30060 **SERVICE DATE - MARCH 8, 1999**

SURFACE TRANSPORTATION BOARD
Finance Docket No. 33556

Canadian National Railway Company, Grand Trunk Corporation, and Grand Trunk Western Railroad Incorporated
--Control--
Illinois Central Corporation; Illinois Central Railroad Company; Chicago, Central & Pacific Railroad Company; and Cedar River Railroad Company

EXECUTIVE SUMMARY

The Surface Transportation Board, Section of Environmental Analysis, prepared this Final Environmental Assessment (Final EA) to complete its review of the potential environmental impacts of the Canadian National proposal to acquire Illinois Central. On November 9, 1998, the Board served a Draft Environmental Assessment (Draft EA) on the Parties of Record, and SEA issued the Draft EA to the public. On November 23, 1998, the Board served an errata clarifying certain information in the Draft EA. SEA initiated a 32-day public comment period from November 9 to December 11, 1998 and encouraged the public to participate in the environmental review of the proposed CN/IC Acquisition by commenting on all aspects of the Draft EA and the errata.[1] SEA received 20 comments addressing increased rail traffic, hazardous materials transport, environmental justice, emergency vehicle response, air quality, and noise. This Final EA presents agency and public comments that SEA received on the Draft EA by January 31, 1999 and SEA's response to those comments. It summarizes SEA's environmental review; presents additional environmental analysis that SEA performed in response to the public comments; evaluates minor modifications to the Applicants' Operating Plan; and recommends final environmental mitigation measures for the Board to impose if it decides to approve the proposed Acquisition. As the Draft and Final EA present, SEA believes that the proposed Acquisition would result in several environmental benefits and no significant environmental impacts if its recommended mitigation is imposed. The Board will consider the entire environmental record, the Draft EA and Final EA, all public comments, and SEA's final environmental mitigation recommendations in making its final decision on the proposed CN/IC Acquisition.

CN and IC filed a joint Application and Operating Plan with the Board on July 15, 1998. In their Application, CN sought authority to acquire IC. The Board instituted a proceeding and plans to conduct oral argument on the environmental, economic, and competitive issues of the proposed CN/IC Acquisition on March 18, 1999. The Board will decide to approve or disapprove the proposed CN/IC Acquisition at a voting conference scheduled for March 25, 1999. If the Board approves the proposed CN/IC Acquisition, it may also impose specific conditions, including environmental mitigation conditions. The Board intends to issue its final written decision on the

---

[1] The "Surface Transportation Board" is hereinafter referred to as "the Board"; "Section of Environmental Analysis" is hereinafter referred to as "SEA"; the "Draft Environmental Assessment" is hereinafter referred to as the "Draft EA"; and the "Final Environmental Assessment" is hereinafter referred to as the "Final EA." "CN" stands for "Canadian National Railway Company and its subsidiaries"; "IC" stands for "Illinois Central Corporation and its subsidiaries"; and the "Applicants" hereinafter refers to CN and IC.

proposed CN/IC Acquisition on May 25, 1999. In that decision, the Board will address environmental, economic, and competitive transportation issues and impose any conditions it deems appropriate. Parties who wish to file an administrative appeal of the Board's written decision, including any environmental conditions that the Board may impose, may do so within 20 days of the final written decision date, as provided in the Board's rules. The Board will consider any administrative appeals in a subsequent decision.

During its environmental review process, SEA considered a broad range of environmental issues on a general (or system-wide), regional, and local level. This approach allowed SEA to identify and assess potential environmental impacts and develop reasonable environmental mitigation measures to address potential adverse impacts resulting from increased traffic due to the proposed Acquisition. Throughout its environmental review process, SEA sought input from the public including agencies, elected officials, organizations, businesses, and individuals. In developing reasonable environmental mitigation to address adverse environmental impacts that would result directly from the CN/IC Acquisition, SEA weighed the various perspectives and concerns that the public raised and the range of environmental impacts and issues.

In conducting its environmental analysis, SEA first applied the Board's thresholds for environmental analysis from the Board's environmental rules in the Code of Federal Regulations (CFR) at 49 CFR Part 1105. The Board's rules contain thresholds that apply specifically to air quality, noise, and energy. For issue areas where the Board does not have specific thresholds for environmental analysis, SEA assessed whether it would be appropriate to apply thresholds developed for the recent Conrail Acquisition in this case.[2] SEA concluded that the analysis thresholds developed for the Conrail Acquisition were also appropriate for environmental analyses associated with the proposed CN/IC Acquisition.

The Final EA fully adopts and incorporates the Draft EA and errata to the Draft EA. SEA intends that this Final EA be used in conjunction with the Draft EA and errata to provide complete documentation of SEA's environmental review process.

PURPOSE AND NEED FOR THE PROPOSED CN/IC ACQUISITION

In their Application, CN and IC state that combining their operations to create single-line service would allow greater coordination and efficiency. The Applicants also state that the proposed Acquisition responds directly to shippers' needs for an improved rail infrastructure to handle the rapidly growing north-south trade flows stimulated by the North American Free Trade Agreement.

DESCRIPTION OF THE PROPOSED ACTION

The proposed action consists of the Primary Application, including the Operating Plan and errata to the Application and Operating Plan, which the Applicants submitted to the Board, and

---

[2] Surface Transportation Board, Section of Environmental Analysis. *Final Environmental Impact Statement, CSX Corporation and CSX Transportation, Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company, Conrail Inc., and Consolidated Rail Corporation,* STB Finance Docket No. 33388, May 1998.

Settlement Agreements (agreements between the Applicants and other parties regarding competitive or access issues).

The proposed CN/IC Acquisition would result in an end-to-end coupling of the existing CN and IC systems. While the resulting CN/IC system would cover approximately 18,670 miles, only approximately 4,520 miles would be in the United States, and thus part of SEA's environmental review. The new system would be "Y-shaped" with its hub in Harvey, Illinois south of Chicago. The Applicants anticipate relatively minor changes in operations as a result of the proposed Acquisition. The Operating Plan and the Applicants' minor modifications to the Operating Plan state that none of the Applicants' proposed increases in rail activity on rail line segments would exceed eight trains per day, which is the Board's threshold for environmental analysis for some of the issue areas (i.e., freight rail operations, highway/rail at-grade crossing safety, air quality attainment and maintenance areas, and noise) that the Board considers in conducting its environmental review. The Applicants have proposed no rail line abandonments and only five minor construction projects. Only two of these construction projects (one rail line connection in Cicero, Illinois and one rail yard bypass in Jackson, Mississippi totaling less than 1 mile) required further environmental review. SEA identified 11 rail line segments,[3] five rail yards, and one intermodal facility that met the Board's thresholds for air quality or noise analysis. All of these facilities are in Illinois and Michigan.

