal
06/22/91	Jacksonville, I L	Lacquer	2 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
06/24/91	Farmersburg, IN	Sulfuric acid	5 gals
06/25/91	Columbus, OH	Carbon dioxide	10 lbs
06/25/91	Cincinnati, OH	Vinyl acetate	0*
06/27/91	Columbus, OH	Carbon dioxide	0*
06/27/91	Sarnia, ON	Isobutylene	2 lbs
06/30/91	Mobile, AL	Methanol	10 gals
07/01/91	Baldwin, FL	Anhydrous ammonia	0*
07/01/91	Baldwin, FL	Anhydrous ammonia	2 lbs
07/01/91	Russell, KY	Carbon dioxide	10 lbs
07/02/91	Rocky Mount, NC	Pine oil	60 gals
07/02/91	Brunswick, MD	Hydrochloric acid	0*
07/02/91	Luke, MD	Sulphuric acid	5 gals
07/03/91	Atlanta, GA	Hydrochloric acid	5 gals
07/03/91	Jacksonville, FL	Hydrogen peroxide	1 gal
07/03/91	Rocky Mt., NC	Sulfuric acid	1 gal
07/06/91	Mobile, AL	Hydrochloric acid	1 gal
07/09/91	Detroit, MI	Phosphoric acid	10 gals
07/09/91	Lima, OH	Butane	1 lb
07/10/91	Columbus, OH	Carbon dioxide	25 lbs
07/11/91	New Orleans, LA	Sulfur, molten	1 gal
07/11/91	Hamlet, NC	Hydrochloric acid	1 gal
07/11/91	Ashland, KY	Petroleum naphtha	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
07/12/91	Jacksonville, FL	Ferric chloride	50 gals
07/14/91	Russell, KY	Petroleum naphtha	1 gal
07/18/91	Evansville, IN	Phosphoric acid	1 lb
07/18/91	East Chicago, IL	Isobutane	0*
07/19/91	Russell, KY	Sodium hydrosulfide	5 gals
07/19/91	Augusta, GA	Oleum	1 lb
07/19/91	Augusta, GA	Oleum	1 lb
07/22/91	Russell, KY	Nitric acid	10 gals
07/22/91	Waycross, GA	Pulp mill liquid	0 gals*
07/23/91	Detroit, MI	Vinyl chloride	0 gals*
07/24/91	Pensacola, FL	Sulfuric acid	0 gals*
07/24/91	Tallahassee, FL	Phosphoric acid	3500 gals
07/24/91	Russell, KY	Nitric acid	1 gal
07/27/91	Jacksonville, FL	Chlorobenzene petroleum	15 gals
07/27/91	Jacksonville, FL	Chlorobenzene petroleum	25 gals
07/28/91	Savannah, GA	Combustible liquid NOS	0 gals*
07/29/91	Detroit, MI	Acetic acid	0 gals*
07/29/91	Mobile, AL	Hyrochloric acid	1 gal
07/31/91	Evansville, IN	Acetone	5 gals
07/31/91	Evansville, IN	Phenol	0*
07/31/91	Evansville, IN	Phenol	2 gals
07/31/91	Cleveland, OH	Sodium hydroxide	0 gals*

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
07/31/91	Port Huron, MI	Styrene monomer	0 gals*
08/02/91	Montgomery, AL	Sulfuric acid	1 gal
08/02/91	Montgomery, AL	Pulp mill liquid	5 gals
08/03/91	Atlanta, GA	Methanol	2 gals
08/03/91	Waycross, GA	Sulfuric acid	5 gals
08/03/91	Calhoun, GA	Styrene monomer	3 gals
08/03/91	Acme, NC	Sulfur dioxide	5 lbs
08/09/91	Knoxville, TN	Sulfuric acid	0*
08/09/91	Rocky Mount, NC	Flammable liquid NOS	1 gal
08/21/91	New Orleans, LA	Sulfuric acid	1 gal
08/26/91	Bridgeport, AL	Carbon dioxide	0 lbs*
08/27/91	Flint, MI	Liquid petroleum gas	10 lbs
08/27/91	New Orleans, LA	Sodium hydroxide	1 gal
08/28/91	Chattanooga, TN	Hydrochloric acid	1 gal
08/29/91	Parkersburg, WV	Hexamethylenediamine	0*
08/30/91	Grand Rapids, MI	Waste flammable, liquid NOS	1 gal
08/30/91	Charlotte, NC	Hydrochloric acid	1 gal
09/01/91	Dearborn, MI	Sulphuric acid	0 gals*
09/03/91	Sarnia, ON	Chlorosulphonic acid	1 gal
09/05/91	Montgomery, AL	Sodium hydroxide	1 gal
09/05/91	Columbus, OH	Phosphoric acid, RES	5 gals
09/06/91	Atlanta, GA	Oleum	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
09/06/91	Jacksonville, FL	Acid batteries	1 gal
09/06/91	Hamlet, NC	Methyl alcohol	2 gals
09/07/91	Lakeland, FL	Sulfuric acid	1 gal
09/08/91	Columbus, OH	Carbon dioxide	5 gals
09/12/91	Hamlet, NC	Methyl alcohol	10 gals
09/13/91	Mobile, AL	Sulfuric acid	1 gal
09/13/91	Nashville, TN	Bromine	20 lbs
09/14/91	Dearborn, MI	Creosote-coal tar	0 gals*
09/15/91	Guthrie, KY	Liquid petroleum gas	0*
09/15/91	New Orleans, LA	Ethylene glycol	0*
09/16/91	Catlettsburg, KY	Hydrogen peroxide	0*
09/16/91	Atlanta, GA	Hydrochloric acid	1 gal
09/18/91	New Orleans, LA	Sulfuric acid	1 gal
09/19/91	Fargo, ON	Carbon dioxide	50 lbs
09/19/91	Parkersburg, WV	Alphamethylstyrene	1 gals
09/20/91	Kingsland, GA	Sodium hydroxide	2 gals
09/22/91	New Orleans, LA	Acetic acid	1 gal
09/28/91	Detroit, MI	Phosphoric acid	1 gal
09/29/91	Nashville, TN	LPG	1 gal
09/29/91	Atlanta, GA	Oleum	1 gal
10/03/91	Port Huron, MI	Dimethylformamide	2 gals
10/03/91	Wilmington, NC	Sodium hydroxide	2 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
10/07/91	Hopewell, VA	Sodium hydroxide	1 gal
10/08/91	Pensacola, FL	Sulfuric acid	1 gal
10/08/91	New Orleans, LA	Styrene	1 gal
10/09/91	Columbus, OH	Phosphoric acid	0 gals*
10/10/91	Mobile, AL	Turpentine	1 gal
10/10/91	Hamlet, NC	Methyl alcohol	1 gal
10/12/91	Mobile, AL	Sodium hydroxide	1 gal
10/13/91	Birmingham, AL	Sodium aluminate solution	1 lb
10/13/91	New Orleans, LA	Liquid petroleum gas	1 lb
10/13/91	Locust Point, MD	Petroleum naptha	6562 gals
10/17/91	Montgomery, AL	Sulfuric acid	1 gal
10/20/91	New Orleans, LA	Sodium aluminate solution	1 gal
10/20/91	New Orleans, LA	Ethyl alcohol	5 gals
10/22/91	Baltimore, MD	Petroleum naphtha	1 gal
10/22/91	Detroit, MI	Phosphoric acid	2 gals
10/23/91	Mobile, AL	Pine oil	2 gals
10/27/91	Weathers, AL	Hydrofluorosilicic	9942 gals
10/27/91	Dearborn, MI	Propionic acid	0 gals*
10/30/91	Atlanta, GA	Sulfuric acid	1 gal
11/03/91	New Orleans, LA	Isopropanol	5 gals
11/07/91	Gulfport, MS	Fuel oil	5 gals
11/09/91	Walbridge, OH	Toluene	0 gals*

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
11/11/91	Tampa, FL	Methyl alcohol	5 gals
11/11/91	Baltimore, MD	Petroleum naphtha	1 gal
11/12/91	Cincinnati, OH	Methyl methacrylate	1 gal
11/12/91	Memphis, TN	Diethyl phthalate	1 gal
11/13/91	New Orleans, LA	Corrosive liquid NOS	55 gals
11/14/91	Tampa, FL	Petroleum oil NOS	15 gals
11/14/91	Hulsey, GA	Oleum	1 lb
11/15/91	Cayce, SC	Waste flammable liquid	2 gals
11/17/91	Flint, MI	Butene	1 lb
11/17/91	Waycross, GA	Pulp mill liquid	3 gals
11/17/91	Jacksonville, FL	Oleum	1 lb
11/18/91	Philadelphia, PA	Sulfuric acid	1 gal
11/19/91	Lakeland, FL	Sulfuric acid	1 gal
11/20/91	East Chester, SC	Denatured alcohol	2 gals
11/20/91	Bainbridge, GA	Oil NOS	10 gals
11/21/91	Evansville, IN	Isopropanol	2 gals
11/21/91	Harleyville, SC	Waste flammable liquid	15 gals
11/21/92	Russell, KY	Carbon dioxide	10 lbs
11/22/91	Nashville, TN	Hydrofluoric acid	10 gals
11/23/91	Russell, KY	Propionic acid	5 gals
11/24/91	Erwin, TN	Hydrochloric acid	2 lbs
11/24/91	Dearborn, MI	Flammable liquid NOS	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
11/26/91	Pensacola, FL	Turpentine	1 gal
12/01/91	Hamlet, NC	Argon	1 gal
12/01/01	Cincinnati, OH	Petroleum naphtha	1 gal
12/11/91	Atlanta, GA	Oleum	1 lb
12/13/91	Dothan, AL	Hydrochloric acid	1 gal
12/13/91	New Orleans, LA	Isopropylamine	1 gal
12/16/91	New Orleans, LA	Isopropylamine	0*
12/16/91	Savannah, GA	Propionic acid	20 gals
12/17/91	Palatka, FL	Fuel oil	800 gals
12/18/91	Rocky Mount, NC	Sulfuric acid	2 gals
12/19/91	Cincinnati, OH	Haz. sub. solid NOS	0*
12/19/91	Mobile, AL	Hydrogen peroxide	0*
12/20/91	Cottondale, FL	Fuel oil	3000 gals
12/02/91	Cottondale, FL	Ammonium nitrate	28000 lbs
12/20/91	Cottondale, FL	Ammonium nitrate	189000 lbs
12/20/91	Cottondale, FL	Ammonium nitrate	98000 lbs
12/20/91	East Chicago, IN	Hydrofluorosilicic acid	30 gal
12/20/91	Rocky Mount, NC	Sulfuric acid	0*
12/20/91	Hamlet, NC	Methyl acetoaceatate	0*
12/21/91	Montgomery, AL	Hydrochloric acid	0*
12/23/91	Russell, KY	Butane	5 gal
12/30/91	Russell, KY	Trimethylamine	2 lbs

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
01/09/92	Hamlet, NC	Methyl alcohol	10 gal
01/12/92	Hamlet, NC	Methyl alcohol	3 gals
01/14/92	New Orleans, LA	Sulfuric acid	2 gals
01/18/92	Lakeland, FL	Anhydrous ammonia	50 lbs
01/27/92	Waycross, GA	Sulphate turpentine	1 gal
01/28/92	Louisville, KY	Sulfuric acid	0*
01/28/92	Louisville, KY	Res. flammable liquid NOS	0*
01/30/92	Evansville, IN	Furfural	0*
02/02/92	New Orleans, LA	Sulfuric acid	1 gal
02/07/92	Atlanta, GA	Oleum	1 lb
02/10/92	Portsmouth, VA	Propionic acid	5 gals
02/10/92	Nashville, TN	Sulfuric acid	2 gals
02/11/92	Walbridge, OH	Butyraldehyde	5 gals
02/13/92	Flint, MI	Combustible liquid NOS	1 lb
02/14/92	St. Clair, MI	Liquefied petroleum gas	0 lbs*
02/14/92	Nashville, TN	Sulfuric acid	5 gals
02/15/92	Richmond, VA	Sulfuric acid	2 gals
02/16/92	Winston, FL	Sulfuric acid	2 gals
02/18/92	Cincinnati, OH	Flammable liquid NOS	0*
02/19/92	Tampa, FL	Batteries, Wet W/ACI	3 gals
02/20/92	New Orleans, LA	Sodium aluminate	0 lbs*
02/20/92	New Orleans, LA	Sodium hydroxide	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
02/20/92	Evansville, IN	Benzo A pyrene	0*
02/21/92	Lordstown, OH	Sulfuric acid	2 gals
02/22/92	Lafayette, IN	Oleum	0 gals*
02/22/92	Nashville, TN	Hazardous waste solids NOS	2 gals
02/25/92	Bainbridge, GA	Ammonium nitrate solution	1 gal
02/27/92	Chatham, ON	Butane	0 lbs*
02/29/92	Baltimore, MD	Petroleum naphtha	1 gal
03/01/92	Evansville, IN	Isopropanol	500 gals
03/03/92	Decoursey, KY	Phthalic anhydride	2 gals
03/03/92	Jacksonville, FL	Flammable liquid NOS	1 gal
03/03/92	Hamlet, NC	Hazardous waste, NOS	40000 lbs
03/05/92	Jacksonville, FL	Turpentine	200 gals
03/06/92	Jacksonville, FL	Neopentanoic acid	0*
03/06/92	Grand Rapids, MI	Hydrochloric acid	50 gals
03/07/92	New Orleans, LA	Sulfuric acid	5 gals
03/08/92	Mullins, KY	Ammonium nitrate	197000 lbs
03/16/92	Richmond, VA	Phosphoric acid	0*
03/17/92	Nashville, TN	Isopentane	2 lbs
03/19/92	Jacksonville, FL	Flammable liquid NOS	10 gals
03/20/92	Martin, SC	Sulfuric acid	5 gals
03/21/92	Cottage Grove, IN	Phosphoric acid	1 gal
03/22/92	Richmond, VA	Liquid petroleum gas	1 lb

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
03/23/92	Baltimore, MD	Cresol	0 gal*
03/26/92	Detroit, MI	Styrene monomer	1 gal
03/26/92	Mobile, AL	Pine oil	1 gal
03/27/92	Cincinnati, OH	Petroleum naphtha	1 gal
03/28/92	Flint, MI	Waste flammable liquid	2 gals
03/31/92	Fredricksburg, VA	Ethyl alcohol	2 gals
04/04/92	Hamlet, NC	Nitrobenzene	1 gal
04/04/92	Tampa, FL	Corrosive liquid NOS	1 gal
04/05/92	Evansville, IN	Hydrochloric acid	2 gals
04/07/92	Monroe, NC	Hydrogen peroxide	0 gal*
04/07/92	Richmond, VA	Sodium hydroxide	0 gal*
04/07/92	Portsmouth, VA	Combustible liquid NOS	3 gals
04/08/92	Richmond, VA	Argon	0 lbs*
04/09/92	New Orleans, LA	Acetone	5 gals
04/09/92	Jacksonville, FL	Pulp mill liquid	0 gal*
04/09/92	Winston, FL	Phosphoric acid	0 gal*
04/10/92	Winston, FL	Hydrochloric acid	1 gal
04/11/92	Rocky Mount, NC	Pulp mill liquid	0 gal*
04/11/92	Evnasville, IN	Carbon dioxide	0 lbs*
04/12/92	Winston, FL	Sulfuric acid	0 gal*
04/13/92	Jacksonville, FL	Paint	3 gals
04/13/92	Social Circle, GA	Vinyl acetate	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
04/15/92	Cincinnati, OH	Combustible liquid NOS	1 gal
04/17/92	Chicago, IL	Methyl amyl ketone	1 gal
04/17/92	Atlanta, GA	Sulphuric acid	1 gal
04/23/92	Greenwood, SC	Hexamethylene diamin	80 gals
04/24/92	Philadelphia, PA	Isopropanol	5 gals
04/24/92	Tampa, FL	Fuel oil	100 gals
04/26/92	New Orleans, LA	Glacial acetic acid	5 gals
04/26/92	Flint, MI	Toluene	3 gals
04/26/92	Evansville, IN	Phosphorus, white	1 lb
05/01/92	Cedartown, GA	Formaldehyde	250 gals
05/01/92	Baltimore, MD	Hydrochloric acid	100 gals
05/01/92	Winston, FL	Phosphoric acid	5 lbs
05/03/92	Waycross, GA	Ethyl alcohol	1 gal
05/03/92	Toledo, OH	Formaldehyde solution	1 lb
05/03/92	Jacksonville, FL	Fuel oil	25 gals
05/03/92	Jacksonville, FL	Fuel oil	5 gals
05/03/92	Rocky Mount, NC	Sulfuric acid	5 lbs
05/03/92	Rocky Mount, NC	Sulfuric acid	5 lbs
05/05/92	Willard, OH	Hydrochloric acid	1 gal
05/05/92	Cumberland, MD	Butadiene, inhibited	1 lb
05/05/92	New Orleans, LA	Styrene	1 gal
05/05/92	Bostic, NC	Sodium hydroxide solution	5 lbs

*** Quantity too small to measure**

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CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
05/05/92	Cincinnati, OH	Hydrochloric acid	0 gal*
05/05/92	Brunswick, GA	Sodium hydroxide	1 gal
05/08/92	Dearborne, MI	Sodium hydroxide	1 gal
05/09/92	Rocky Mount, NC	Pulp mill liquid	3 gals
05/10/92	Baldwin, FL	Liquid petroleum gas	5 lbs
05/12/92	Willard, OH	Phosphoric acid	1 gal
05/13/92	Mobile, AL	Sodium hydroxide	1 gal
05/14/92	Atlanta, GA	Oleum	1 lb
05/18/92	Birmingham,AL	Waste flammable liquid	50 gals
05/18/92	Eastover Jct., SC	Sulfuric acid	3 gals
05/18/92	Pensacola, FL	Sulfuric acid	2 gals
05/19/92	Charlotte, NC	Hydrochloric acid	2 lbs
05/19/92	Atlanta, GA	Dodecylbenzenesulfon	35 gals
5/20/92	Richmond, VA	Phosphoric acid	3 gals
05/23/92	Philadelphia, PA	Hydrochloric acid	3 gals
05/25/92	Augusta, GA	Oleum	3 lbs
05/25/92	Montgomery, AL	Vinyl acetate	5 gals
05/26/92	Tallahassee, FL	Sulfuric acid	3 gals
05/27/92	Knoxville, TN	Sodium aluminate, SO	2 gals
05/27/92	Flint, MI	Chlorobenzene	1 gal
05/27/92	Richmond, VA	Hydrofluorosilicic acid	1 gal
05/28/92	Flint, MI	Sulphuric acid	0 gal*

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
06/01/92	Rocky Mount, NC	Sulfuric acid	1 gal
06/01/92	Pensacola, FL	Diethylamine	1 gal
06/02/92	Whitakers, NC	Mocap	10 gals
06/02/92	Huntington, WV	Phenol	0 gal*
06/03/92	Flint, MI	Heptanes	1 gal
06/08/92	Glenwood, WV	Hydrogen chloride	1 gal
06/09/92	Walbridge, OH	Ferrous chloride solution	0 lbs*
06/10/92	Lima, OH	Anhydrous ammonia	0*
06/10/92	Abbeville, SC	Sulfuric acid	1 gal
06/12/92	Detroit, MI	Sodium hydroxide	1 gal
06/12/92	Cincinnati, OH	Sodium hydroxide	1 gal
06/15/92	Richmond, VA	Sodium hydroxide	1 gal
06/15/92	Curtis Bay, MD	Hydrochloric acid	1 gal
06/16/92	Walbridge, OH	Flammable liquid NOS	1 lb
06/16/92	Brookwood, AL	Fuel oil	800 gals
06/16/92	Blunt Island, FL	Fuel oil	10 gals
06/17/92	New Orleans, LA	Petroleum oil, NOS	2 gals
06/18/92	Flint, MI	Caustic soda, solution	1 lb
06/20/92	Charlotte, NC	Nitrating acid mixture	2 lbs
06/20/92	Charleston, SC	Toluidines	10 gals
06/21/92	Richmond, VA	Sodium hydroxide solution	5 lbs
06/22/92	Hamlet, NC	Phosphoric acid	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
06/22/92	Grand Rapids, MI	Carbon cioxide	1 gal
06/23/92	Chicago, IL	Phosporic acid	0 lbs*
06/24/92	Mobile, AL	Sodium hyroxide	2 gals
06/28/92	Fayetteville, NC	Carbon dioxide	0*
06/29/92	Rocky Mount, NC	Anhydrous ammonia	0 lbs*
06/30/92	New Orleans, LA	Sulfuric acid	1 gal
07/03/92	Maysville, KY	Corrosive NOS	5 gals
07/03/92	Maysville, KY	Corrosive material	1 lb
07/05/92	Colesburg, TN	Waste oil	1 gal
07/06/92	Willard, OH	Phosphoric acid	2 gals
07/10/92	Flint, MI	Phosphoric acid	0 gal*
07/11/92	Rocky Mount, NC	Phosphoric acid	3 gals
07/12/92	Rocky Mt., NC	Sulfuric acid	1 gal
07/13/92	Richmond, VA	Sulfuric acid	1 gal
07/16/92	Augusta, GA	Sulfuric acid	2 gals
07/16/92	Lima, OH	Isobutane	1 lb
07/17/92	Monroe, NC	Hydrogen peroxide solution	2 gals
07/17/92	Atlanta, GA	Sulphuric acid/oleum	2 gals
07/17/92	Atlanta, GA	Oleum	1 lb
07/17/92	Sarnia, ON	Petroleum naphtha	1 ltr
07/19/92	Walbridge, OH	Methyl alcohol	1 gal
07/20/92	Augusta, GA	Oleum	5 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
07/20/92	Hamlet, NC	Pulp mill liquid	0 gal*
07/20/92	Mobile, AL	Sodium chromate	0 gal*
07/21/92	Hamilton, OH	Hydrochloric acid	0 gal*
07/25/92	Cumberland, MD	Argon	0 lbs*
07/27/92	Raleigh, NC	Sulfuric acid	5 gals
07/28/92	Augusta, GA	Oleum	1 lb
07/28/92	Chattahoochee, FL	Sulfuric acid	5 gals
07/28/92	Vauces, OH	Sulfuric acid	3 gals
07/28/92	Atlanta, GA	Oleum	1 lb
07/30/92	Lafayette, IN	Oleum	1 lb
07/30/92	Mobile, AL	Methyl alcohol	2 gals
07/30/92	Pensacola, FL	Carbon dioxide, REFR	17000 gals
08/01/92	Covington, VA	Sulfuric acid	1 gal
08/02/92	New Orleans, LA	Methyl alcohol	2 gals
08/05/92	Richmond, VA	Hydroxide cresylic	0*
08/06/92	New Orleans, LA	Flammable liquid NOS	0*
08/06/92	New Orleans, LA	Methyl alcohol	1 pt
08/07/92	New Orleans, LA	Petroleum oil	1 gal
08/09/92	Richmond, VA	Hydrofluorosilicic acid	1 gal
08/10/92	Toledo, OH	Hydrochloric acid	1 gal
08/10/92	Fernald, OH	Sodium hydroxide	0*
08/11/92	Detroit, MI	Sulfuric acid	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
08/11/92	Andrews, SC	Sulfuric acid	15 gals
08/11/92	Jacksonville, FL	Paint	5 gals
08/11/92	Rocky Mount, NC	Rosin solution	2 gals
08/12/92	Rocky Mount, NC	Anhydrous Ammonia	1 gal
08/13/92	Florence, SC	Nitrating acid	1 gal
08/15/92	Waycross, GA	Sulfuric acid SP	50 gals
08/15/92	Waycross, GA	Sulfuric acid	0*
08/17/92	Atlanta, GA	Hexamethylenediamine	1 gal
08/17/92	Minford, OH	Petroleum naphtha	15 gals
08/19/92	Baltimore, MD	Argon	15 lbs
08/20/92	Cheraw, SC	Spent sulfuric acid	0 unkn
08/21/92	Flint, MI	Isobutane	0 lbs*
08/22/92	New Orleans, LA	Corrosive liquid NOS	1 gal
08/23/92	Grafton, WV	Nitrobenzene	1 lb
08/23/92	Hamlet, NC	Sulfuric acid	2 gals
08/24/92	Toledo, OH	Hydrochloric acid	1 lb
08/25/92	Sumter, SC	Sodium hydroxide	2 gals
08/25/92	Martinsville, WV	Sodium hydroxide	1 gal
08/25/92	Martinsville, WV	Sodium hydroxide	0 gals
08/26/92	Baldwin, FL	Phosphoric acid solution	10 gals
08/26/92	Philadelphia, PA	Sulfuric acid	8 gals
08/28/92	Atlanta, GA	Methyl alcohol	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
8/29/92	Winston, FL	Phosphoric acid	0 gal*
08/30/92	Hialeah, FL	Hydochloric acid	0 gals
08/31/92	Mobile, AL	Flammable liquid NOS	1 gal
08/31/92	Philadelphia, PA	Sulfuric acid	0 gal*
09/02/92	Baldwin, FL	Hydrochloric acid	1 gal
09/05/92	Charleston, SC	Phosphorus trichl..de	1 gal
09/09/92	Prosperity, SC	Waste combustible liquid	4000 gals
09/09/92	Port Huron, MI	Carbon dioxide	10000 lbs
09/11/92	Charleston, SC	Sodium hydroxide	0*
09/11/92	Hamlet, NC	Hydrogen peroxide	0*
09/12/92	Charlotte, NC	Methyl alcohol	0*
09/14/92	New River, OH	Molten sulphur	0*
09/17/92	Etowah, TN	Sulfuric acid	1 lb
09/20/92	Willard, OH	Electrode pitch, tar	1 oz
09/21/92	Enfield, NC	Paint	7 gals
09/22/92	Augusta, GA	Fuming sulfuric acid	2 lbs
09/22/92	Cincinnati, OH	Nitric acid	1 lb
09/23/92	Cleveland, OH	Trichloroethane	0 gal*
09/23/92	Cincinnati, OH	Hazardous substance NOS	1 lb
09/27/92	Atlanta, GA	Fuming sulfuric acid	2 lbs
09/29/92	Augusta, GA	Sulfuric acid	1 gal
10/01/92	Rocky Mount, NC	Anhydrous ammonia	4 lbs

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
10/01/92	Rocky Mount, NC	Anhydrous ammonia	1 gal
10/02/92	Erwin, TN	Flammable liquid NOS	10 gals
10/02/92	Saginaw, MI	Acetic acid	1 gal
10/05/92	Atlanta, GA	Oleum	1 lb
10/05/92	Cleveland, OH	Combustible liquid NOS	1 gal
10/05/92	Pyne, GA	Nitrating acid	300 lbs
10/07/92	Omar, WV	Ammonium nitrate	5000 lbs
10/07/92	Mobile, AL	Sodium hydroxide	1 gal
10/07/92	Columbus, OH	Phosphoric acid	1 gal
10/07/92	Pensacola, FL	Sulfuric acid	2 gals
10/10/92	New Orleans, LA	Butyl acrylate	0 gal*
10/12/92	New Orleans, LA	Sodium hydroxide	1 gal
10/14/92	Flint, MI	Liquefied petro gas	0 lbs*
10/15/92	Woodbridge, VA	Rug shampoo	5 gals
10/18/92	Waycross, GA	Hydrochloric acid	1 gal
10/18/92	Rocky Mount, NC	Phosphoric acid	1 gal
10/18/92	Frantz, KY	Ammonium nitrate	5 tons
10/22/92	Waycross, GA	Hydrochloric acid	1 gal
10/22/92	Cincinnati, OH	Phosphoric acid	0*
10/22/92	Cincinnati, OH	Sulphuric acid	0*
10/22/92	Cincinnati, OH	Propane	0*
10/24/92	Willard, OH	Sulfuric acid	10 lbs

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
10/24/92	Curtis Bay, MD	Fuel oil	1 lb
10/25/92	Augusta, GA	Oleum	1 lb
10/26/92	Atlanta, GA	Sulfuric acid	0*
10/27/92	Nashville, TN	Nitrating acid	2 gals
10/28/92	Portsmouth, VA	Oil	2 gals
11/02/92	Sumter, SC	Sodium hydroxide	5 gals
11/05/92	Rocky Mount, NC	Sulfuric acid	1 gal
11/09/92	Columbus, OH	Sodium hydroxide	1 lb
11/09/92	Columbus, OH	Combustible liquid NOS	1 lb
11/10/92	Dayton, OH	Styrene monomer	1 lb
11/12/92	Lima, OH	Isobutane	1 lb
11/16/92	Larley, MD	Phosphoric acid	5 lbs
11/19/92	Pensacola, FL	Sulfuric acid	1 gal
11/19/92	Tallahassee, FL	Sulfuric acid	1 gal
11/19/92	New Orleans, LA	Sodium aluminate solution	1 lbs
11/24/92	Fargo, ON	Liquified petroleum gas	1 lb
11/24/92	Chatham, ON	Liquified petroleum gas	1 lb
11/24/92	Chatham, ON	Carbon dioxide	1 lb
11/24/92	Chatham, ON	Dimethylformamide	0 gal*
11/24/92	Chatham, ON	Acrylonitrile	0 gal*
11/24/92	Flint, MI	Amm. Thiosulphate	1 gal
11/25/92	Pensacola, FL	Liquid petroleum gas	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
12/01/92	Walbridge, OH	Alcoholic beverages	2 gals
12/02/92	Dearborn, MI	Sulphur, molten	1 gal
12/02/92	Flint, MI	Propane	1 gal
12/03/92	Flint, MI	Propane	1 gal
12/06/92	Kingsland, GA	Chlorine	1 lb
12/10/92	Flint, MI	Chlorbenzene	0*
12/10/92	Charleston, SC	Xylene	14 gals
12/11/92	Greenwood, SC	Alcohols, NOS	0*
12/11/92	Roanoke, AL	Sulfur, molten	5 lbs
12/15/92	Flint, MI	Butane	2 lbs
12/16/92	Baldwin, FL	Phosphoric acid	2 gal
12/21/92	Atlnata, GA	Hydrochloric acid	200 gals
12/25/92	Louisville, KY	Coal tar distillate	800 gals
12/27/92	Detroit, MI	Methyl methacrylate	5 gals
12/30/92	Atlanta, GA	Combustible liquid NOS	1 lb
12/31/92	Columbus, OH	Liquid petroleum gas	1 lb
01/02/93	Rocky Mount, NC	Phosphoric acid	2000 gals
01/05/93	Hamlet, NC	Nitrating acid	2 gals
01/06/93	Brunswick, GA	Hydrochloric acid	1 lb
01/08/93	Riverdale, IL	Ethyl alcohol	2 lbs
01/11/93	New Orleans, LA	Phosphoric acid	0 gal*
01/12/93	Corbin, KY	Gasoline	1 lb