CN currently serves the Canadian ports of Halifax, Montreal, Thunder Bay, Prince Rupert, and Vancouver and the Chicago, Detroit, and Buffalo gateways to and from the United States. The current IC system runs south from Chicago to the Gulf of Mexico and west from Chicago to Nebraska and Minnesota.

OTHER ACTIVITIES SEA ANALYZED

CN and IC have entered into two agreements with The Kansas City Southern Railway Company (KCSR), a Marketing Alliance and an Access Agreement, that would increase the levels of rail activity along rail line segments and at rail yards following the proposed CN/IC Acquisition. The Operating Plan that the Applicants submitted to the Board reflects these increases on the proposed CN/IC system. SEA also reviewed the potential environmental effects of these traffic changes over the proposed CN/IC system and at interchange points with KCSR. SEA concluded that the Alliance and Access Agreements would not result in any significant environmental effects. (See Chapter 3, "Project Description," of the Draft EA.)

In its environmental review, SEA also considered the potential environmental impacts of Responsive Applications filed by Canadian Pacific Railway Company (CP) and Ontario–Michigan Rail Corporation (OMR). (Inconsistent and Responsive Applications are proposals filed with the Board by Parties of Record other than the Applicants requesting

[3] After SEA issued the Draft EA, the Applicants made minor changes to the Operating Plan. Upon modification, only ten rail line segments met the Board's threshold for air quality analysis. For more information on the revised Operating Plan, refer to Appendix A, "Technical Information."

modifications to the Primary Application.) For more information, refer to Chapter 3, "Project Description," of the Draft EA as modified by the errata of November 23, 1998.

THE BOARD'S ENVIRONMENTAL REVIEW PROCESS

The Board is an independent Federal regulatory agency with jurisdiction over certain surface transportation matters, including railroad acquisitions and mergers. When the Board determines, based on economic and competitive merits, that a transaction is consistent with the public interest, the Board is required by statute to approve and authorize the proposed transaction.[4]

As a licensing action, the Board's decision is a Federal action requiring environmental review under the National Environmental Policy Act (NEPA) and regulations of the Council on Environmental Quality (CEQ). SEA is responsible for conducting an environmental review on behalf of the Board, evaluating potential environmental impacts, and recommending environmental mitigation conditions to the Board.

In imposing environmental mitigation conditions, the Board has consistently focused on the potential environmental impacts that would result directly from Acquisition-related changes in activity levels on existing rail lines and at rail facilities. The Board's practice consistently has been to mitigate only those conditions that result directly from a proposed transaction. The Board typically does not require mitigation for pre-existing environmental conditions, such as the effects of current railroad operations.

Draft Environmental Assessment

In performing its environmental analysis for the Draft EA, SEA reviewed the Applicants' Application, Operating Plan, and errata to the Application to identify projected changes in rail traffic on rail line segments, activity at rail yards and intermodal facilities, and construction projects that could cause potential environmental impacts. Before submitting their Application, the Applicants requested that the Board modify its environmental process from previous railroad acquisitions. Instead of submitting an Environmental Report assessing potential environmental impacts with the Operating Plan and Application, as applicants have done in some previous merger cases, the Applicants sought permission to submit a Preliminary Draft Environmental Assessment (PDEA) to SEA after filing their Application. In Decision No. 5, the Board granted the Applicants' request and directed the Applicants to prepare a PDEA under SEA's guidance. Throughout the Applicants' preparation of the PDEA, SEA directed the environmental analysis methodologies for each issue area, reviewed and verified preliminary analysis results, and directed modifications to the PDEA. In cases where SEA did not concur with the Applicants' approach, SEA directed the Applicants to modify the analysis or conducted its own independent analysis. SEA prepared the Draft EA using appropriate information and analyses from the PDEA and independently developed the preliminary recommended environmental mitigation in the Draft EA.

[4] See 49 U.S.C. 11324-25, specifically 49 U.S.C. 11324(c).

Safety Integration Plan

As part of the environmental review process, the Board required the Applicants to prepare and file a detailed Safety Integration Plan in consultation with the Federal Railroad Administration (FRA), the agency within the U.S. Department of Transportation (DOT) with primary responsibility over the enforcement of railroad safety regulations. The Safety Integration Plan outlines how the Applicants would safely integrate the infrastructure, equipment, personnel, and operating practices of their two companies if the proposed CN/IC Acquisition is approved. SEA and the FRA have independently reviewed the Safety Integration Plan, and the Board and FRA have entered into a Memorandum of Understanding (MOU) regarding the ongoing safety integration process for this case. SEA encouraged the public to review and comment on the Safety Integration Plan by including the FRA comments and MOU in the Draft EA. (The Applicants' Safety Integration Plan and FRA's comments on it appeared as Appendix V, "Safety Integration Plan," of the Draft EA. The MOU is presented in Appendix B, "Administrative Information," of the Final EA.) SEA also has reviewed the Safety Integration Plan. SEA's discussion of the Safety Integration Plan appeared in Chapter 7, "Safety Integration Plan," of the Draft EA.

Final Environmental Assessment

In this Final EA, SEA responds to all agency and public comments it received on the Draft EA by January 31, 1999; summarizes its environmental review of the proposed CN/IC Acquisition and the Applicants' minor modifications to their Operating Plan; and recommends final environmental mitigation measures for the Board to impose as conditions if it approves the proposed CN/IC Acquisition.

In preparing this Final EA, SEA carefully reviewed the comments it received. The public and agencies submitted 20 comment letters raising a variety of environmental issues. SEA fully considered all of the comments and conducted additional analyses to address some of the technical comments that posed detailed questions on environmental issues. (See Chapter 2, "Comments and Responses," and Appendix A, "Technical Information," of this Final EA for a description of the additional analysis performed.) As a result of its additional analysis, SEA modified certain mitigation recommendations it presented in the Draft EA. (See Chapter 3, "SEA's Final Recommended Environmental Mitigation," of this Final EA.)

ACTIVITIES SINCE ISSUANCE OF THE DRAFT EA

After issuing the Draft EA, but prior to issuing the Final EA, SEA undertook a variety of activities related to environmental review of the proposed CN/IC Acquisition. These activities included:

- Performing additional analysis of hazardous materials transport, environmental justice, grade crossing safety, traffic delay, and emergency vehicle response to address public and agency comments on the Draft EA.

- Examining the minor modifications to the Applicants' Operating Plan and minor construction projects resulting from the Settlement Agreements to verify that they would not produce adverse environmental impacts.

- Consulting with the U.S. Environmental Protection Agency (EPA) to discuss their comments on the Draft EA and further explain the environmental review process for this case.

- Providing additional public notification and outreach.

- Maintaining the website and the telephone hotline for the proposed CN/IC Acquisition.

SUMMARY OF ENVIRONMENTAL IMPACTS AND SEA'S RECOMMENDED MITIGATION

SEA carefully assessed the extent and significance of potential environmental effects related to the proposed CN/IC Acquisition in the Draft and Final EA. Overall, SEA determined that the proposed CN/IC Acquisition would result in several environmental benefits and no significant adverse environmental impacts if its mitigation recommendations are imposed.

SEA identified only a small number of rail activities that would experience an increase requiring environmental review. These included:

- Ninety rail line segments in Iowa, Illinois, Kentucky, Louisiana, Michigan, Mississippi, and Tennessee.

- Five rail yards in Illinois and Michigan.

- One intermodal facility in Illinois.

- Five rail construction projects in Illinois (Centralia Yard improvement, Champaign Yard improvement, and Cicero rail line connection), Mississippi (Jackson Yard bypass track), and Tennessee (Memphis Yard improvement).

Based on its analysis, SEA has developed a set of recommended mitigation measures to address the potential adverse effects identified during its environmental review. SEA believes the environmental mitigation recommendations are comprehensive, reasonable, and practical and would address potential significant adverse environmental impacts in the areas of hazardous materials transport safety and related impacts on environmental justice populations that are associated with the proposed CN/IC Acquisition.

In conducting its environmental review of the proposed CN/IC Acquisition, SEA evaluated potential effects for the following environmental issue areas:

- Freight Rail Operations Safety.
- Hazardous Materials Transport Safety.
- Passenger Rail Safety.
- Highway/Rail At-grade Crossing Emergency Vehicle Response.
- Highway/Rail At-grade Crossing Safety.
- Highway/Rail At-grade Crossing Delay.
- Traffic and Roadway Systems.
- Passenger Rail Operations Capacity.
- Navigation.

- Energy.
- Air Quality.
- Noise.
- Cultural and Historic Resources.
- Hazardous Waste Sites.
- Land Use.
- Natural Resources.
- Environmental Justice.
- Cumulative Effects.
- Safety Integration.

In its environmental review, SEA determined that the proposed CN/IC Acquisition would result in several positive effects on the environment. These benefits would occur on a system-wide basis, primarily through increased efficiency that the proposed CN/IC Acquisition would facilitate on existing routes. These potential benefits include reductions in fuel consumption, air pollutant emissions, highway traffic, and highway accidents.

Of the 19 issue areas SEA analyzed during its review of the proposed CN/IC Acquisition, SEA identified potential significant adverse impacts in only one issue area—hazardous materials transport—and recommended appropriate mitigation measures to address those impacts. SEA also determined that, without mitigation, these potential significant impacts could disproportionately affect environmental justice populations in five communities in Southern Illinois.

In its evaluation of hazardous materials transport, SEA determined that, without mitigation, increases in transport of hazardous materials could have a significant adverse effect along 14 rail line segments in Illinois, Kentucky, and Michigan. However, SEA's recommended mitigation would address the potential environmental impacts along those routes. DOT regulates hazardous materials transport. SEA's recommended mitigation measures would provide for the early implementation of additional safety measures and require the Applicants to follow certain procedures in handling hazardous materials, inspecting trains and tracks, and coordinating with local emergency responders. SEA believes that if the Board imposes this mitigation, the environmental effects from changes in hazardous materials transport along these routes would not be significant.

In its evaluation of environmental effects on environmental justice populations, SEA identified potential disproportionately high and adverse impacts to minority and low-income populations in the communities of Cairo, Carbondale, Centralia, Mounds, and Du Quoin, Illinois. These impacts would result from the hazardous materials transport impacts that SEA identified in its environmental review. SEA recommends specific mitigation measures tailored to those communities in addition to the mitigation measures described above for hazardous materials transport. SEA believes that this mitigation would address any potential disproportionately high and adverse environmental impacts on these environmental justice populations.

For certain issue areas the Acquisition-related rail activity did not meet or exceed the Board's thresholds for environmental review. Therefore, SEA concluded that the proposed CN/IC Acquisition would not result in significant impacts for these issues:

- Freight Rail Operations Safety: Rail Line Segments.

- Highway/Rail At-grade Crossings: Emergency Vehicle Response, Crossing Safety, and Crossing Delay.

For other issue areas, SEA's analysis showed some adverse effects would result from Acquisition-related traffic increases, however, these impacts would not be significant. These issue areas and their identified impacts are as follows:

- Freight Rail Operations Safety–System-wide and Highway Accidents. Predicted post-Acquisition accident frequencies would be consistent with recent historical accident frequencies, and truck-miles traveled would decrease. Therefore, SEA concludes that no significant adverse impacts would result.

- Passenger Rail Safety. Small increases in the freight traffic on rail line segments where passenger and freight trains share track would result in an only slightly increased accident risk. For common corridors, where passenger and freight trains run on adjacent parallel lines, the proposed Acquisition would result in a small increase in accident risk for only one common corridor. SEA determined that these increases would not result in significant adverse impacts.

- Traffic and Roadway Systems. System-wide, the proposed CN/IC Acquisition would result in truck-to-rail diversion and small reductions in truck traffic on major highway routes. For local roadway impacts, truck traffic entering and leaving the Gateway intermodal facility would be less than 1 percent of the area's average daily traffic; therefore, no adverse impacts would result.

- Passenger Rail Operations Capacity. Acquisition-related freight train traffic would not adversely affect Amtrak or commuter rail service in any of the seven states where passenger service operators and the Applicants share rail lines.

- Navigation. Coast Guard regulations specify that waterborne traffic has the right-of-way over train traffic at movable bridges. Therefore, SEA concludes that the proposed CN/IC Acquisition would have no effect on navigation.

- Energy. Overall fuel consumption would decrease by approximately 4.22 million gallons per year, and commodities shipped would increase slightly. Accordingly, SEA determined that the proposed Acquisition would not adversely affect the transportation of energy resources and recyclable commodities.

- Air Quality. System-wide, estimated emissions for carbon monoxide (CO), nitrogen oxides (NO_x), particulates (PM_{10}), and volatile organic compounds (VOCs) would decrease as a result of the proposed CN/IC Acquisition. SEA determined that the increase in sulfur dioxide (SO_2) emissions would be insignificant, considering the relatively small increase in emissions and the large geographic areas in which these emissions would occur. For its county-wide analysis, SEA determined that rail activities in 60 counties in Illinois and Michigan warranted analysis, but rail activities in only two counties in Illinois (Will and Cook counties) would exceed the EPA screening criteria for one criteria pollutant (NO_x).