*** Quantity too small to measure**

Date	Location	Commodity	Quantity
01/14/93	Sarnia, ON	Propane	0 lbs*
01/15/93	Washington Ch., OH	Sodium hydrosulfide	5 gals
01/17/93	Mobile, AL	Petroleum naphtha	1 gal
01/17/93	Atlanta, GA	Oleum (sulfuric acid)	1 gal
01/19/93	Louisville, KY	Sodium chlorate	2 lbs
01/21/93	Richmond, VA	Anhydrous ammonia	2 lbs
01/23/93	Willard, OH	Nitrogen, refrig. liquid	3 lbs
01/25/93	Walbridge, OH	Nitrogen, refrig. Liquid	3 lbs
01/26/93	Middletown, OH	Hydrochloric acid	0*
01/26/93	Birmingham, AL	Pulp mill liquid	2 lbs
01/29/93	Savannah, GA	Carbon dioxide	5 lbs
02/01/93	Montgomery, AL	Sodium hydroxide	1 gal
02/05/93	Willard, OH	Sulfuric acid	5 gals
02/07/93	Rock Haven, KY	Ethylene (refrigerate)	1 gal
02/07/93	Chicago, IL	Toluene/xylene	2 qts
02/08/93	Flint, MI	Liquid petroleum gas	2 lbs
02/08/93	Hawesville, KY	Sodium hydroxide	2 gals
02/12/93	Jacksonville, FL	Flammable liquid NOS	10 gals
02/12/93	Orlando, FL	Compound cleaning liquid	40 gals
02/13/93	New Orleans, LA	Methyl alcohol	5 gals
02/13/93	New Orleans, LA	Sodium hydroxide solution	1 lb
02/17/93	Chattanooga, TN	Ferric chloride	5 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
02/19/93	Orlando, FL	Compound, cleaning	5 gals
02/23/93	New Orleans, LA	Xylene	1 gal
02/23/93	Brewton, AL	Potassium hydroxide	1 gal
02/25/93	Newport News, VA	Denatured alcohol	1 gal
02/28/93	Mobile, AL	Pulp mill liquid	1 gal
03/01/93	Columbus, OH	Phosphoric acid	1 lb
03/02/93	Flint, MI	Liquified petroleum gas	0 lbs*
03/02/93	Parkersburg, WV	Methyl methacrylate	1 gal
03/03/93	Flint, MI	Propane	0 lbs*
03/04/93	New Orleans, LA	Sulfuric acid	1 gal
03/09/93	Lynchburg, VA	Sodium hydroxide	1 gal
03/10/93	Monroe, NC	Nitrating acid	1 gal
03/16/93	Fayetteville, NC	Anhydrous ammonia	2 lbs
03/17/93	Port Huron, MI	Anhydrous ammonia	2 lbs
03/19/93	Raleigh, NC	Ferrous sulfate	11900 lbs
03/21/93	Evansville, IN	Phosphoric acid	0 lbs*
03/21/93	New Orleans, LA	Chlorine	0*
03/23/93	Tampa, FL	Sulfuric acid	10 gals
03/23/93	Dayton, OH	Ammonia, anhydrous	1 gal
03/27/93	Ivorydale, OH	Hydrochloric acid	1 gal
04/01/93	Atlanta, GA	Toluene	1 gal
04/06/93	Erwin, TN	Petroleum naphtha	2 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
04/07/93	Nashville, TN	Phosphor trichloride	2 lbs
04/09/93	Tallahassee, FL	Pin oil	15 gals
04/12/93	Tampa, FL	Paint	3 gals
04/12/93	Nashville, TN	Petroleum naphtha	2 gals
04/12/93	Cincinnati, OH	Phosphoric acid	0*
04/12/93	Sumter, SC	Waste combustible liquid	5 gals
04/13/93	Chatham, ON	Petroleum naphtha	0 gal*
04/13/93	Chatham, ON	Trimethylamine, anhydrous	0 lbs*
04/14/93	Flint, MI	Ammonium nitrate	175 lbs
04/15/93	Kennesaw, GA	Fuel oil	1000 gals
04/16/93	Lakeland, FL	Sulfuric acid	1 lb
04/16/93	Nashville, TN	Sodium aluminate solution	1 gal
04/16/93	Port Huron, MI	Styrene monomer	2 gals
04/16/93	Flint, MI	Naptha class 3.3	5 gals
04/16/93	Jacksonville, FL	Acrylic acid	1 gal
04/17/93	Evansville, IN	Acetone	5 lbs
04/17/93	Jacksonville, FL	Petroleum naptha	1 gal
04/18/93	New River, OH	Hydrochloric acid	5 lbs
04/18/93	Wadley, AL	Fuel oil	5 gals
04/19/93	Philadelphia, PA	Dentaured alcohol	2 gals
04/19/93	New Orleans, LA	Petro distillate	0*
04/20/93	Fllint, MI	Liquified petroleum gas	1 lb

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
04/21/93	Mobile, AL	Combustible liquid NOS	0*
04/21/93	Mobile, AL	Sodium hydroxide	0*
04/22/93	New Orleans, LA	Ammonia anhydrous	0*
04/28/93	Luke MD	Sodium hydroxide	1 gal
04/28/93	Luke MD	Sulfuric acid	1 pt
04/28/93	Lima, OH	Liquid petroleum gas	1 gal
04/28/93	Port Huron, MI	Xylene	1 gal
04/28/93	Columbus, OH	Phosphoric acid	1 gal
05/01/93	Atlanta, GA	Compound, cleaning liquid	10 gals
05/03/93	Walbridge, OH	Acetone	1 gal
05/04/93	Cincinnati, OH	Cresol	5 gals
05/05/93	Charlotte, NC	Hydrochloric acid	1 gal
05/05/93	Charlotte, NC	Nitrating acid	1 gal
05/06/93	Charlotte, NC	Nitrating acid	0
05/10/93	Locus Point, MD	Fluorosilicic acid	178 gals
05/11/93	Mobile, AL	Combustible liquid NOS	1 gal
05/13/93	Waycross, GA	Fluorosilicic acid	500 gals
05/13/93	Riverdale, IL	Phosphoric acid	1 gal
05/13/93	Lakeland, FL	Sulfuric acid	2 gals
05/17/93	Flint, MI	Liquified petroleum, gas	0 lbs
05/17/93	Brunswick, GA	Sodium hydroxide	1 gal
05/22/93	Wixon, MI	Caustic soda	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
05/22/93	Lakeland, FL	Phosphoric acid	1 gal
05/22/93	New Orleans, LA	Hydrochloric acid	2 lbs
05/22/93	New Orleans, LA	Flammable liquid NOS	0 gals
05/25/93	Lakeland, FL	Phosphoric acid	1 gal
05/25/93	Mina, GA	Sulfuric acid	1 pint
05/28/93	Richmond, VA	Sulfuric acid	2 gals
06/01/93	Charlotte, NC	Potassium hydroxide	1 gal
06/03/93	Philadelphia, PA	Cleaning compounds	0
06/03/93	Rocky Mount, NC	Phosphoric acid	1 gal
06/05/93	Mobile, AL	Phenol	1 gal
06/09/93	Atlanta, GA	Methanol	1 lb
06/09/93	New Orleans, LA	Combustible liquid NOS	5 gals
06/11/93	Delta, SC	Ethylene glycol	36000 gals
06/11/93	Delta, SC	PVC resin powder	50 tons
06/11/93	Delta, SC	Ammonium polyphosphate	850 gals
06/11/93	Delta, SC	PVC plastics	50 tons
06/11/93	Delta, SC	Methyl alcohol	12000 gals
06/11/93	Delta, SC	Hydrochloric acid	13000 gals
06/13/93	Chicago, IL	Combustible liquid	0 gals
06/13/93	Atlanta, GA	Sulfuric acid	0 gals
06/14/93	Walbridge, OH	Hydrochloric acid	1000 gals
06/15/93	Mobile, AL	Hydrochloric acid	0.00

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
06/15/93	New Orleans, LA	Hydrochoric acid	5 lbs
06/18/93	Montgomery, AL	Oil combustible liquid	0
06/18/93	Savannah, GA	Sodium hydrosulfide	0
06/23/93	Harpster, OH	Propane	1 gal
06/24/93	Pompano Beach, FL	Liquid petroleum gas	25 lbs
06/24/93	Bedford Park, IL	Liquid petroleum gas	25 lbs
06/24/93	Bedford, Park, IL	Flamable liquid NOS	5 gals
06/28/93	Poplar, NC	Carbon dioxide	0
07/02/93	Danville, IL	Denatured alcohol	10 gals
07/05/93	Rocky Mount, NC	Anhydrous ammonia	1 lb
07/06/93	Locus Point, MD	Fluorosilicic acid	1 gal
07/06/93	Florence, SC	Turpentine	1 gal
07/10/93	Baltimore, MD	Fuel oil	1 gal
07/15/93	Detroit, MI	Hydrogen peroxide	5 gals
07/17/93	Nashville, TN	Caustic soda, liquid	20 lbs
07/23/93	Rocky Mount, NC	Flammable liquid NOS	1 gal
07/23/93	Atlanta, GA	Sulfur Dioxide	0 lbs
07/23/93	Columbus, OH	Nitrogen, refrig. liquid	0 lbs
07/24/93	Rocky Mount, NC	Anhydrous ammonia	0 lbs
07/25/93	Danville, IL	Ethyl ether	2 gals
07/26/93	Richmond, VA	Sodium hydroxide	1 gal
07/26/93	Covinton, GA	Isopentane	0

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
07/27/93	Charlotte, NC	Nitrating acid	1 gal
07/29/93	Bedford Park, IL	Paint flammable liquid	0
08/01/93	Riverdale, IL	Phosphoric acid	1 gal
08/02/93	Mobile, AL	Nitrobenezene	1 gal
08/03/93	Tampa, FL	Sodium hydroxide solution	1 gal
08/04/93	Hamlet, NC	Hydrochloric acid	10 gals
08/06/93	Rocky Mount, NC	Ammonia, anhydrous	1 lb
08/06/93	Nashville, TN	Difluorethylene	2 lbs
08/06/93	New Orleans, LA	Sodium hydroxide	1 pt
08/06/93	Philadelphia, PA	Methylamine	10 gals
08/08/93	Willard, OH	Hydrochloric acid	550 gals
08/12/93	Chicago, Il	Hydrogen peroxide	1 gal
08/12/93	Mobile, AL	Hydrogen peroxide	2 gals
08/13/93	Plymouth, MI	Carbon dioxide	0 lbs
08/17/93	Richmond, VA	Sulfuric acid	1 gal
08/18/93	Ft. Lauderdale, FL	Chlorine	2 lbs
08/19/93	Atlanta, GA	Oleum	5 gals
08/19/93	Atlanta, GA	Oleum	3 gals
08/20/93	Mobile, AL	Combustible liquid NOS	1 gal
08/25/93	Riverdale, IL	Xylenes	2 gals
08/26/93	Curtis Bay, MD	Sulfuric acid	1 gal
08/26/93	Mobile, AL	Hydrochloric acid	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
08/26/93	Erwin, TN	Waste flammable liquid NOS	2 gals
08/26/93	Tunnel Hill, KY	Vinylidene chloride	23000 gals
08/26/93	Tunnel Hill, KY	Vinylidene chloride	0*
08/26/93	Tunnel Hill, KY	Hydrogen fluoride	0*
08/27/93	Atlanta, GA	Oleum	1 lb
08/27/93	Willard, OH	Ethyl acrylate	0 gals
08/29/93	Cincinnati, OH	Combustible liquid	1 pint
08/30/93	Winder, GA	Fuel oil	500 gals
08/30/93	Winder, GA	Fuel oil	700 gals
08/30/93	Winder, GA	Xylenes	0*
08/30/93	Winder, GA	Adipic acid	20 tons
08/31/93	Atlanta, GA	Sulfuric acid	2 gals
09/03/93	Nashville, TN	Sulfuric acid	2 gals
09/04/93	Bedford Park, IL	Capsicum oleo resin	5 gals
09/08/93	Chatham, ON	Anhydrous ammonia	1 lb
09/13/93	New Orleans, LA	Flammable liquid NOS	1 gal
09/14/93	Atlanta, GA	Ethyl acrylate, inh.	1 oz
09/15/93	Richmond, VA	Ethanol	100 gals
09/15/93	Toledo, OH	Acetaldehyde	1 pint
09/19/93	Riverdale, IL	Hydrogen peroxide	2 gals
09/21/93	Jacksonville, FL	Hydrogen peroxide	1 gal
09/22/93	Birmingham, AL	Oil	2 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
09/23/93	Atlanta, GA	Oleum	1 gal
09/26/93	Richmond, VA	Waste, alkaline liquid	100 gals
09/27/93	Chicago, IL	Trichloroisocyanuric	100 lbs
09/28/93	Cumberland, MD	Nitrating acid mix	1 qt
10/04/93	Winston, FL	Fluorosilicic acid	10 gals
10/06/93	Chicago, IL	Diethyl ether	1 lb
10/08/93	Rocky Mount, NC	Anhydrous ammonia	0
10/13/93	Saginaw, MI	Waste flammable liquid	2 gals
10/18/93	Mobile, AL	Hydrochloric acid	1 gal
10/19/93	Columbus, OH	Argon	1 gal
10/20/93	Richmond, VA	Phosphoric acid	5 gals
10/22/93	Atlanta, GA	Fuming sulfuric acid	1 gal
10/23/93	Augusta, GA	Oleum	1 gal
10/24/93	New Orleans, LA	Liquified petroleum gas	1 gal
10/28/93	Atlanta, GA	Hydrogen peroxide	1 pint
10/31/93	New Orleans, LA	Flammable liquids, NOS	1 gal
11/03/93	Garrett, IN	Argon	0
11/04/93	Jacksonville, FL	Flammable liquid NOS	60 gals
11/05/93	New Orleans, LA	Hydrochloric acid	1 gal
11/12/93	Nashville, TN	Liquid petroleum gas	3 lbs
11/12/93	Cleveland, OH	Potassium hydroxide	1 gal
11/15/93	Jacksonville, FL	Hydrochloric acid	2 lbs