Because EPA has granted a NO_x waiver for both Cook and Will counties and the Acquisition-related increases would be insignificant, SEA concludes that no significant impact would result.

- Noise. SEA identified a total of 333 sensitive receptors that would experience adverse noise effects from Acquisition-related increases in train traffic. Of these receptors, only 23 would be affected by wayside noise; 310 would be affected by horn noise. Because the Acquisition-related traffic change would be small, SEA concludes that the actual change in noise for these receptors would be less than SEA's criterion of significance (an increase of 3 A-weighted decibels or more.). Additionally, most impacts result primarily from safety-related horn noise; therefore, these impacts are not considered to be significant.

SEA analyzed five Acquisition-related construction projects. Three projects were routine upgrades that would not result in significant environmental impacts. SEA evaluated the proposed construction projects in Jackson, Mississippi and Cicero, Illinois in more detail. SEA determined that if the Applicants implemented SEA's recommended mitigation for construction projects, including construction Best Management Practices, the construction projects would not cause significant environmental impacts to any of the following:

- Cultural and Historic Resources. SEA and the appropriate State Historic Preservation Offices determined that the proposed construction areas were previously disturbed. Given the past and current activity levels, information valuable to the archeological record would not likely be available.

- Hazardous Materials Spill Sites and Hazardous Waste Sites. SEA determined that proposed construction activity for the Jackson, Mississippi bypass track would avoid property containing hazardous materials. SEA determined that, although the proposed construction at Cicero, Illinois could disturb contaminated soils, the waste could be managed on site.

- Land Use. SEA's analysis showed that the Acquisition-related construction projects would be compatible with surrounding land use and would comply with applicable local zoning ordinances.

- Natural Resources. SEA found existing surface waters and an isolated wetland in the vicinity of the proposed construction in Cicero, Illinois and Jackson, Mississippi. SEA determined that the proposed construction would require Federal, state, and local permits and that the Best Management Practices that permitting agencies normally include would adequately protect these resources. SEA found no records of rare, threatened, or endangered species in the vicinity of either site.

SEA also reviewed the Applicants' Safety Integration Plan. Based on its review, SEA recommends that the Board impose a condition requiring the Applicants to comply with the Safety Integration Plan, which may be modified to respond to evolving system conditions because safety integration is an ongoing process. SEA also recommends that the Board impose a condition requiring the Applicants to participate and fully cooperate with the ongoing regulatory activities associated with the Memorandum of Understanding agreed to by the Board and FRA until FRA affirms to the Board in writing that the integration of the Applicants' systems has been completed safely and satisfactorily.

SEA'S CONCLUSIONS

Based on its independent analysis of all of the available information, SEA concludes that the proposed Acquisition of IC by CN would not significantly affect the quality of the human environment if the recommended mitigation measures set forth in this Final EA are imposed and implemented. Accordingly, SEA recommends that the Board impose the mitigation measures listed in Chapter 3, "SEA's Final Recommended Environmental Mitigation," as conditions in its final decision if the Board approves the proposed CN/IC Acquisition.

CHAPTER 1
PROJECT SUMMARY

The Surface Transportation Board, Section of Environmental Analysis, prepared this Final Environmental Assessment (Final EA) to complete its review of the potential environmental impacts of the Canadian National proposal to acquire Illinois Central. On November 9, 1998, the Board served the Draft Environmental Assessment (Draft EA) on the Parties of Record and SEA issued the Draft EA to the public. On November 23, 1998, the Board served an errata clarifying certain information in the Draft EA. SEA encouraged the public to participate in the environmental review of the proposed CN/IC Acquisition by commenting on the Draft EA and the Applicants' Safety Integration Plan.[5] This Final EA presents the 20 agency and public comments that SEA received on the Draft EA and errata by January 31, 1999 as well as SEA's response to those comments. The Final EA also summarizes SEA's environmental review; presents additional environmental analysis that SEA performed in response to public comments in the areas of increased rail traffic, hazardous materials transport, environmental justice, emergency vehicle response, air quality, and noise; evaluates minor modifications to the Applicants' Operating Plan; and recommends final environmental mitigation measures for the Board to impose if it decides to approve the proposed Acquisition.

Chapter 1 presents an overview of the proposed CN/IC Acquisition, the Board's evaluation of the railroads' Application, and any modifications. This chapter summarizes:

- Purpose of the proposed CN/IC Acquisition.
- Description of the proposed action.
- Roles of the Board, the Applicants, and other agencies in evaluating the proposed action.
- The Board's review of potential environmental effects.
- SEA's environmental review process.
- SEA's public comment process.
- Activities performed since the Draft EA was issued.
- Comments SEA received.
- Additional environmental analysis SEA performed to address those comments.

---

5 The "Surface Transportation Board" is hereinafter referred to as "the Board"; "Section of Environmental Analysis" is hereinafter referred to as "SEA"; the "Draft Environmental Assessment" is hereinafter referred to as the "Draft EA"; and the "Final Environmental Assessment" is hereinafter referred to as the "Final EA." "CN" stands for "Canadian National Railway Company and its subsidiaries"; "IC" stands for "Illinois Central Corporation and its subsidiaries;" and the "Applicants" hereinafter refers to CN and IC.

1.1 INTRODUCTION

On July 15, 1998, the Applicants filed an Application and Operating Plan with the Board requesting authorization for CN to acquire control of IC. The National Environmental Policy Act (NEPA) and the Board's environmental rules in the Code of Federal Regulations (CFR) at 49 CFR Part 1105 require the Board to conduct an environmental review of the proposed CN/IC Acquisition before it can issue a final decision. As part of the environmental review process, SEA determined that the preparation of an environmental assessment was appropriate for this proceeding. This approach was consistent with the Board's rules at 49 CFR 1105.6(b)(4), which call for an EA in a merger or acquisition such as this one. On August 14, 1998, the Board served Decision No. 6 on the Parties of Record in this proceeding. The decision set a procedural schedule and announced the Board's intention to prepare an EA to meet its obligations under environmental laws. (Appendix B, "Administrative Information," contains a copy of Board Decision No. 6.)

1.2 PURPOSE OF AND NEED FOR THE PROPOSED CN/IC ACQUISITION

The Applicants stated that numerous benefits would result from combining the CN and IC systems. Overall, they maintain that the proposed CN/IC Acquisition would create new and improved rail service, particularly between eastern Canada and the southern United States. According to the Applicants, the proposed CN/IC Acquisition responds directly to shippers' needs for improved rail infrastructure to handle the rapidly growing north-south trade flows stimulated by the North American Free Trade Agreement.