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
11/18/93	Riverdale, IL	Phosphoric acid	25 gals
11/20/93	Richmond, VA	Anhydrous ammonia	0
11/20/93	Baltimore, MD	Sodium hydroxide	0
11/23/93	Wilmington, DE	Glacial acetic acid	2 lbs
11/23/93	Cincinnati, OH	Coal tar distillates	0
11/24/93	Philadelphia, PA	Isopropanol	30 gals
11/30/93	Hamlet, NC	Acetic acid	1 gal
12/01/93	Jacksonville, FL	Flammable liquid NOS	1 gal
12/01/93	Jacksonville, FL	Butyl ether	0
12/03/93	Nashville, TN	Hydrochloric acid	3 gals
12/05/93	New Orleans, LA	Acrylic acid	5 gals
12/07/93	Grand Rapids, MI	Methanol	50 gals
12/07/93	Sumter, SC	Sodium hydroxide	0
12/08/93	Atherton, IN	Pulp mill liquid	5 gals
12/16/93	Russell, KY	Phosphoric acid	1 qt
12/29/93	Atlanta, GA	Carbon dixoide	1 gal
12/30/93	Florence, SC	Sulfate turpentine	1 gal
01/06/94	Atlanta, GA	Hydrochloric Acid	1 gal
01/07/94	Mongomery, AL	Xylenes	1 gal
01/09/94	New Orleans, LA	Ethoxylated Alchol	1 lb
01/10/94	Port Huron, MI	Styrene monomer	1 gal
01/11/94	Nashville, TN	Liquified petroleum gas	2 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
01/11/94	Cambridge, OH	Fuel oil	0
01/11/94	Cambridge, OH	Ammonium nitrate	90 tons
01/12/94	Portsmouth, VA	Ethyl 3 ethoxy PROPI	1 qt
01/16/94	Waycross, GA	Sulphuric acid	100 gals
01/20/94	Rocky Mount, NC	Anhydrous ammonia	25 lbs
02/01/94	Bedford Park, IL	Paint	55 gals
02/09/94	East St Louis, IL	Argon refrig. liquid	5 lbs
02/16/94	New Orleans, LA	Pulpmill liquid	1 gal
02/16/94	Lakeland, FL	Styrene monomer	1 gal
02/16/94	Chillicothe, OH	Sodium hydroxide	10 gals
02/20/94	New Orleans, LA	Hydrocholic acid	1 qt
02/21/94	Chicago, IL	Hydrocholic acid	3 gals
02/22/94	Nashville, TN	Sodium flourosilicat	4 cups
02/22/94	Cottage Grove, IN	Phosphuric acid	0
02/23/94	Wilmington, NC	Methanol	20 gals
02/24/94	Wilmington, NC	Env. Haz. Sub NOS	10 gals
02/28/94	Cincinnati, OH	Flammable liquid NOS	0
03/01/94	Midland, MI	Methyl acrylate	1 gal
03/03/94	St Marys, GA	Sulfuric acid	0
03/06/94	Columbus, OH	Sulfuric acid	0
03/09/94	Kingsport, TN	Liquified petroleum gas	2 lbs
03/17/94	Cincinnati, OH	Combustible liquid NOS	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
03/19/94	New Orleans, LA	Argon, refrigerated	50 gals
03/19/94	Covington, VA	Sodium hydroxide	1 gal
03/20/94	Columbus, OH	Sodium hydroxide, solution	1 gal
03/20/94	Erwin, TN	Methanol	5 gals
03/20/94	Hamlet, NC	Acetic acid, glacial	320 gals
03/21/94	Jacksonville, FL	Resin solution	10 gals
03/21/94	Oaktown, IN	Anhydrous ammonia	1 lb
03/22/94	Cincinnati, OH	Phosphoric acid	1 gal
03/23/94	Thomasville, GA	Petrolium oil	1 gal
03/23/94	Kentwood, MI	Benzyl, chloride	50 gals
03/23/94	Columbus, OH	Phosphoric acid	2 gals
03/24/94	Dayton, OH	Butylacrylate	1 gal
03/24/94	Bedford Park, MI	Battery fluid	1 gal
03/26/94	Lakeland, FL	Fluorosilicic acid	2 gals
03/28/94	Social Circle, GA	Sulfuric acid	1 gal
03/28/94	Jacksonville, FL	Petroleum distillate	2 gals
03/29/94	Dothan, AL	Turpentine	1 gal
03/30/94	Hamlet, NC	Sulfuric acid	1 gal
04/01/94	Augusta, GA	Cyclohexane	20 gals
04/04/94	Jacksonville, FL	Flammable liquid NOS	1 gal
04/10/94	Walbridge, OH	Fluorosilicic acid	1 gal
04/11/94	Augusta, GA	Sulfuric acid	500 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
04/14/94	Thomasville, GA	Anhydrous ammonia	0.00
04/14/94	Ocala, FL	Phosphoric acid	50 gals
04/18/94	Atlanta, GA	Butadienes, inhibite	1 lb
04/19/94	Charleston, SC	Carbon disulphide	0
04/20/94	Cumberland, MD	Sulfuric acid, spent	1 gal
04/20/94	Charleston, SC	Methanol, spent	1 gal
04/21/94	Fernandina BH, FL	Acrylic acid	2 gals
04/24/94	Rocky Mt., NC	Hydrogen peroxide	1 gal
04/24/94	Covington, VA	Sodium hydroxide	1 gal
04/26/94	Cincinnati, OH	Potassium hydroxide	2 gals
04/27/94	Richmond, VA	Naptha	1 gal
05/03/94	New Orleans, LA	Hydrochloric acid	1 gal
05/03/94	New Orleans, LA	Anhydrous ammonia	1 gal
05/04/94	Pensacola, FL	Anhydrous ammonia	1 gal
05/05/94	Detroit, MI	Fuel oil	1500 gals
05/06/94	Lakeland, FL	Sulfuric acid	1 gal
05/06/94	Waycross, GA	Petroleum naphtha	10 gals
05/07/94	Jacksonville, FL	Dipentene	10 gals
05/08/94	Augusta, GA	Sulfuric acid	1 gal
05/08/94	Cincinnati, OH	Liquid oxygen	1 gal
05/09/94	Augusta, GA	Sulfuric acid	1 gal
05/16/94	Cincinnati, OH	Ethyl acrylate	0

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
05/18/94	Columbus, OH	Naphtha	1 gal
05/18/94	Hamlet, NC	Spent sulfuric acid	5 gals
05/21/94	Bells, TN	Phenol	0
05/21/94	Hamlet, NC	Phosphoric acid	0
05/24/94	Mobile, AL	Cylohexanone	1 gal
05/24/94	Greenville, NC	Fluorosilic acid	1 gal
05/27/94	Florence, SC	Methanol	1 gal
05/29/94	Dothan, AL	Flammable liquid NOS	40 gals
05/31/94	Jacksonville, FL	Carbon dioxide	18000 gals
06/04/94	Bedford Park, IL	Paint	30 gals
06/14/94	Dayton, OH	Flammable liquid NOS	10 gals
06/16/94	Savannah, GA	Acrylamide	1 gal
06/16/94	Mobile, AL	Sulfuric acid	2 gals
06/18/94	Flint, MI	Liquid petroleum gas	100 lbs
06/19/94	Lilly, GA	Ink	2 gals
06/20/94	Jacksonville, FL	Paint	1 gal
06/20/94	Graysville, GA	Fuel oil	200 gals
06/21/94	Cincinnati, OH	Anhydrous ammonia	0
06/27/94	Richmond, VA	Carbon dioxide, liquid	3000 lbs
07/03/94	Baldwin, FL	Hydrochloric acid, solution	10 gals
07/03/94	Jacksonville, FL	Trimethylchlorosilan	1 gal
07/05/94	Finnville, MI	Epichlorohydrin	46 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
07/05/94	Louisville, KY	Petroleum naphtha	28000 gals
07/05/94	Willard, OH	Fluorosilicic acid	1 gal
07/06/94	Birmingham, AL	Hydrochloric acid	1 gal
07/06/94	S. Charleston, WV	Dimethylamine anhydrous	10 lbs
07/08/94	Newport News, VA	Ethanol	10 gals
07/12/94	Philadelphia, PA	Corrosive liquid NOS	50 gals
07/13/94	Walbridge, OH	Nitrating acid mix	1 gal
07/19/94	La Grange, KY	Naptha	10 gals
07/20/94	Curtis Bay, MD	Butyl acrylate	5 gals
07/21/94	Lakeland, FL	Fluorosilicic acid	10 gals
07/21/94	Raleigh, NC	Ferrous sulphate, solution	20 tons
07/26/94	East Chicago, IN	Hydrogen peroxide	1 gal
08/01/94	Willard, OH	Hydrochloric acid	2 gals
08/06/94	Memphis, TN	Nonyl alcohol	1 qt
08/07/94	Philadelphia, PA	Naphtha	1 qt
08/09/94	Jacksonville, FL	Thia-4-pentanal	0
08/11/94	Pensacola, FL	Sodium hydroxide	1 gal
08/11/94	Charleston, WV	Tara nitrochorobenze	0
08/12/94	Nashville, TN	Acetone	300 gals
08/12/94	Jacksonville, FL	2,4-Dichlorophenxyac	2 gals
08/15/94	Hamlet, NC	Sulfuric acid, spent	5 gals
08/23/94	Nashville, TN	Corrosive liquids, N	0

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
08/29/94	Madison, GA	Sulfuric acid	5 gals
08/29/94	New Orleans, LA	Glyokolic acid	1 gal
08/30/94	Cincinnati, OH	Methyl caprylate	1 gal
08/30/94	Baltimore, MD	Sodium hydroxide, solution	2 gals
08/31/94	Port Huron, MI	Propane	2 lbs
09/02/94	Cincinnati, OH	PCB cont. soil	0 lbs
09/04/94	Charlotte, NC	Methanol	2 gals
09/06/94	Savannah, GA	Dipentene	1 gal
09/16/94	Bedford Park, IL	Coating solution	45 gals
09/17/94	Covington, VA	Sulfuric acid	2 gals
09/23/94	Kingsport, TN	Methanol	2 gals
09/24/94	Flint, MI	Butyl acrylate	5 gals
09/29/94	Lima, OH	Liquid petroleum gas	2 gals
09/29/94	Philadelphia, PA	Resin solution	0
09/29/94	Evansville, IN	Naphtha, solution	1 qt
09/30/94	Atlanta, GA	Sulfuric acid	1 qt
10/01/94	Philadelphia, PA	Hydrogen peroxide	0
10/04/94	Jacksonville, FL	Petroleum distillate	1 lb
10/12/94	Richmond, VA	Phosphoric acid	3 gals
10/17/94	Jacksonville, FL	Chlorobenzene	1 gal
10/18/94	Riverdale, IL	Styrene	1 gal
10/20/94	Charlotte, NC	Paint	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
10/22/94	Grand Rapids, MI	T nonyl mercaptan	2 gals
10/24/94	Cincinnati, OH	Extract flavoring	7 gals
10/24/94	Rocky Mt., NC	Fluorosilicic acid	1 qt
10/25/94	Nashville, TN	Furfural	1 gal
10/28/94	New Orleans, LA	Arsenical pesticide	2 gals
10/31/94	Riverdale, IL	Hydrochloric acid	5 lbs
11/02/94	Gossom, KY	Ethanolamine	143 gals
11/02/94	Riverdale, IL	Ethanol	1 lb
11/05/94	Pensacola, FL	Terpene hydrocarbons	2 gals
11/07/94	Portsmouth, VA	Flammable liquid NOS	5 gals
11/15/94	Tampa, FL	Methanol	10 gals
11/16/94	East Chicago, IN	Hydrochloric acid	5 lbs
11/16/94	Birmingham, AL	Waste flammable liquid	1 lb
11/16/94	Nashville, TN	Hydrochloric acid	5 lbs
11/17/94	Philadelphia, PA	Hydrochloric acid	2 lbs
11/17/94	New Orleans, LA	Methanol	1 qt
11/23/94	Hamlet, NC	Methanol	2 gals
11/30/94	Charleston, SC	Flammable liquid NOS	1 gal
12/01/94	New Orleans, LA	Turpentine	5 gals
12/05/94	Hamlet, NC	Pulp mill liquid	1 gal
12/07/94	Cincinnati, OH	Liquified petroleum gas	0
12/15/94	Pittsburgh, PA	Hydrogen peroxide	25 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
12/31/94	Pt. Pleasant, WV	Hydrochloric acid	1 lg
01/08/95	Dothan, AL	Sulfuric acid	3 gals
01/10/95	Raleigh, NC	Acetic anhydride	1 gal
01/10/95	Augusta, GA	Sulfuric acid	2 gals
01/12/95	Amoco, VA	Ethanol	3 gals
01/19/95	Lima, OH	Ferric chloride	1 pt
01/19/95	Mobile, AL	Pulp mill liquid	1 gal
01/21/95	Chicago, IL	Sulfuric acid	1 gal
01/24/95	Augusta, GA	Sulfuric acid	3 gals
01/25/95	Atlanta, GA	Paint	50 gals
01/29/95	Mobile, AL	Methanol	1 gal
01/30/95	Robards, KY	Ammonium nitrate	50 lbs
02/01/95	Harletville, SC	Waste flammable liquid	5 gals
02/01/95	Harletville, SC	Flammable liquids	5 gals
02/01/95	Cincinnati, OH	Butyraldehyde	2 gals
02/02/95	Kingsland, GA	Sulfuric acid	10 gals
02/05/95	Grand Rapids, MI	Combustible liquid NOS	5 gals
02/09/95	Chillicothe, OH	Sulfuric acid	10 gals
02/10/95	New Orleans, LA	Toluene	3 gals
02/10/95	Cincinnati, OH	Sulfuric acid	1 lb
02/12/95	Riverdale, IL	Methanol	1800 gals
02/13/95	Hawesville, KY	Sodium hydroxide	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
02/14/95	Montgomery, AL	Cyclohexanone	2 qts
02/18/95	Flint, MI	Styrene monomer	1 pt
02/20/95	Chicago, IL	Pulp mill liquid	10 gals
02/21/95	Detroit, MI	Paint	10 gals
02/21/95	Pensacola, FL	Glacial acetic acid	5 gals
02/22/95	Kobuta, PA	Butylacrylate	2 qts
02/22/95	Hamlet, NC	Formaldehyde solution	1 gal
02/22/95	Hamlet, NC	Env. haz. sub. liquid	1 gal
02/24/95	Charleston, SC	Waste corrosive liquid	3 gals
03/02/95	Chicago, IL	Styrene monomer	1 gal
03/06/95	Madisonville, KY	Hydrochloric acid	3 gals
03/07/95	Montgomery, AL	Sodium hydroxide	1 gal
03/13/95	Cincinnati, OH	Alcohols, NOS	1 lb
03/15/95	New Orleans, LA	Env. haz. sub. NOS	1 gal
03/16/95	Jacksonville, FL	Flammable liquid NOS	2 gals
03/27/95	Flint, MI	Methanol	1 gal
03/27/95	Demmler, PA	Fluorosilicic acid	1 gal
03/28/95	Walbridge, OH	Hydrochloric acid	1 qt
03/29/95	Augusta, GA	Flammable liquid NOS	1 gal
04/04/95	Jacksonville, FL	Flammable liquid poison NOS	1 gal
04/07/95	Augusta, GA	Sulfuric acid	10 gals
04/07/95	Atlanta, GA	Sulfuric acid	10 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
04/09/95	Lakeland, FL	Sulfuric acid	5 gals
04/10/95	Covington, VA	Sodium hydroxide	10 gals
04/12/95	Russell, KY	Hydrochloric acid	2 gals
04/15/95	Louisville, KY	Phosphorus sludge	0 lbs
04/17/95	Rocky Mount, NC	Sulfuric acid	1 qt
04/17/95	Lockland, OH	Sulfuric acid	4000 gals
04/18/95	Jacksonville, FL	Phenetidine	5 gals
04/21/95	Riverdale, IL	Hydrofluorosilicic	2 gals
04/21/95	Nashville, TN	Sulfuric acid	800 gals
04/22/95	Danville, IL	Ethyl alcohol, anhydrous	5 gals
04/22/95	Lakeland, FL	Petroleum oil	5 gals
04/26/95	Russell, KY	Aviation fuel	2 qts
05/03/95	Copperhill, TN	Ferric sulfate solution	1 gal
05/04/95	New Orleans, LA	Ethyl acrylate	2 lbs
05/05/95	Mobile, AL	Sodium Hydroxide	2 gals
05/10/95	Willard, OH	Flammable liquid elev. temp. NOS	1 pt
05/16/95	Covington, VA	Sulfuric acide	50 gals
05/17/95	Grand Rapids, MI	Carbon dioxide	10 lbs
05/17/95	Cincinnati, OH	Sodium hydroxide solution	1 gal
05/18/95	Erwin, TN	Methanol	5 gals
05/18/95	Cincinnati, OH	Sulfuric acid	1 gal
05/18/95	Jessup, MD	Liquid petroleum gas	10 lbs

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
05/19/95	Hamlet, NC	Sulfuric acid	5 gals
05/25/95	Walbridge, OH	Carbon dioxide	5 lbs
05/25/95	Flomaton, AL	Vinyl chloride	0
05/26/95	Atlanta, GA	Sulfuric acid	30 gals
05/28/95	Jacksonville, FL	Monocarbamide dihydrous	55 gals
-----------	Mobile, AL	Sodium hydroxide	1 pt
06/02/95	Sombra, ON	Methylamine anhydrous	1 pt
06/04/95	Atlanta, GA	Sulfuric acid	1 pt
06/05/95	Flint, MI	Liquified petroleum gas	1 gal
06/05/95	Willard, OH	Ferric sulfate	1 gal
06/06/95	Chattanooga, TN	Flammable liquid NOS	1 lb
06/06/95	Birmingham, AL	Hexamethylenediamine	5 lbs
06/08/95	New Orleans, LA	Methanol	1 gal
06/09/95	Garrett, IN	Hydrochloric acid	1 pt
06/10/95	Covington, VA	Chlorine	25 lbs
06/10/95	Evansville, IN	Phenol, molten	10 gals
06/12/95	Mobile, AL	Flammable liquid NOS	10 gals
06/12/95	Rocky Mount, NC	Crude sulfate turpen	10 gals
06/12/95	Flint, MI	Petroleum distillate	5 gals
06/12/95	Baltimore, MD	Ammonium nitrate	500 lbs
06/15/95	Willard, OH	Butyl acrylate	5 gals
06/15/95	Midland, MI	Ethylene oxide	150 lbs

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
06/16/95	Savannah, GA	Polyaluminum chloride	25 gals
06/18/95	Charleston, SC	Acetic acid, glacial	15 gals
06/20/95	Philadelphia, PA	Hydrogen peroxide	1 gal
06/21/95	Bedford Park, MI	Paint	2 gals
06/22/95	Gauley River, WV	Trimethylamine, anhydrous	10 lbs
06/23/95	Pensacola, FL	Acrylonitrile	1 gal
06/27/95	Aliquippa, PA	Butylacrylate	1 gal
06/27/95	New Orleans, LA	Adhesives	5 gals
07/01/95	Erwin, TN	Combustible liquid NOS	2 gals
07/02/95	Bedford Park, IL	Fuel oil	60 gals
07/03/95	Walbridge, OH	Fluorosilicic acid	1 pt
07/03/95	Tampa, FL	Battery acid	3 gals
07/05/95	Brewton, AL	Sodium chlorate	1 gal
07/06/95	Norfolk, VA	Sodium fluorosilicat	20 lbs
07/06/95	Atlanta, GA	Fuel oil	50 gals
07/07/95	Jacksonville, FL	Env. hax. sub. liquid	3 gals
07/10/95	Richmond, VA	Naptha	1 lb
07/13/95	Augusta, GA	Sulfuric acid	5 gals
07/13/95	Waycross, GA	Sulfuric acid	5 gals
07/14/95	Evansville, IN	Coal tar distillate	1 gal
07/14/95	Newberry, SC	Gasoline	0
07/18/95	Riverdale, IL	Hax. waste solid, NOS	30 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
07/18/95	Curtis Bay, MD	Hydrochloric acid	10 gals
07/29/95	Louisville, KY	Sodium hydrosulfide	1 gal
07/31/95	Erwin, TN	Corrosive liquid NOS	1 qt
07/31/95	New Orleans, LA	Ethoxylate alcohol	1 gal
08/06/95	Columbus, OH	Alcohol, ethoxylated	10 gals
08/07/95	Jacksonville, FL	Sodium hydroxide	3 gals
08/07/95	Hamlet, NC	Sulfuric acid	2 gals
08/09/95	Lakeland, FL	Sulfuric acid	5 gals
08/10/95	Riverdale, IL	Methyl methacrylate	1 gal
08/10/95	Baltimore, MD	Ethyl acrylate	55 gals
08/12/95	Russell, KY	Xylenes	20 gals
08/13/95	Grand Rapids, MI	Petroleum distillate	6 gals
08/13/95	Atlanta, GA	Sulfuric acid	2 gals
08/14/95	Columbus, OH	Xylenes	20 gals
08/15/95	Collier, VA	Fluorosilicic acid	3 gals
08/15/95	Riverdale, IL	Hydrochloric acid	1 lb
08/18/95	Charleston, SC	Waste flammable liquid	2 gals
08/18/95	Nashville, TN	Resin solution	5 gals
08/19/95	Birmingham, AL	Creosote	1 gal
08/19/95	Rocky Mount, NC	Sodium hydroxide solution	5 gals
08/20/95	Pensacola, FL	Ethyl-n-butylamine	1 gal
08/20/95	Clifton Forge, VA	Crude sulfate turpen	5 gals

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
08/21/95	New Orleans, LA	Naphtha	1 gal
08/21/95	Midland, MI	Sodium hydroxide	5 gals
08/23/95	Grand Rapids, MI	Methyl T butyl ether	6 gals
08/24/95	Raleigh, NC	Nitrobenzene	1 gal
08/25/95	Detroit, MI	Dinitrol	2400 lbs
08/25/95	Atlanta, GA	Chloronitrobenzene	2 lbs
08/25/95	Atlanta, GA	Chloronitrobenzene	1 lb
08/28/95	Willard, OH	Waste Comb. liquid NOS	1 qt
08/29/95	Cincinnati, OH	Envir. haz. sub. liquid NOS	1 qt
09/02/95	Cincinnati, OH	Ethylacrylate	1 pt
09/02/95	Knoxville, TN	Gasoline	2 gals
09/06/95	Willard, OH	Butylacrylate	1 gal
09/18/95	Walbridge, OH	Combustible liquid	1 qt
09/23/95	Memphis, TN	Vinyl acetate	5 gals
09/23/95	Willard, OH	Ethyl acrylate	1 gal
09/26/95	Dearborn, MI	Anhydrous ammonia	1 qt
09/28/95	Charlotte, NC	Fuel oil	200 gals
09/28/95	Walbridge, OH	Butyraldehyde	2 lbs
10/01/95	Richmond, VA	Ferric sulfate	5 gals
10/07/95	Jacksonville, FL	Butyl benzyl phthala	5 gals
10/13/95	Charleston, SC	Terpene hydrocarbons	1 pt
10/14/95	Florence, SC	Sulfuric acid	1 gal

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
10/18/95	Pittsburgh, PA	Env. haz. sub.	1 lb
10/18/95	Willard, OH	Toluene & xylene	1 gal
10/20/95	Charlotte, NC	Potassium hydroxide	1 gal
10/20/95	Richmond, VA	Chlorine	1 lb
10/23/95	Willard, OH	Ethyl mercaptan	1 lb
10/23/95	Willard, OH	Pyrophoric liquid	0*
10/23/95	Beckley, WV	Ammonium nitrate	10 tons
10/24/95	Lakeland, FL	Sulfuric acid	2 gals
10/25/95	Savannah, GA	Toluene diisocyanate	10 gals
10/25/95	Savannah, GA	Hydrogen peroxide	5 gals
10/26/95	Cumberland, MD	Ethyl mercaptan	10 lbs
10/26/95	Johnson City, TN	Diesel fuel	25 gals
10/27/95	Jessup, MD	LPG	1000 gals
10/28/95	Bedford Park, IL	Fuel oil	150 gals
10/29/95	Molino, FL	Liquid petroleum gas	0
10/29/95	Molino, FL	Sodium hydroxide	12000 gals
11/01/95	Charleston, SC	Para-xylenes	5 gals
11/01/95	Pensacola, FL	Pinene	5 gals
11/06/95	Waycross, GA	Acetone	2 gals
11/07/95	Cumberland, MD	Hydrochloric acid	2 lbs
11/08/95	Seneca, IL	Anhydrous ammonia	0
11/08/95	Seneca, IL	Ammonium nitrate	6 tons

*** Quantity too small to measure**

CSX Hazardous Material Reportable Incidents
1991 - 1995

Date	Location	Commodity	Quantity
11/08/95	Seneca, IL	Ammonium nitrate	4 tons
11/10/95	Willard, OH	Potassium hydroxide	2 gals
11/10/95	Russell, KY	Sulfuric acid	2 gals
11/13/95	Hamlet, NC	Other regulated sub	10 gals
11/13/95	S. Charleston, WV	Trimethylamine	1 lb
11/14/95	Birmingham, AL	Vinyl toluene	1 gal
11/20/95	Augusta, GA	Sulfuric acid	1 gal
11/20/95	Evansville, IN	Molten sulfur	1 lb
11/22/95	New Orleans, LA	Hydrochloric acid	1 gal
11/24/95	Bradenton, FL	Diesel fuel	100 gals
11/27/95	Jacksonville, FL	Ethanolamine	10 gals
11/29/95	Birmingham, AL	Sodium hydroxide solution	10 gals
11/30/95	Baltimore, MD	N-propyl acetate	1 gal
12/01/95	Rocky Mount, NC	Ferrous chloride, solution	5 gals
12/08/95	Grand Rapids, MI	Liquid petroleum gas	1 pt
12/08/95	Mobile, AL	Potassium hydroxide	1 gal
12/10/95	Evansville, IN	Combustible NOS	1 pt
12/12/95	New Orleans, LA	Hydrochloric acid	1 pt
12/16/95	Akron Jct, OH	Methanol	10 gals
12/17/95	Hamlet, NC	Nitrobenzene	1 pt
12/22/95	Richmond, VA	Alcoholic beverages	2 gals

*** Quantity too small to measure**

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
01/01/91	Camden, NJ	Angydrous ammonia	10
01/14/91	Jefferson, IN	Phosphorus white, in water	<1
01/19/91	Gauley Bridge, WV	Toleune	<1
01/24/91	Columbus, OH	Hydrochloric acid	<1
02/03/91	Old Bridge, NJ	Fuming sulfuric acid	<1
02/06/91	Allentown, PA	Fertilizer amoniating solution	<1
02/08/91	Binghamton, NY	Pyridine	<1
02/09/91	Avon, IN	Argon, refigerated liquid	<1
02/23/91	Newark, NJ	Sec-Butlylamine	1-10
02/23/91	Newark, NJ	Angydrous ammonia	<1
02/25/96	Baltimore, Md	Sulfuric acid	<1
02/25/91	Linden, NJ	Acetone	<1
02/27/91	Bergen, NJ	Sulfuric Acid	<1
03/03/91	Philadelphia, PA	Methylene chloride	1-10
03/10/91	Conway, PA	Tar Capnor, crude (Napthalene)	50
03/14/91	Niagara Falls, NY	Toluene	<1
03/14/91	Columbus, OH	Propylene	<1
03/14/91	Columbus, OH	Xylene	<1
03/16/91	Elkhart, IN	Propylene	<1
03/30/91	Camden, NJ	Ethyl acrylate, inhibited	<1
04/05/91	Bridgewater, NJ	Acetone	1-10
04/08/91	Cotley, MA	Sulfuric acid	>1
04/08/91	Grand Rapids, MI	Murstic acid	<1
04/12/91	Kearny, NJ	Tetrahydrofuran	<1

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
04/15/91	Gauley Bridge, WV	Trimethylamine anhydrous	<1
04/16/91	Bayonne, NJ	Petroleum naptha	<1
04/18/91	Lordstown, OH	Battery wet, filled with acid	1-10
04/24/91	Reading, PA	Ethyl acrylate, inhibited	<1
04/27/91	Columbus, OH	Formaldehyde	<1
04/30/91	Syracuse, NY	Hydrochloric Acid	1-10
05/07/91	Philadelphia, PA	Chromium, benzene	20
05/08/91	Columbus, OH	Methyl methacrylate, monomer, inhibited	<1
05/13/91	Jefferson, IN	Phosphoric acid	<1
05/14/91	Elkhart, IN	Argon, refrigerated liquid	<1
05/20/91	Danville, IL	Sodium hydroxide solution	<1
05/24/91	Columbus, OH	Paint related material	1-10
05/25/91	Avon, IN	Hydrochloric acid	<1
05/29/91	Columbus, OH	Phosphoric fertilizer solution	<1
06/03/91	Fairless Hills, PA	Toluene & Methanol	<1
06/06/91	Columbus, OH	Liquified petroleum gas	<1
06/10/91	St. Louis, IL	Isofenphos	<1
06/10/91	E. St. Louis, IL	Formalin	<1
06/14/91	Oswego, NY	Radioactive material n.o.s.	<1
06/21/91	Camden, NJ	Nitrating acid, mixture	<1
06/24/91	Indianapolis, IN	Argon, refirgerated liquid	<1
06/27/91	Indianapolis, IN	Coal tar, distillate	1-10
07/03/91	Conway, PA	Ethyl alcohol	<1
07/03/91	Conway, PA	Sulfuric acid	<1

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	Location	Commodity	Quantity
07/03/91	Lexington, OH	Sulfuric acid, spent	1-10
07/06/91	Elkhart, IN	Cupric chloride solution	1,500
07/06/91	Avon, IN	Ferric chloride, solution	1,450
07/10/91	Diamond, WV	Ethyl acetate	<1
07/22/91	Columbus, OH	Alkylbenzene sulfonic acid	1-10
07/25/91	Detroit, MI	Sodium hydroxide, liquid	1-10
08/02/91	Manville, NJ	Denatured alcohol	1-10
08/03/91	Conway, PA	Hydrogem peroxide solution	1-10
08/07/91	Old Bridge, NJ	Hydrocholoric acid	1-10
08/10/91	Selkirk, NY	Argon, refrigerated liquid	<1
08/16/91	Danville, IL	Sulfuric acid	<1
08/19/91	Akron, OH	Hydrochloric acid	1-10
08/19/91	Buffalo, NY	Hydrochloric acid	<1
08/23/91	Dickinson, WV	Butyl alcohol	<1
08/26/91	Danville, IL	Sulfuric acid	<1
08/29/91	Baltimore, MD	Battery wet, filled with acid	<1
08/30/91	Cresson, PA	Butyl acrylate	<1
08/30/91	Cresson, PA	Ethyl acrylate	<1
09/05/91	LaPorte, IN	Anhydrous ammonia	<1
09/05/91	Columbus, OH	Phosphoric acid	<1
09/06/91	Conway, PA	Hydrochloric acid	1-10
09/06/91	Columbus, OH	Additives, fuel oil, gasoline or lub oil	<1
09/14/91	Avon, IN	Methyl methacrylate, monomer, inhibited	<1
09/16/91	Harrisburg, PA	Paint	<1

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	Location	Commodity	Quantity
09/24/91	Whiting, IN	Propylene	<1
09/24/91	Danville, IL	Sodium hydroxide, liquid	<1
09/27/91	Columbus, OH	Sodium hydroxide solution	<1
10/04/91	Diamond, WV	Methyl ethyl ketone	<1
10/06/91	Macedonia, OH	Butadiene, inhibited	<1
10/07/91	Institute, WV	Hydrochloric acid	<1
10/08/91	Jefferson, IN	Phosphoric acid	<1
11/01/91	Columbus, OH	Xylene ethylbenzene	<1
11/11/91	Baltimore, MD	Hydrochloric acid	<1
11/11/91	Dickinson, WV	Glycol ethers	<1
11/15/91	Chicago, IL	Methyl tert-butyl ether	<1
11/18/91	Diamond, WV	Methyl amylketone	<1
11/21/91	Camdem, NJ	Hydrochloric acid	<1
11/23/91	Bedford, OH	Hydrochloric acid	1-10
12/04/91	Diamond, WV	Methyl ethyl ketone	1-10
12/19/91	Kenton, OH	Phenol formaldehyde	300
12/28/91	Elkhart, IN	Hydrochloric acid	<1
01/07/92	Brownsville, PA	Petroleum Naptha	<1
01/09/92	Columbus, OH	Sodium hydroxide, liquid	<1
01/10/92	Attica, NY	Butane	1.10
01/19/92	Fortville, IN	Phosphorus pentasulfide	<1
01/27/92	Dickenson, WV	Trimethylamine, anhydrous	<1
02/03/92	Baltimore, MD	Sulfuric acid	<1
02/12/92	Brownsville, PA	Petroleum Naptha	<1