The Applicants also stated that a number of benefits relate directly to the extended single-line service (i.e., service over one railroad, without rail car interchanges between railroads) proposed in their Operating Plan. These benefits include the following:

- Increased routing options for freight traffic.
- Improved coordination of freight movements.
- Minimized car handling and improved train scheduling through improved blocking patterns.
- Faster and more reliable deliveries.
- Better utilization of car and locomotive equipment to reduce operating costs, maintenance, and delays.
- Safer service through improved blocking and train scheduling and by combining the best safety practices of each railroad.
- Intensified competition.
- Enhanced efficiency of rail operations.
- Increased marketing opportunities for shippers.

1.3 ROLE OF THE SURFACE TRANSPORTATION BOARD, THE APPLICANTS, AND OTHER AGENCIES

This section describes the Board's role in regulating railroad matters and its interaction with the Applicants and other agencies.

1.3.1 The Surface Transportation Board

The Board is a nonpartisan, independent Federal regulatory agency within the United States Department of Transportation. The Board has jurisdiction over certain surface transportation matters and considers the economic, competitive, and environmental effects of a transaction in its review of proposed mergers and acquisitions.[6] In all of its decisions, the Board is committed to advancing the national transportation policy goals established by Congress.[7]

The Board can approve a transaction as proposed; approve the transaction with conditions, including environmental conditions to offset or reduce the potential environmental impacts of the proposed action; or not approve the transaction. When the Board determines, based on economic and competitive merits, that a transaction is consistent with the public interest, the Board is required by statute to approve the transaction. The Board's intention in making a decision to approve a railroad merger or acquisition is to allow railroads to expand their systems by acquiring other railroad facilities and thereby operate more efficiently and compete more effectively with trucks and other railroads.

The Draft EA presented the merit issues (i.e., economic or competitive) the Board considers in its review, including the effects on transportation, other rail carriers, railroad employees, and others. SEA is responsible for conducting the environmental review of proposed transactions on behalf of the Board. Based on its environmental review, SEA may recommend environmental mitigation conditions to the Board. To assist with the environmental review, SEA often uses independent, third-party contractors. These independent contractors work under SEA's supervision and direction to conduct environmental analysis and assist with the preparation of environmental documents.

The Board has established a process for receiving pleadings and alternative proposals pertaining to the economic and competitive impacts of a proposed transaction. This process is separate from the environmental review process, which provides specific opportunities for the public to learn about and comment on the potential environmental effects of a proposed transaction. The Applicants are to conduct all of these activities within a schedule the Board develops for each case. Table 1-1, "Board's Procedural and SEA's Environmental Review Schedule," shows the procedural schedule for the proposed CN/IC transaction.

As shown in the environmental review schedule, SEA has involved the public throughout the environmental review of the proposed CN/IC Acquisition. Throughout preparation of the Draft EA and the Final EA, SEA consulted with other government agencies and considered their input in

---

6 See 49 U.S.C. 10101 *et seq.*

7 See 49 U.S.C. 10101.

developing its final recommended environmental mitigation measures.

TABLE 1-1
BOARD'S PROCEDURAL AND SEA'S ENVIRONMENTAL REVIEW SCHEDULE

Day	Action	Date
	Applicants filed Notice of Intent to file Application.	February 12, 1998
Day 0	Applicants filed Application and Operating Plan.	July 15, 1998
	The Board served Decision No. 6 with the Final Procedural Schedule. The decision announced the Board's intention to prepare an EA and required the Applicants to prepare a Safety Integration Plan.	August 14, 1998
Day 30	The Board published a Notice of Acceptance of Primary Application and Related Application in the *Federal Register*.	August 14, 1998
Day 30	Applicants filed Safety Integration Plan.	August 14, 1998
Day 47	Other parties filed summary descriptions of Inconsistent and Responsive Applications.	August 31, 1998
	The Board published a Notice of Environmental Review Schedule in the *Federal Register*.	September 14, 1998
	Applicants filed Errata to Application and Operating Plan.	September 16, 1998
	Applicants filed revised Safety Integration Plan.	September 18, 1998
Day 68	Other parties filed Responsive Environmental Reports and Verified Statements for any Inconsistent and Responsive Applications.	September 21, 1998
	Board served Decision No. 11 with revised Procedural Schedule.	October 2, 1998
Day 104	Other parties filed Inconsistent and Responsive Applications and Requests for Conditions.	October 27, 1998
	The Board served the Draft EA on Parties of Record; SEA issued the Draft EA to the public.	November 9, 1998
	The Board placed a notice in the *Federal Register* announcing the availability of the Draft EA and initiating a 30-day comment period on the Draft EA.	November 9, 1998
Day 125	The Board published a Notice of Acceptance of Inconsistent and Responsive Applications in the *Federal Register*.	November 17, 1998
	The Board served Decision No. 23 to present the errata to the Draft EA.	November 23, 1998
	Closing date for public comments on Draft EA.	December 11, 1998
Day 154	The parties filed responses to the Inconsistent and Responsive Applications, Requests for Conditions, and rebuttals in support of Primary Application.	December 16, 1998
Day 184	Other parties submitted rebuttals in support of Inconsistent and Responsive Applications.	January 15, 1999
	The Board served Decision No. 30, changing the dates for oral argument and the voting conference.	January 28, 1999
	Parties filed briefs regarding the merits of the proposed Application.	February 19, 1999

TABLE 1-1
BOARD'S PROCEDURAL AND SEA'S ENVIRONMENTAL REVIEW SCHEDULE

Day	Action	Date
	The Board served the Final EA on Parties of Record; SEA issued the Final EA to the public.	March 8, 1999
	The Board published a notice in the *Federal Register* announcing the availability of the Final EA.	March 8, 1999
Day 246	The Board is scheduled to conduct oral argument.	March 18, 1999
Day 253	The Board is scheduled to conduct voting conference.	March 25, 1999
Day 314	The Board is scheduled to serve final written decision.	May 25, 1999
Day 334	Deadline for filing administrative appeals.	June 14, 1999

1.3.2 The Applicants

CN and IC are joint Applicants in the proposed CN/IC Acquisition. As part of the environmental review process, the Board required the Applicants to provide information on existing and proposed railroad operations and anticipated environmental effects. The Applicants provided this information to the Board in their Application, Operating Plan, an errata to their Application, a Preliminary Draft Environmental Assessment (PDEA), and other supplemental information. The PDEA presented the Applicants' preliminary environmental analysis for activities associated with the proposed CN/IC Acquisition. SEA verified all the information in the PDEA, prepared the Draft EA using appropriate information from the PDEA, and reviewed all documents submitted by the Applicants to identify projected changes in rail activities that could cause potential environmental effects. If the Board approves the proposed CN/IC Acquisition with conditions, including environmental conditions, the Applicants would be responsible for implementing any conditions the Board may impose.

1.3.3 Other Federal Agencies

SEA considered pertinent Federal statutes, regulations, and executive orders; and it coordinated and consulted with appropriate Federal agencies to ensure that they were notified of the proposed CN/IC Acquisition and knew about the time frames for agency review and comment on the Draft EA. The Board exercises its authority with due regard for the jurisdiction and expertise of other Federal agencies.

SEA consulted several Federal agencies during the environmental review process, and SEA provided each Federal agency with the Draft EA for their review and comment. SEA carefully considered all comments received from these agencies in preparing the Final EA and making final mitigation recommendations to the Board. The following list presents the Federal agencies that SEA consulted:

- Advisory Council on Historic Preservation.
- Bureau of Indian Affairs.
- Council on Environmental Quality.
- Federal Emergency Management Agency.
- Federal Railroad Administration.

- Natural Resources Conservation Service.
- U.S. Army Corps of Engineers.
- U.S. Coast Guard.
- U.S. Department of the Interior, Office of Environmental Policy and Compliance.
- U.S. Department of the Interior, Fish and Wildlife Service.
- U.S. Department of Transportation.
- U.S. Environmental Protection Agency.

SEA also consulted with various state and local agencies concerning the Draft EA. SEA's coordination with various state and local agencies is presented in Section 1.9, "Public Involvement Approach and Process," of this Final EA. Chapter 2, "Comments and Responses," of the Final EA contains information regarding agency consultation.

1.4 THE BOARD'S REVIEW OF POTENTIAL ENVIRONMENTAL EFFECTS

SEA is responsible for conducting the environmental review on behalf of the Board. The Board's environmental regulations govern SEA's environmental review process and outline SEA's procedures for preparing environmental documents. In conducting its environmental review, the Board considers NEPA requirements and the implementing regulations of the Council on Environmental Quality (CEQ)[8]; other related environmental laws and their implementing regulations; and the Board's environmental regulations at 49 CFR 1105.

In performing its environmental analysis, SEA reviewed the Applicants' Application, Operating Plan, and errata to the Application to identify projected changes in traffic on rail line segments and changes in activity at rail yards and intermodal facilities that could cause potential environmental impacts. The Applicants requested that the Board modify its review process somewhat from previous railroad mergers. Instead of submitting an Environmental Report assessing potential environmental impacts along with their Application, as applicants had done in previous merger cases, the Applicants sought permission to submit a PDEA to SEA after filing their Application. Following the Applicants' submission of their Application and Operating Plan, the Board served Decision No. 5, which granted the Applicants' request to prepare a PDEA under SEA's guidance. The Applicants prepared a PDEA that included a description of the proposed action and an evaluation of the potential environmental impacts. Throughout the Applicants' preparation of the PDEA, SEA directed the environmental analysis methodologies for each issue area, reviewed and verified the preliminary analysis results, and directed modifications to the PDEA. In cases where SEA did not concur with the Applicants' approach, it directed the Applicants to modify the analysis or conducted its own independent analysis. SEA provided appropriate oversight and direction to the Applicants and their environmental contractors regarding data collection, methods for analyzing environmental effects, and verification of analysis results. SEA's participation, oversight, and guidance have been extensive throughout the EA process.

Following its review and verification of all the information in the PDEA, SEA used appropriate information and analysis from the PDEA to prepare the Draft EA. When appropriate, SEA conducted its own independent analysis and independently developed preliminary recommended

[8] 40 CFR 1500-1508.

environmental mitigation measures for inclusion in the Draft EA and final mitigation measures for this Final EA.

The Applicants refined their Operating Plan prior to preparation of the Final EA and provided SEA with an updated Operating Plan. SEA reviewed and verified the updated Operating Plan and determined that the modifications were minor and would not affect SEA's conclusions regarding the environmental impacts of the proposed Acquisition. Appendix A, "Technical Information," contains a detailed description of SEA's verification process.

The Board also required the Applicants to develop a Safety Integration Plan according to Federal Railroad Administration (FRA) guidelines. The Safety Integration Plan describes how they would safely merge the existing CN and IC systems if the proposed Acquisition is approved. They submitted the Safety Integration Plan to the Board as required by Board Decision No. 6. FRA reviewed the Applicants' Safety Integration Plan and provided comments to the Board. The Board and FRA have entered into a Memorandum of Understanding (MOU) to coordinate their ongoing oversight of the Applicants' safety integration activities. To provide the public with an opportunity to comment on the Safety Integration Plan, SEA included a copy of the entire Safety Integration Plan, FRA's initial comments on the plan, and the MOU in the Draft EA. Through the U.S. Department of Transportation (DOT), FRA provided additional comments on the Safety Integration Plan and the Draft EA. SEA also independently reviewed the Safety Integration Plan and the public comments it received on the Plan. SEA's final recommended mitigation would require the Applicants to cooperate in the ongoing review of safety integration.

SEA's environmental review of the proposed CN/IC Acquisition has been a multi-step process. SEA issued the Draft EA to the public, invited the public and other agencies to review and comment on the Draft EA during a 32-day comment period, and considered all comments received on the Draft EA. After considering all public comments on the Draft EA (including the preliminary recommended mitigation), consulting with appropriate agencies, and conducting additional environmental analysis where appropriate, SEA prepared this Final EA to respond to issues that the public raised and to describe its final environmental analysis and recommended environmental mitigation.

Involving the public is an important part of the Board's environmental review process. To encourage public involvement in the environmental review process, SEA distributed an Environmental Fact Sheet to notify the public that the Draft EA was forthcoming and to provide instructions on how to submit comments on the Draft EA or any other environmental concerns. Section 1.9, "Public Involvement Approach and Process," contains a detailed discussion of SEA's agency consultation, public notification activities, and the public comment period. The Board will consider the entire environmental record; the Draft EA and errata; all public comments; and the Final EA, including SEA's final recommended environmental mitigation, in making its final decision for this case.

1.4.1 SEA's Environmental Review

As the Draft EA described, SEA evaluated the potential environmental effects of the proposed CN/IC Acquisition on behalf of the Board for the following issue areas:

- Safety, including freight rail operations, passenger rail operations, and hazardous materials transport.
- Highway/Rail At-grade Crossings, including safety, delay, and emergency vehicle response delay.
- Transportation Systems, including highways and local roadways.
- Passenger Rail Operations Capacity.
- Navigation.
- Energy.
- Air Quality.
- Noise.
- Cultural and Historic Resources.
- Hazardous Waste Sites.
- Land use.
- Natural Resources.
- Environmental Justice.
- Cumulative Effects.