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
02/26/92	Lyons, NY	Anhydrous ammonia	<1
02/29/92	Paulsboro, NJ	Isobutane	<1
03/20/92	W. Deptford, NJ	Propylene	<1
03/23/92	Ashley, OH	Ammonium nitrate fertilizer	500#
04/08/92	Selkirk, NY	Sulfuric acid	<1
04/19/92	Baltimore, MD	Phosphuric acid	1-10
04/20/92	Camden, NJ	Nitric acid, fuming	<1
04/20/92	Paulsboro, NJ	Propylene	<1
04/21/92	Walbridge, OH	Hydrochloric acid	<1
04/23/92	Newark, NJ	Wasted, corrosive liquid, n.o.s.	<1
05/07/92	Akron, OH	Trimethylamine	<1
05/13/92	Sharonville, OH	Alcoholic beverage	1-10
05/15/92	Cleveland, OH	Haz Waste, liq. N.o.s.	1-10
05/16/92	Walbridge, OH	Methyl ethyl ketone	1-10
05/20/92	Danville, IL	Sulfuric Acid	<1
05/20/92	Plainfield, IN	Argon refrigerated liquid	6 tons
05/21/92	Fort Wayne, IN	Anhydrous ammonia	<1
05/27/92	Conway, PA	Fuel oil	1-10
06/01/92	Maraine, OH	Sodium hydroxide, liquid	1-10
06/28/92	Plainfield, IN	Sulfuric Acid	<1
07/15/92	Morrisville, PA	Flammable liquid, n.o.s.	1-10
07/17/92	Reybold, DE	Hydrochloric acid	200
07/18/92	Grand Rapids, Mi	Hydrochloric acid	<1
07/27/92	Campbell Hall, NY	Chlorine	<1

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
07/27/92	Dickinson, WV	Dimethlformamide	<1
07/29/92	South Kearney, NJ	Isopropanol	1-10
07/30/92	Buffalo, NJ	Hydrochloric acid	1-10
08/02/92	Chicago, IL	Hydrocracked distallte	40
08/10/92	Conway, PA	Monopropylene glycol monobutyl ether	1-10
08/17/92	Avon, IN	Potassium hydroxide	1-10
08/25/92	Philadelphia, PA	Ethylacrylate inhibited	<1
08/29/92	Enola, PA	Carbon dioxide, refrigerated liquid	15
08/31/92	Kenton, OH	Phosphoric acid	<1
09/04/92	Walbridge, OH	Methyl ethyl ketone	20
09/08/92	Enola, PA	Carbon dioxide, refrigerated liquid	20
09/13/92	Towanda, PA	Adipic acid	700#
09/16/92	Danville, IL	Sodium hydroxide solution	<1
09/24/92	Selkirk, NY	Ethylene glycol monomethyl ether	1-10
09/26/92	Buffalo, NY	Fufuryl mercaptan	<1
09/29/92	Columbus, OH	Crude oil, petroleum	1-10
10/02/92	Enola, PA	Sulfuric acid	<1
10/28/92	Danville, IL	Sulfuric acid	<1
11/12/92	Hawthorne, IN	Sulfuric acid	<1
11/21/92	Painesville, OH	Xylene	1-10
12/02/92	Belle, WV	Methyl mercaptan	<1
12/12/92	Indianapolis, IN	Ploy Alky Pyridines	1-10
12/27/92	W. Springfield, MA	Butyraldehyde	1-10
01/01/93	North Haven, CT	Sodium hydroxide, solution	Vapor

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
01/16/93	Allston, MA	Adhesives	10
01/25/93	Newark, NJ	Methyl alcohol	22 oz
01/25/93	Royersford, PA	Hydrogen peroxide stab.	1
01/29/93	Enoia, PA	Hydrochloric acid	Vapor
02/10/93	Walbridge, OH	Ferrous chloride, solution	1
03/03/93	Detroit, MI	Diethyl benzene	100
03/03/93	Columbus, OH	Sodium hydroxide	1
03/05/93	Conway, PA	Ethyl acrylate, inhibited	Vapor
03/09/93	Cleveland, OH	Sodium hydroxide, solution	4,000
03/19/93	Jeffersonville, IN	Hydrochloric acid, solution	<1
03/22/93	Selkirk, NY	Methyl ethyl ketone	1
03/22/93	Gary, IN	Methyl acrylate, inhibited	8
04/27/93	Columbus, OH	Environmentally haz. sub. NOS (naphthalene)	Negligible
04/29/93	Cleveland, OH	Calcium carbide	75 lbs
04/30/93	Camden, NJ	Flammable liquid NOS	50
05/03/93	Conway, PA	Flammable liquid NOS	100
05/10/93	Conway, PA	Monoethanolamine	2
05/11/93	Conway, PA	Hydrogen peroxide	20
05/13/93	Columbus, OH	Sodium hydroxide	Negligible
05/20/93	Conway, PA	Methanol, waste	1
05/24/93	Avon, IN	Titanium tetrachloride	Negligible
06/02/93	Lima, OH	Carbon dioxide refrigerated liquid	Negligible
06/03/93	Sturgis, MI	Anhydrous ammonia	Negligible
06/11/93	Philadelphia, PA	Sulfuric acid	Negligible

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
06/16/93	Newark, NJ	Environmentally haz. sub. liquid NOS	5
06/18/93	Avon, IN	Sulfuric acid	None
06/19/93	Boston, MA	Corrosive liquid NOS	75
06/29/93	Selkirk, NY	Argon, refrigerated liquid	5
06/29/93	Mansfield, OH	Environmentally haz. substance solid NOS	
06/30/93	Toledo, OH	Hazardous waste solid NOS	1
07/14/93	Enola, PA	Corrosive liquid, NOS	Negligible
07/15/93	Avon, IN	Ethyl alcohol solution	
07/21/93	Detroit, MI	Ferric chloride solution	2,500
07/21/93	Selkirk, NY	Corrosive liquid, NOS	Negligible
07/22/93	Selkirk, NY	Sulfuric acid	Negligible
07/27/93	Elkhart, IN	Hydrochloric acid, solution	1
07/28/93	Allentown, PA	Sulfuric acid	1
08/01/93	Elkhart, IN	Hydrochloric acid	250
08/03/93	Toledo, OH	Hazardous material solid, NOS	0.5 qt
08/05/93	Allentown, PA	Fluosulfuric acid	2
08/12/93	Philadelphia, PA	Hydroflouric acid, solution	Negligible
08/19/93	Buffalo, NY	Hydrochloric acid	1
08/20/93	Burns Harbor, IN	Hydrochloric acid	Negligible
08/23/93	Linden, NJ	Petroleum naptha	4
08/23/93	Port Reading, NJ	Sulfuric acid	1
08/25/93	Linden, NJ	Dipropylene methyl ether	20
08/25/93	Linden, NJ	Caustic potash, liquid	Negligible
08/28/93	Chicago, IL	Ink	24

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
08/30/93	Albany, NY	Orthoxylene	100
09/02/93	Niagara Falls, NY	Hydrochloric acid	16 oz
09/05/93	Allentown, PA	Zinc chloride solution	Negligible
09/11/93	Selkirk, NY	Sodium hydroxide solution	1 qt
09/12/93	Conway, PA	Sulfur, molten	1.5
09/14/93	Kenton, OH	Carbolic acid, solid	1 pt
09/16/93	Buffalo, NY	Sulfuric acid	1.5
09/20/93	Chester, PA	Petroleum gas, liquefied	Negligible
10/04/93	Macedon, NY	Carbon dioxide, refrigerated liquid	None
10/04/93	Macedon, NY	Carbon dioxide, refrigerated liquid	None
10/07/93	Havre De Grace, MD	Anhydrous ammonia	
10/19/93	Niagara Falls, NY	Chlorine	
10/20/93	Cleveland, OH	Potassium hydroxide solution	1
11/09/93	Port Reading, NJ	Comb. liquid NOS	10
11/17/93	Newark, DE	Carbon dioxide, refrigerated liquid	Unknown
12/20/93	Niagara Falls, NY	Vinyl chloride, inhibited	Not Determined
01/11/94	Barberton, OH	Chlorine	2 lbs
01/19/94	Columbus, OH	Ferrous chloride solution	5
01/24/94	Elkhart, IN	Methanol	1 qt
01/25/94	Macedonia, OH	Chlorobenzene	Negligible
01/25/94	Macedonia, OH	Chlorobenzene	Negligible
01/30/94	Conway, PA	Methanol	30,000
02/06/94	Buffalo, NY	Chlorine	Negligible

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
02/07/94	Buffalo, NY	Chlorine	Negligible
02/07/94	Buffalo, NY	Sodium hydroxide solution	1 pt
02/10/94	Buffalo, NY	Methylmethacrylate	7,000
02/15/94	Baltimore, MD	Sulfur dioxide, liquefied	Negligible
02/19/94	Midland, PA	Petroleum distillates, NOS	1
02/22/94	Niagara Falls, NY	Sulphuric acid	2
03/15/94	Linden, NJ	Cyclohexane	5
03/16/94	Allentown, PA	Phosphoric acid	1
03/27/94	Elkhart, IN	Ammonia, anhydrous liquid	Negligible
03/28/94	Columbus, OH	Flammable liquid elev. temperature NOS	1
04/16/94	Old Bridge, NJ	Hydrochloric acid	1 qt
04/19/94	Niagara Falls, NY	Chlorotoluenes	1 qt
04/26/94	Columbus, OH	Caustic alkali liquids, NOS	1 cup
04/29/94	Conway, PA	Hydrochloric acid	
04/29/94	Conway, PA	Hydrochloric acid	
05/03/94	Mill Hall, PA	Anhydrous ammonia	Negligible
05/06/94	Townsend, DE	Phosphoric acid	5
05/09/94	Selkirk, NY	Fuel oil	26
05/10/94	Selkiik, NY	Styrene monomer, inhibited	Negligible
05/10/94	Painesville, OH	Comb. liquid NOS (petroleum)	12 oz
05/13/94	Effingham, IL	Petroleum distilates, NOS	0.5
05/17/94	Camden, NJ	Ethylacrylate, inhibited	1 qt
05/17/94	Buffalo, NY	Sulfuric acid spent	Negligible
05/21/94	Allston, MA	Naphta solvent	5

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
05/23/94	North Chicago, IL	Dichloromethane	100
05/28/94	Philadelphia, PA	Dicyclopentadiene	Vapor
06/03/94	Camden, NJ	Hydrogen peroxide	2
06/03/94	Buffalo, NY	Hydrochloric acid	2
06/08/94	Buffalo, NY	Corrosive liquid (ferrous chloride)	1-2
06/09/94	Chicago, IL	Flammable liquid, NOS	60
06/09/94	Chicago, IL	Resin solution	
06/09/94	Conway, PA	Zinc chloride solution	2
06/10/94	Walbridge, OH	Hydrochloric acid	Negligible
06/14/94	Columbus, OH	Argon, refrigerated liquid	Negligible
06/14/94	Solvay, NY	Environmentally haz. substance (chlor-hydro	Negligible
06/16/94	Hagerstown, MD	Carbon dioxide, refrigerated liquid	Unknown
06/20/94	Selkirk, NY	Fuel oil	5
06/28/94	Canton, OH	Argon, refrigerated liquid	2,200
07/05/94	Swatara Township, PA	Hydrochloric acid solution	1-2
07/06/94	Camden, NJ	Nitric acid	1-3
07/07/94	Niagara, NY	Liquefied petroleum gas	Negligible
07/07/94	Lima, OH	Ammonia, anhydrous, liquified	
07/08/94	Mansfield, OH	Compounds, cleaning liquid	1-3
07/09/94	Buffalo, NY	Nitric acid	Negligible
07/11/94	Buffalo, NY	Carbon dioxide, refrigerated liquid	Unknown
07/12/94	Bayonne, NJ	Hydrogen peroxide, stabil.	1
07/15/94	Selkirk, NY	Sulfuric acid	2

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
07/16/94	Walbridge, OH	Fluorosilicic acid	100
07/21/94	Highspire, PA	Elev. temp. matl., liquid NOS	1 qt
07/26/94	Selkirk, NY	Fluorosilicic acid	Negligible
08/08/94	Buffalo, NY	Carbon dioxide, refrig. liquid	Unknown
08/08/94	Wilmington, DE	Chlorobenzene (residue)	Negligible
08/10/94	Nitro, WV	Potassium hydroxide, solution	3
08/17/94	Mentor, OH	Vinyl acetate, inhibited	
08/24/94	Selkirk, NY	Methanol (residue)	1+
08/25/94	Conway, PA	Hydrochloric acid solution	0.5
08/28/94	Baltimore, MD	Argon, refrigerated liquid	Unknown
09/08/94	Allentown, PA	Fluorosulfonic acid	1 pt
09/13/94	Toledo, OH	Hazardous waste solid, NOS	1 lb
09/20/94	Niagara Falls, NY	Sodium hydroxide solution	1
09/23/94	Buffalo, NY	Sodium hydroxide solution	1
09/26/94	Newark, NJ	Ammonia, anhydrous, liquid	Negligible
10/01/94	Conway, PA	Hydrochloric acid	200
10/05/94	Conway, PA	Methanol, waste	1
10/05/94	Conway, PA	Sulfuric acid	1
10/08/94	Port Reading, NJ	Butanols	1
10/11/94	Belle, WV	Methyl ethyl ketone	8 drops/ml
10/14/94	Newark, NJ	Sodium hydroxide solution	Negligible
10/21/94	Allentown, PA	Hydrochloric acid solution	2 qt
10/30/94	Baltimore, MD	Organophosphorus pesticide	15

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
11/01/94	Columbus, OH	Sodium hydroxide, solution	
11/04/94	Selkirk, NY	Formaldehyde solution	2+
11/09/94	Conway, PA	Environmentally haz. sub., liquid NOS	1 qt
11/14/94	Niagara Falls, NY	Sodium hydroxide solution	1
11/15/94	Albany, NY	Sulphuric acid	500
11/21/94	Selkirk, NY	Hydrochloric acid	1
12/02/94	Enola, PA	Methyl alcohol	1 qt
12/02/94	Conway, PA	Flammable liquid, NOS	10
12/05/94	Port Reading, NJ	Sodium hydroxide, solid	Negligible
12/06/94	Newark, NJ	Hydrogen peroxide aqueous	1 pt
12/14/94	Philadelphia, PA	Hydrochloric acid, solution	Negligible
12/17/94	York, PA	Ammonia solutions-residue	
12/20/94	Sayreville, NJ	Hydrochloric acid, solution	Negligible
12/21/94	Newark, NJ	Fluorosilicic acid	100
12/23/94	Philadelphia, PA	Styrene monomer, inhibited	
12/27/94	Newark, NJ	Chlorine	
01/07/95	Baltimore, MD	Ammonia, anhydrous, liquefied	<1
01/12/95	Elkhart, IN	Diesel fuel	10-100
01/13/95	Jersey City, NJ	Methanol	1-10
01/13/95	Walbridge, OH	Hydrochloric acid, solution	1-10
01/14/95	Columbus, OH	Hydrochloric acid, solution	<1
01/14/95	Newark, NJ	Hydrochloric acid, solution	<1
01/16/95	Newark, NJ	Polychlorinated biphenyls soil	250 lbs.
01/16/95	Selkirk, NY	Hydrochloric acid, solution	1-10