SEA also reviewed and evaluated the Applicants' Safety Integration Plan, which describes how the Applicants would safely integrate the infrastructure, equipment, personnel, and operating practices of the railroad companies if the Board approves the proposed CN/IC Acquisition.

1.4.2 The Board's Thresholds for Environmental Analysis

The Applicants' Operating Plan and errata to the Application indicate that the proposed CN/IC Acquisition would modify existing CN and IC activities. To conduct its environmental review, SEA evaluated changes in the following categories of railroad activities that would result from the proposed CN/IC Acquisition:

- Increases and decreases in rail traffic on all rail line segments.
- Increases and decreases in activity at all intermodal facilities.
- Increases and decreases in activity at all rail yards.
- Construction of new rail facilities, including rail line connections.

In conducting its environmental analysis, SEA first applied the Board's thresholds for environmental analysis at 49 CFR Part 1105. The Board thresholds apply specifically to air quality, noise, and energy resources. For issue areas where the Board does not have specific thresholds for environmental analysis, SEA assessed whether it would be appropriate to apply thresholds developed for environmental review of the recent Conrail Acquisition proceeding. SEA concluded that the analysis thresholds developed for the Conrail Acquisition were also appropriate for environmental analysis of the proposed CN/IC Acquisition.[9] For example, to analyze the potential effects on passenger rail safety, SEA used a proposed increase of one freight train per day. To analyze the potential effects of hazardous materials transport, SEA considered all rail line segments with a proposed increase in the annual volume of hazardous materials transported. Table 1-2, "Board's Thresholds for Environmental Analysis," lists the thresholds SEA used to prepare the Draft EA and Final EA.

[9] See Final Environmental Impact Statement, pp. 2-1 through 2-6 (May 1998), *CSX Corporation and CSX Transportation, Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company—Control and Operating Leases/Agreements—Conrail Inc. and Consolidated Rail Corporation,* STB Finance Docket No. 33388.

Insert Table 1-2, page 1 of 3

Insert Table 1-2, Page 2 of 3

Insert Table 1-2, Page 3 of 3

1.5 OVERVIEW OF EXISTING AND PROPOSED SYSTEMS

As described in their Application, CN and IC propose to combine their rail systems to form a single system. Because the systems currently connect "end to end," the principal combined route would remain identical to those of the individual railroads. Currently, CN's rail network extends through both Canada and parts of the United States. Within the United States, CN's rail system operates in eight states (Michigan, Indiana, Illinois, Minnesota, New York, Vermont, Ohio, and Wisconsin), and IC's rail system operates in nine states (Alabama, Illinois, Iowa, Kentucky, Louisiana, Minnesota, Mississippi, Nebraska, and Tennessee.)[10] Because the Board has jurisdiction over certain rail transportation matters only within the United States, SEA evaluated only the potential effects of the proposed CN/IC Acquisition within the United States.

1.5.1 Existing Canadian National System

CN operates approximately 1,150 route miles in the United States and 14,150 route miles in Canada. CN serves every major metropolitan area of Canada. In the United States, CN serves the gateway cities of Buffalo, New York; Detroit, Michigan; Duluth, Minnesota; Superior, Wisconsin; and Chicago, Illinois. CN has three principal service corridors: the Eastern, Western, and Transcontinental. The Eastern Service Corridor runs from Halifax, Nova Scotia on the Atlantic Coast through Montreal, Quebec, and Toronto, Ontario to Chicago via the St. Clair Tunnel in Michigan. The Western Service Corridor extends from Vancouver and Prince Rupert, British Columbia on the Pacific Coast to Chicago and Thunder Bay, Ontario. The Transcontinental Corridor extends from Halifax to Prince Rupert and Vancouver.

1.5.2 Existing Illinois Central System

The current IC rail network consists of approximately 3,370 route miles of track in nine states running north-south between Chicago, Illinois and the Gulf of Mexico and east-west from Chicago toward Nebraska and Minnesota. IC's main north-south route reaches south from Chicago to the major metropolitan areas on the Mississippi River including St. Louis, Missouri; Memphis, Tennessee; Jackson, Mississippi; and New Orleans, Louisiana. IC's east-west route extends from Chicago, Illinois in the east to Sioux City, Iowa and Omaha, Nebraska in the west. IC also has access to the port in Mobile, Alabama on the Gulf of Mexico, as well as barge access to Florida.

1.5.3 Passenger Rail Systems

Both CN and IC are freight railroads, but they share track with passenger rail services in some areas. The proposed action could affect two types of passenger rail services: Amtrak intercity rail operations and regional transportation commuter rail operations. Statutory and contractual

[10] The errata of November 23, 1998 incorrectly stated that IC operates in ten states. Although the Draft EA and the Final EA correctly state that IC serves major metropolitan areas along the Mississippi including St. Louis, Missouri, IC does not operate in Missouri.

agreements, which would remain intact whether or not the Board approves the proposed CN/IC Acquisition, govern the relationships between passenger rail services and the Applicants.

Amtrak operates on approximately 1,160 miles of CN or IC rail lines in eight states—Illinois, Indiana, Kentucky, Louisiana, Michigan, Mississippi, New York, and Tennessee. These operations include intercity service between the following: (1) Chicago, Illinois and Toronto, Ontario; (2) Chicago, Illinois and Detroit, Michigan; (3) Chicago, Illinois and New Orleans, Louisiana; (4) Chicago, Illinois and Indianapolis, Indiana; (5) Chicago, Illinois and Joliet, Illinois; and (6) New York, New York and Montreal, Quebec. Amtrak trains that provide service between Los Angeles, California and Jacksonville, Florida also use a small portion of IC rail line in New Orleans, Louisiana. Although Amtrak filed a Comment and Request for Conditions, its February 5, 1998 letter to the Board states that Amtrak reached a Settlement Agreement with the Applicants regarding passenger issues and that it supports the proposed CN/IC Acquisition.

In the Chicago, Illinois metropolitan area, the Northern Illinois Railroad Corporation (Metra) provides commuter service between Chicago and Joliet, Illinois using approximately 35 miles of IC-owned rail line. This is the only commuter rail service that uses any CN or IC rail line in the United States. Except for some minor switching operations in the Chicago area, CN and IC do not operate any freight trains on rail lines owned by other railroads where commuter rail service occurs.