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	Location	Commodity	Quantity
01/18/95	Port Reading, NJ	Potassium hydroxide, solution	1-10
01/18/95	Cleveland, OH	Sodium hydroxide, solution	NA
01/23/95	Metuchen, NJ	Flammable liquid, NOS	<1
02/19/95	Conway, PA	Styrene monomer, inhibited	<1
02/21/95	East Syracuse, NY	Gasoline	1-10
02/23/95	Hartford, CT	Formaldehyde solution	NA
02/27/95	Pittsburgh, PA	Hydrochloric acid, residue	<1
03/16/95	Detroit, MI	Hazardous waste solid, NOS	10-100
03/18/95	Conway, PA	Compounds, clearing liquid	10-100
03/31/95	Crestline, OH	Paint	>100
04/03/95	Deepwater, NJ	Hazardous waste, liquid, NOS	<1
04/07/95	Columbus, OH	Sodium hydroxide solution	<1
04/13/95	Canton, OH	Hydrochloric acid, solution	<1
04/15/95	Conway, PA	Hazardous waste solid, NOS	>100
04/29/95	Bethlehem, PA	Methanol	1-10
05/08/95	Erie, PA	Chlorine	NA
05/15/95	Sharonville, OH	Petroleum gas, liquefied	10-100
05/22/95	Buffalo, NY	Sulfuric acid	<1
05/26/95	Niagara Falls, NY	Chlorine, residue	<1
05/27/95	Detroit, MI	Waste flammable liquid., NOS	<1
06/02/95	South Kearny, NJ	Sodium hydroxide, solid	<1
06/06/95	Detroit, MI	1,3 Dichioropropanol-2	>100
06/07/95	Newark, DE	Flammable liquids, NOS	<1
06/08/95	Baltimore, MD	Ammonia, anhydrous, liquified	<1

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
06/09/95	Camden, NJ	Carbon dioxide, refrigerated liquid	0
06/09/95	Camden, NJ	Carbon dioxide, refrigerated liquid	0
06/09/95	Baltimore, MD	Flammable liquids, NOS	<1
06/15/95	Hailesboro, NY	Lead Sulfide	>100
06/15/95	Hailesboro, NY	Lead Sulfide	<1
06/15/95	Hailesboro, NY	Lead Sulfide	>100
06/15/95	Hailesboro, NY	Lead Sulfide	>100
06/16/95	Hailesboro, NY	Lead Sulfide	>100
06/19/95	Detroit, MI	Hydrochloric acid solution	<10
06/19/95	Detroit, MI	Hydrochloric acid solution	<10
06/22/95	Gauley Bridge, WV	Trimethylamine	<1
06/23/95	Chapman, PA	Methanol	<1
06/28/95	Jersey City, NJ	Methachloroaniline	<1
06/28/95	Danville, IL	Sulfuric Acid	<1
06/28/95	Conway, PA	Methyl Ethyl Ketone	<1
06/30/95	Jersey City, NJ	Ammonia solutions	1-10
07/01/95	Johnstown, PA	Carbon Dioxide	300 lbs.
07/13/95	Sharonville, OH	Methyl Methacrylate Monomer,	<1
07/13/95	Armitage, OH	N, N-Dimenthyl Formadide	1-10
07/18/95	Trainer, PA	Sulfuric Acid	<1
07/29/95	Conway, PA	Sodium hydroxide	<1
07/31/95	Selkirk, NY	Methyl alcohol	10-100
08/01/95	Bayonne, NJ	Methanol	<1
08/11/95	Buffalo, NY	Hydrochloric acid	<1

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
08/15/95	Danville, IL	Sulfuric acid	<1
08/16/95	Plainfield, IN	Acetaldehyde	<1
08/16/95	Elizabeth, NJ	Methyl ethyl ketone	>100
08/19/95	Elkhart, IN	Combustible liquid, NOS	1-10
08/21/95	Marysville, OH	Extract, liquid, flavoring	10-100
08/22/95	Indianapolis, IN	Sulfuric acid	1-10
08/27/95	Cleveland, OH	Gasoline	1-10
09/06/95	Port Reading, NJ	Potassium hydroxide, solution	1-10
09/07/95	Albany, NY	Xylene	1-10
09/10/95	Avon, IN	Flammable liquids, NOS, solution	<1
09/11/95	Painsville, OH	Petroleum oil	<1
09/15/95	Newark, DE	Potassium hydroxide, solution	1-10
09/25/95	Portage, IN	Styrene monomer, inhibited	<1
09/27/95	West Springfield, MA	Methanol	<1
09/29/95	Chapman, PA	Methanol	<1
10/01/95	Old Bridge, NJ	Hydrochloric acid, solution	1-10
10/05/95	Albany, NY	Sodium hydroxide, solution	1-10
10/10/95	Philadelphia, PA	Sodium hydroxide, solution	10-100
10/11/95	Allentown, PA	Ammonia, anhydrous, liquified	<1
10/11/95	Hammond, IN	Diesel fuel	10-100
10/12/95	Indianapolis, IN	Acetaldehyde	<1
10/17/95	Belle, WV	Butanols	<1
10/20/95	Camden, NJ	Ethyl acrylate, inhibited	<1

Conrail Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
10/26/95	Trainer, PA	Petroleum gas, liquid	<1
10/31/95	Toledo, OH	Waste envir. hazardous sub., NOS	45 lbs.
11/01/95	Erie, PA	Corrosive liquid, NOS	<1
11/02/95	Bryonne, NJ	Ethanolamine	<1
11/04/95	Youngstown, OH	Argon, refrigerated liquid	<1
11/09/95	South Kearny, NJ	Benzaldehyde	1-10
11/11/95	Conway, PA	Phosphoric acid	1-10
11/25/95	Columbus, OH	Toluene	<1
11/28/95	Bombay, NY	Potassium hydroxide, solution	1-10
12/14/95	Niagara Falls, NY	Residue I/c sodium	N/A
12/14/95	Fonda, NY	Fluorosilicic acid - residue	<1
12/14/95	Fonda, NY	Sodium hydroxide, solution	>100
12/14/95	Fonda, NY	Chlorine	N/A
12/14/95	Fonda, NY	Chlorine	N/A
12/14/95	Fonda, NY	Hydrochloric acid, solution	N/A
12/22/95	Funkhauser, IL	Ethanolamine	N/A
12/22/95	Funkhauser, IL	Butyraldehyde, solution	>100
12/22/95	Funkhauser, IL	Combustible liquid, NOS	1-10
12/22/95	Funkhauser, IL	Alkyl phenols, solids, NOS	>100
12/22/95	Funkhauser, IL	Alkyl phenols, solids, NOS	>100

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
01/02/91	Atlanta, GA	Hydrochloric acid	<1 pint
01/07/91	Mobil, AL	Flammable liquid, poisonus NOS (acrylonitrile propionitrile)	20 gal
01/08/91	Chattanooga, TN	Residue, last contained liquified petroleum gas	vapor
01/19/91	New Orleans, LA	Sufuric acid	1 gal
01/22/91	Birmingham, AL	Liquified petroleum gas	vapor
01/26/91	Knoxville, TN	Acetic acid, glacial	2000 gal
02/04/91	Valdosta, GA	Sulfuric acid	<1 gal
02/11/91	Columbus, OH	Phosphoric acid	<1 quart
02/11/91	Columbus, OH	Phosphoric acid	<1 quart
02/11/91	Calumet, IL	Methanol	20 gal
02/11/91	Columbus, OH	Phosphoric acid	<1 quart
02/12/91	Linwood, NC	Phosphoric acid	1 quart
02/18/91	Voldosta, GA	Phosphoric acid	1 gal
02/19/91	New Orleans, LA	Liquefied petroleum gas	1 gal
02/22/91	Columbus, OH	Liquefied petroleum gas	vapor
03/02/91	Macon, GA	Battery, wet, filled with acid	20 gal
03/05/91	Hattiesburg, MS	Sodium hydroxide	<1 gal
03/05/91	Chicago, IL	Potassium hydroxide	1 quart
03/08/91	Jacksonville, FL	Carbon dioxide refrigerated liquid	vapor
03/18/91	Cincinnati, OH	Flammable liquid NOS crude sulfate turpentine	5 gal
03/19/91	Doraville, GA	Petroleum distillate	<1 quart
03/21/91	Decatur, IL	Hydrochloric acid	< 1 gal
03/21/91	St. Louis, MO	Petroleum oil, NOS	1 quart

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
03/22/91	McIntosh, AL	Hydrochloric acid	425 gal
03/22/91	Decatur, IL	Hydrochloric acid	10 gal
03/28/91	Garden City, GA	Sulfuric acid	1 gal
03/31/91	N Kansas City, MO	Hazardous sub-liquid NOS, ORM-E, creosote oil	<1 gal
04/03/91	Roanoke, VA	Fuel oil- diesel	<10 gal
04/08/91	Cleveland, OH	Sulfuric acid	<1 gal
04/10/91	Roanoke, VA	Xylene	60 gal
04/11/91	Hampton, GA	Sodium hydroxide	<4 gal
04/24/91	Ludlow, KY	Petroleum oil, NOS	50 gal
04/24/91	Fostoria, OH	Carbon dioxide, refrigerated liquid	<1 gal
04/25/91	Columbus, OH	Acetic anhydride	<1 gal
04/25/91	Gastonia, NC	Sulfuric acid	<1 gal
04/27/91	Louisville, KY	Flammable liquid, NOS	100 gal
05/02/91	Doraville, GA	Toluene	<1 gal
05/03/91	Valdosta, GA	Sulfuric acid	1 pint
05/03/91	Knoxville, TN	Ammonium nitrate fertilizer	4600 lbs
05/06/91	Huntingburg, IN	Potassium hydroxide	1 gal
05/11/91	Louisville, KY	Hydrochloric acid	<1 quart
05/15/91	Conneaut, OH	Inhibited styrene monomer	1 gal
05/15/91	Pell City, AL	Xylene	55 gal
05/16/91	Macon, GA	Flammable liquid NOS, turpentine substitute	1 gal
05/16/91	Decatur, AL	Octyl mercaptan	<1 gal
05/18/91	Stephens, WV	Ammonium nitrate fertilizer	100 lbs

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
05/18/91	Decatur, IL	Hydrochloric acid	vapor
05/24/91	Kenova, WV	Haz. substance, Liq. NOS contains Creosote	<0.5 gal
05/24/91	Linwood, NC	ORM-E, solid NOS merpan, captan tech.	25 lbs
06/04/91	Kenova, WV	Anhydrous ammonia	vapor
06/12/91	Ft. Wayne, IN	Anhydrous ammonia	< 1 quart
06/14/91	Mobile, AL	Sulfuric acid, spent	1 gal
06/22/91	Atlanta, GA	Cresylic acid	1 gal
06/24/91	Chattanooga, TN	Haz. substance solid, NOS adipic acid	600 lbs
06/24/91	Kansas City, MO	Flammable liquid NOS, toluene	<1 gal
06/28/91	Savannah, GA	Sulfuric acid	1 pint
06/29/91	Detroit, MI	Butyl acetate	<1 gal
06/29/91	Kansas City, MO	Sodium hydroxide, solution	1 gal
07/02/91	Lemoyne, AL	Ethyl phosphonothioic dichloride, anhydrous	<1 gal
07/02/91	Clark, VA	Carbon Dioxide, refrigerated liquid	<1 gal
07/09/91	Savannah, GA	Sulfuric acid	1 gal
07/23/91	Savannah, GA	Turpentine, pulp mill liquid	1 pint
07/23/91	Decatur, IL	Hydrochloric acid	<1 gal
07/26/91	Cincinnati, OH	Creosote	<1 gal
07/31/91	Birmingham, AL	Haz. Substance solid, NOS (contains PCB's)	14 gal
08/08/91	East Point, GA	Petroleum naphtha	1 quart
08/13/91	Hopewell, VA	Sulfuric acid	<1 pint
08/21/91	Memphis, TN	Hydrochloric acid	<1 pint
08/25/91	Detroit, MI	Combustible liq. NOS, propylene glycol monomethyl ether acetate	3 gal

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
08/27/91	Columbus, GA	Flammable liquid NOS (pulp mill liquid)	vapor
08/28/91	Buffalo, NY	Potassium hydroxide	1 pint
09/09/91	Louisville, KY	Hydrochloric acid	vapor
09/1091	Roanoke, VA	Caustic soda, liq., sodium hydroxide, liq.	<1 gal
09/10/91	Suffolk, VA	Sodium hydroxide, liquid	<1 gal
09/13/91	Decatur, IL	Hydrochloric acid	vapor
09/15/91	Atlanta, GA	Corrosive liquid, NOS, ferric nitrate	25 gal
09/17/91	Knox, IN	Molten sulfur	13,526 gal
09/17/91	Knox, IN	Molten sulfur	5000 gal
09/26/91	Louisville, KY	LPG - Propylene	<1 lb
09/30/91	Atlanta, GA	Flammable liq., NOS, methyl acetate	<2 gal
10/01/91	Cincinnati, OH	Phenol	1 quart
10/05/91	Bellevue, OH	Butadiene inhibited	<5 gal
10/09/91	Kansas City, MO	Hexane	1.5 gal
10/12/91	Louisville, KY	Hazardous substance, solid, NOS (sodium aluminum sulfate)	3200 lbs
10/16/91	Jackson, TN	LPG	50 gal
10/20/91	Louisville, KY	Haz. substance, solid, NOS (sodium alum. sulfate)	500 lbs
10/28/91	New Orleans, LA	Petroleum naphtha	<1 quart
10/28/91	Kansas City, MO	Petroleum naphtha	1 pint
10/29/91	Chicago, IL	Petroleum naphtha	1 quart
11/03/91	Louisville, KY	Petroleum naphtha	<1 gal
11/08/91	Springfield, IL	Anhydrous ammonia	<1 quart
11/13/91	North K.C., MO	Ethyl acrylate, inhibited	vapor

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
11/16/91	New Orleans, LA	Sodium hydroxide, solution	<1 quart
11/24/91	Jacksonville, FL	Sulfuric acid	5 gal
11/24/91	Charlotte, NC	Sulfuric acid	3 gal
12/02/91	Decatur, IL	Hydrochloric acid	<1 gal
12/05/91	Chamblee, GA	Diesel fuel	5500 gal
12/06/91	Linwood, NC	Phosphoric acid	20 gal
12/08/91	St. Louis, MO	Flammable liquid, NOS (dicyclopentadiene)	1 cup
12/16/91	Nixon, GA	Sodium hydroxide	2 gal
01/02/92	Hanging Rock, OH	Acrylonitrile	vapor
01/10/92	Kansas City, MO	Corrosive liquid, NOS (Petroleum alkylate)	<1 quart
01/12/92	Kansas City, MO	Cresol	1 quart
01/18/92	Dragon, MS	LP Gas	(no form)
01/26/92	Elsmere, KY	Methyl methacrylate monomer, inhibited	5 gal
02/03/92	St. Louis, MO	Acetic anhydride	1 gal
02/08/92	North K.C., MO	Acetic anhydride	1 pint
02/10/92	Linwood, NC	Chlorobenzene	1 gal
02/11/92	Roanoke, VA	Fuel Oil	<1 pint
02/15/92	Decatur, IL	Carbon dioxide, refrigerated liquid	vapor
02/23/92	Memphis, TN	Paint	1 gal
03/08/92	Macon, GA	Phosphoric acid	1 pint
03/09/92	Kenova, WV	Acetone	<1 gal
03/09/92	Greensville, TN	Flammable liq. NOS Ethyl 3-ethoxy propionate	<1 gal
03/10/92	Irondale, AL	Combustible liquid NOS (Octyl mercaptan)	2 gal
03/14/92	Irondale, AL	Flammable liquid NOS (Turpentine)	3 gal

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	Location	Commodity	Quantity
03/22/92	Decatur, IL	Ethylacrylate, inhibited	vapor
03/23/92	Crewe, VA	Ethyl alcohol	12 gal
04/03/92	North K.C., MO	Anhydrous ammonia	<1 pint
04/06/92	North K.C., MO	Acetic anhydride	1 pint
04/09/92	Kannapolis, NC	Hydrogen peroxide, solution	1 gal
04/13/92	Cincinnati, OH	Denatured alcohol	<1 gal
04/13/92	Cincinnati, OH	Anhydrous ammonia	<1 gal
04/15/92	Savannah, GA	Anhydrous ammonia	<1 gal
04/15/92	Roanoke, VA	Sulfuric acid	5 gal
04/16/92	Mt. Vernon	Phosphoric acid	5 gal
04/23/92	North K.C., MO	Ethyl acrylate, inhibited	vapor
04/23/92	Rock Hills, SC	Sodium hydroxide	<1 gal
04/24/92	North K.C., MO	Hexane	<1 gal
04/28/92	Louisville, KY	Methyl methacrylate monomer, inhibited	3 gal
04/30/92	Atlanta, GA	Ethylenediamine	5 gal
05/07/92	Louisville, KY	Hydrochloric acid	<1 gal
05/07/92	Richmond, VA	Sulfuric acid	<2 gal
05/08/92	St. Louis, MO	Corrosive liquid NOS (Diamethyl acetyl succinate)	<1 pint
05/15/92	Granite City, IL	Anhydrous ammonia	<1 pint
05/20/92	Fayetteville, NC	Denatured alcohol	<1 gal
04/06/92	Danville, VA	Sodium hydroxide, solution	<1 gal
04/08/92	Columbus, OH	Phenol	<1 gal
05/27/92	Kenova, WV	Anhydrous ammonia	<20 gal

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
06/05/92	Decatur, AL	Sodium hydroxide, solution	<1 gal
06/07/92	Macon, GA	Sulfuric acid	10 gal
06/10/92	Chicago, IL	Hydrochloric acid, solution	<2 gal
06/11/92	Port Wentworth, GA	Anhydrous ammonia	67 lbs
06/18/92	Decatur, IL	Cresol	1 pint
06/21/92	Columbus, OH	Sodium hydroxide, liquid	<1 gallon
06/28/92	Crewe, VA	Sulphuric acid	1 quart
06/30/92	Goldsboro, NC	Fuel aviation, turbine engine	<2 quarts
07/02/92	Williamson, WV	Environmentally Hazardous sub., solid, NOS	<1 lbs
07/13/92	Lafayette, IN	Hydrochloric acid	<1 pint
07/13/92	Columbus, OH	Chlorine-residue	vapor
07/25/92	Atlanta, GA	Comb. liquid, NOS, Ethylene butyl ether	2 gal
07/26/92	Birmingham, AL	Isopropylamine	< 1 gal
07/28/92	Bellevue, OH	LPG (mixed butane)	<1 gal
07/29/92	Linwood, NC	Potassium hydrochloric	<1 quart
07/30/92	Fostoria, OH	Carbon dioxide, refrigerated liquid	< 1 gal
08/01/92	Danville, KY	Phosphoric acid	<1 gal
08/03/92	Decatur, IL	Phosphoric acid	1 pint
08/04/92	Louisville, KY	Hydrochloric acid	<0.5 pint
08/08/92	Columbus, GA	Sulfuric acid	2-3 gal
08/09/92	Decatur, IL	Carbon dioxide, refrigerated liquid	< 1gal
08/14/92	Loudon, TN	Methl tert-butyl ether	1 gal
08/19/92	Decatur, AL	Hexamethylenediamine solution	30 gal

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
08/20/92	Chesapeake, VA	Corrosive liquid, NOS (Acetic acid)	<1 gal
08/23/92	Louisville, KY	Hydrochloric acid	<1 pint
08/29/92	Atlanta, GA	Carbon dioxide, refrigerated liquid	< 1 gal
08/30/92	Moberly, MO	Pottasium hydroxide	1 pint
09/01/92	Springfield, IL	Waste, flammable liquid NOS, isopropyl acetate, ethanol benzene	<1 pint
09/02/92	Linwood, NC	Hydrochloric acid	<1 pint
08/31/92	Decatur, IL	Comb. Liq., NOS, butyl acrylate	1 pint
09/04/92	Portsmouth, OH	Sulfuric acid	<1 pint
09/06/92	Sheffield, AL	Phosphoric acid	<1 pint
09/10/92	Madison, AL	Hexafluoropropylene	1 pint
09/12/92	Kansas City, MO	Corr. mtl. NOS - Fatty tertiary amines	0
09/15/92	Kenova, WV	Hazardous Substance, liquid, ORM-E, NOS (contains creosote)	1 quart
09/25/92	Louisville, KY	Sodium hydroxide	35 gal
09/28/92	Cincinnati, OH	Carbon dioxide, refrigerated liquid	<1 gal
09/28/92	Linwood, NC	Hydrogen peroxide solution	1 gal
09/28/92	Melvindale, MI	Ferrous chloride, solution	0
09/29/92	Mobile, AL	Flammable liquid, NOS isobutyraldehyde	2 ounces
10/02/92	North K.C., MO	Anhydrous ammonia	0
10/02/92	Ft. Wayne, IN	Ferrous chloride, solution	0
10/09/92	Kansas City, MO	Anhydrous ammonia	0
10/10/92	Garden City, GA	Anhydrous ammonia	70 lbs
10/12/92	North Kansas City, MO	Denatured alcohol	0

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
10/19/92	Springfield, IL	Ethyl acrylate, inhibited	0
10/22/92	Columbus, OH	Methyl alcohol	0
10/26/92	Linwood, NC	Phosphoric acid	0
11/1/92	Macon, GA	Hydrochloric acid	0
11/03/92	Doraville, GA	Petroleum naptha	0
11/14/92	Chesapeake, VA	Corrosive liquid, NOS, Fatty teritary amines	<1 quart
11/21/92	Bristol, TN	Liquified petroleum gas	10 gal
11/23/92	Bellevue, OH	Denatured alcohol	36 gal
11/24/92	Kenova, WV	Sulfuric acid	<1 pint
11/24/92	Columbus, OH	Flammable liquid, NOS, Divinylbenzene	6 ounces
11/27/92	Kannapolis, NC	Sodium hydroxide	2 gal
11/30/92	Memphis, TN	Poisonous solid, NOS, vanadium	1 gal
12/01/92	Portlock, VA	Combustible liquid, NOS, Divinylbenzene	<1 gal
12/13/92	Decatur, AL	Sodium hydroxide	<1 pint
12/17/92	Princeton, WV	Ammonia	<1 gal
12/19/92	Bellevue, OH	Sulfuric acid	<0.5 gal
12/27/92	Jacksonville, FL	Stannic chloride	1 gal
01/02/93	New Orleans, LA	Hydrogen Sulfide	<1 Pint
01/03/93	Decatur, IL	Ethyl Acrylate Inhibited	<1 Pint
01/05/93	Hopewell, VA	Cyclohexanone	1 Gallon
01/06/93	Irondale, AL	Liquefied Petroleum Gas	5 Gallons
01/11/93	Chesapeake, VA	Sulfuric Acid	1 Pint
01/14/93	Chesapeake, VA	Isobutyric Anhydride	8 Ounces
02/03/93	Linwood, NC	Phosphoric Acid	<1 Pint

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
02/03/93	Toledo, OH	Ethyl Acetate	<1 Pint
02/06/93	N Kansas City, MO	Sulfuric Acid	<1 Gallon
02/06/93	Bluefield, WV	Acetic Anhydride	<1 Gallon
02/17/93	Decatur, IL	Denatured Alcohol	<1 Pint
02/21/93	Roanoke, VA	Sulfuric Acid	5 Gallons
02/25/93	Chicago, IL	Butyl Acrylate	1 Pint
02/28/93	Charlotte, NC	Hydrogen Peroxide Solution	1 Gallon
03/10/93	Chattanooga, TN	Hydrochloric Acid	1 Gallon
03/11/93	Shefield, AL	Potassium Hydroxide	1 Gallon
03/08/93	Atlanta, GA	Sulfuric Acid	< 1 Pint
03/16/93	Reidsville, NC	Denatured Alcohol	< 3 Gallons
03/20/93	Frisco, TN	Flammable Liquid N.O.S (Isobutyraldehyde)	1 Quart
03/23/93	Crewe, VA	Sodium Hydroxide	1 Pint
03/24/93	Crewe, VA	Acetic Anhydride	< 1 Gallon
03/29/93	Linwood, NC	Phosphuric Acid	1 Pint
03/29/93	Linwood, NC	Phosphuric Acid	1 Pint
03/30/93	Charlotte, NC	Styrene Monomer Inhibited	1 Gallon
03/31/93	Mobile, AL	Corrosive Liquid Flammable N.O.S. (Isopropalamine)	1 Gallon
04/10/93	Centralia, IL	Angydrous Ammonia	< 1 Gallon
02/05/93	Danville, VA	Sodium Hydroxide Solution	1 Pint
04/13/93	Coosa Pines, AL	Sulfuric Acid	<1 Gallon
04/14/93	Decatur, IL	Hydrochloric Acid	<1 Pint
04/18/93	St. Louis, MO	Butanal	5 Gallons

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
04/19/93	Crewe, VA	Sulfuric Acid	1 Pint
04/19/93	Crewe, VA	Sulfuric Acid	1 Pint
04/20/93	Macon, GA	Phosphuric Acid	2 Gallons
04/26/93	Chaicago, IL	Hydrochloric Acid	Vapor
05/18/93	Erondale, AL	Liquified Petroleum Gas (Residue)	<1 Quart
05/03/93	Linwood, NC	Phosphuric Acid	1 Pint
05/04/93	N Kansas City, MO	Ethyl Acrylate Ingibited	< 1 Pint
05/19/93	Spruce Pines, AL	Arsenic Acid Solution (Residue)	5 Gallons
05/22/93	Linwood, NC	Acetic Angydride	5 Gallons
05/23/93	Crewe, VA	Ethylamine	none
05/25/93	Atlanta, GA	Toluene	2 Gallons
05/27/93	Harleyville, SC	Waste Flammable Liquid N.O.S.	2 Gallons
06/10/93	Louisville, KY	Sulfuric Acid	< 1 Pint
06/10/93	Kansas City, MO	Corrosive Liquid N.O.S. (Fatty Tertiary Amines)	1 Cup
06/19/93	Irondale, AL	Flammable Liquid, N.O.S. (Crude Sulphte Turpentine)	2 Gallons
06/19/93	Winburn, AL	Flammable Liquid, N.O.S. (Crude Sulphte Turpentine)	9 Gallons
06/20/93	Parrish, AL	Ammonium Nitrate Liquid	405 Gallons
06/21/93	Mobile, AL	Chlorine	<1 Pint
06/22/93	Anniston, AL	Carbon Dioxide, Refrigerated Liquid	<1 Pint
06/28/93	Illiopolis, IL	Vinyl Chloride	<1 Pint
07/01/93	Cleveland, OH	Denatured Alcohol	1 Cup

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
07/01/93	Decatur, IL	Hydrochloric Acid	<1 Pint
07/05/93	Harriman, TN	Methylethyl Ketone	27,910 Gallons
07/07/93	Decatur, IL	Hydrochloric Acid	<1 Pint
07/08/93	Crewe, VA	Flammable Liquid N.O.S.	1 Pint
07/14/93	Decatur, IL	Hydrochloric Acid	<1 Pint
07/19/93	Roanoke, VA	Diesel Fuel	<3 Gallons
07/21/93	Roanoke, VA	Diesel Fuel	5 Gallons
07/18/93	N Kansas City, MO	Ethyl Acrylate Inhibited	<1 Pint
07/24/93	Irondale, AL	Petroleum Naptha	8 Gallons
07/25/93	Irondale, AL	Waste Flammable Liquid, N.O.S. (Contains Paracymane, Xylene)	½ Gallon
07/28/93	Jacksonville, FL	Liquified Petroleum Gas	<1 Pint
08/14/93	St.Louis, MO	Alkylamines, N.O.S. (Alkldimethyl Amines)	1 Gallon
08/02/93	Cleveland, OH	Denatured Alcohol	1 Pint
08/07/93	Irondale, AL	Butadiene Inhibited	2 Quarts
08/08/93	Chattanooga, TN	Denatured Alcohol	<1 Pint
08/12/93	Crewe, VA	Ethyl Ether	<1 Pint
08/16/93	Melvindale, MI	Chlorophenols Liquid	2 Pints
08/14/93	N Kansas City, MO	Sulfuric Acid	5.5 Gallons
08/14/93	N Kansas City, MO	Sulfuric Acid	5.5 Gallons
08/17/93	Chamblee, GA	Petroleum Distillate, N.O.S.	1 Pint
08/17/93	Muscle Shoals, AL	Hydrochloric Acid	1 Pint

NS Hazardous Material Reportable Incidents 1991 - 1995			
Date	**Location**	**Commodity**	**Quantity**
08/21/93	N Kansas City, MO	Propionic Acid	<5 Gallons
10/04/93	Atlanta, GA	Hexamethylenediamine	<1 Gallon
09/02/93	Bellevue, OH	Phenol	<1 Pint
09/03/93	Doraville, GA	Petroleum Distillate	1.5 Gallons
09/08/93	Bristol, VA	Phosphoric Acid	<1 Pint
09/11/93	Toledo, OH	Petroleum Naptha	1 Pint
09/02/93	Kenova, WV	ORM-E Liquid N.O.S. (Crude Coal Tar)	.5 Quarts
09/11/93	Roxana, IL	Liquefied Petroleum Gas	Vapor
09/18/93	Crewe, VA	Sodium Hydroxide Solution	<1 Pint
09/15/93	Dallas, GA	Creosote Oil	8,000 Gallons
09/25/93	Louisvillle, KY	Hydrochloric Acid Solution	Vapor
09/26/93	Linwood, NC	Hydrochloric Acid Solution	1 Pint
10/03/93	Louisville, KY	Liquefied Petroleum Gas	Evacuation
10/07/93	Kenova, WV	Anhydrous Ammonia (Residue)	Vapor
10/12/93	Loudon, TN	Denatured Alcohol	2 Gallons
10/13/93	Columbus, GA	Sodium Hydroxide	3-5 Gallons
10/15/93	Linwood, NC	Phosphuric Acid	1 Gallon
10/15/93	Linwood, NC	Phosphuric Acid	1 Pint
10/16/93	Irondale, AL	Corrosive Liquid N.O.S. (Perric Sulfate)	1 Quart
10/22/93	Chicago, IL	Flammable Liquid N.O.S. (Turpentine Sodium Sulfate)	1 Gallon