1.5.4 Overview of Proposed System

The proposed CN/IC Acquisition would result in an end-to-end coupling of the existing CN and IC systems. The resulting CN/IC system would cover approximately 18,670 miles, of which approximately 4,520 miles would be in the United States. The new system would be “Y-shaped” with its hub in Harvey, Illinois south of Chicago. The proposed system would extend to the Atlantic and Pacific coasts of Canada at Halifax and at Prince Rupert and Vancouver, respectively, and to the Gulf of Mexico at New Orleans, Louisiana. (See Figure 1-1, “Proposed CN/IC Rail System in the United States.”)

As previously stated, the Applicants contend that the proposed CN/IC Acquisition would increase and improve service because it would provide single-line, coast-to-coast service; coordinate operations; divert traffic from trucks and other railroads; and provide better operating efficiency.

Insert Figure 1-1, Proposed CN/IC Rail System in the United States," here!

1.6 THE PROPOSED ACTION

This section describes the Applicants' proposed rail activities that meet the Board's thresholds for environmental review (see Table 1-2, "Board's Thresholds for Environmental Analysis"). SEA identified the following activities for environmental review:

- Ninety rail line segments in Iowa, Illinois, Kentucky, Louisiana, Michigan, Mississippi, and Tennessee.
- Five rail yards in Illinois and Michigan.
- One intermodal facility in Illinois.
- Five rail construction projects in Illinois (Centralia Yard improvement, Champaign Yard improvement, and Cicero new rail line connection), Mississippi (Jackson Yard bypass track), and Tennessee (Memphis Yard improvement).

Sections 1.6.1 through 1.6.6 describe these activities in greater detail. Appendix A, "Technical Information," lists the rail line segments, rail yards, and intermodal facilities included in the Application; and it indicates whether changes in activity at these facilities meet or exceed the Board's thresholds for environmental review.

1.6.1 Rail Line Segments

Rail line segments are the portions of rail lines that run between two terminals or junction points. For the Draft EA, SEA analyzed a total of 90 rail line segments where the Applicants' projected increase in rail activity would meet or exceed the Board's thresholds for environmental analysis.[11] These rail line segments include:

- A total of 11 individual rail line segments (approximately 156 miles of rail lines) in Illinois that meet or exceed the Board's thresholds for environmental analysis for air quality or noise.[12]
- A total of 86 rail line segments (approximately 1,839 miles of rail lines) in Iowa, Illinois, Kentucky, Louisiana, Michigan, Mississippi, and Tennessee where the proposed CN/IC Acquisition would result in increased hazardous materials transport.
- A total of 24 rail line segments (approximately 713 miles of rail lines) in Illinois, Indiana, Kentucky, Louisiana, Michigan, Mississippi, and Tennessee where projected activity would meet or exceed the Board's thresholds for analysis of passenger rail traffic for this case.

---

[11] The following list exceeds 90 because activities overlap on some rail line segments. Other rail line segments are noted twice when they cross state boundaries.

[12] After SEA issued the Draft EA, the Applicants made minor changes to the Operating Plan. Upon modification, only ten rail line segments met the Board's threshold for air quality analysis. For more information on the revised Operating Plan, refer to Appendix A, "Technical Information."

1.6.2 Rail Yards

Most rail yard activities involve switching and storing individual cars and blocks of cars. Other activities include locomotive maintenance and fueling and freight car inspection, cleaning, and repair. The Applicants expect that the proposed CN/IC Acquisition would cause only minor increases and decreases in train traffic at 48 of the 53 rail yards in the proposed system. Only five rail yards—Hawthorne Rail Yard (Cicero, Illinois), Markham Rail Yard (Homewood, Illinois), Detroit Rail Yard (Detroit, Michigan), Edison Rail Yard (Trenton, Michigan), and Port Huron Rail Yard (Port Huron, Michigan)—met or exceeded the Board's thresholds for environmental analysis. All five exceeded only the Board's threshold for air quality.

1.6.3 Intermodal Facilities

Intermodal facilities are sites where trains, trucks, and/or ships transfer truck trailers and/or containers. Intermodal facilities include railroad tracks, lifting equipment, paved and/or unpaved areas, and a control point to transfer (receive, load, unload, and dispatch) trailers and containers between rail and other modes of transportation. The proposed increase in rail activity at the Moyers Intermodal Terminal in Harvey, Illinois would exceed the Board's thresholds for air quality and noise.

1.6.4 Construction Projects

According to the Applicants' Operating Plan, they would construct one new 1,000-foot rail line connection, construct one 2,140-foot segment for a proposed bypass, make improvements at several rail yards, and enhance a number of existing automotive and intermodal facilities if the proposed CN/IC Acquisition is approved. SEA included the proposed construction projects in its environmental review because these projects would not occur except for the proposed CN/IC Acquisition. SEA completed a preliminary qualitative assessment of the proposed projects to determine their potential to individually or cumulatively affect the environment beyond the existing railroad rights-of-way and to determine whether the projects warranted detailed environmental review.

SEA determined that all but two of the proposed projects—the construction of a rail line connection in Cicero, Illinois and the construction of a bypass track around Jackson Yard in Jackson, Mississippi—were routine actions that would cause only minimal or temporary environmental effects. SEA determined that if the Applicants implemented SEA's recommended Best Management Practices during these routine actions, the practices would address any potential adverse environmental effects beyond the existing rights-of-way. Therefore, SEA concluded that only the projects in Cicero, Illinois and Jackson, Mississippi required further environmental review.

The Applicants state that they would construct a new connection at Cicero, Illinois to handle rail traffic at the southwest quadrant of the intersection of IC and Belt Railway of Chicago (BRC) more efficiently. The new connection would permit additional access between the IC and BRC rail lines and would require approximately 1,000 feet of new track. (See Chapter 5, "Environmental Consequences—Construction Projects," of the Draft EA for a more detailed description of this proposed construction project.)

The Applicants propose a second rail construction project at IC's rail yard at Jackson, Mississippi. They propose to develop a 2.38-mile bypass track adjacent to the rail yard to allow through trains to bypass the yard. The project would require approximately 2,140 feet of new track, most of which would be within the existing right-of-way, to connect two sections of existing track on the west side of the rail yard, which the Applicants would rehabilitate. (See Chapter 5, "Environmental Consequences—Construction Projects," of the Draft EA for a more detailed description of this proposed construction project.)

SEA reviewed the potential environmental effects associated with both of the Applicants' proposed construction projects and concluded that no potential exists for significant environmental effects as long as the Applicants implement construction Best Management Practices and obtain all necessary construction permits. Therefore, SEA recommends that the Board require the Applicants to use the construction Best Management Practices described in Chapter 3, "SEA's Final Recommended Environmental Mitigation," of this Final EA.

1.6.5 Abandonments

The Applicants have not proposed any abandonments of rail line segments in association with the proposed CN/IC Acquisition.

1.6.6 Settlement Agreements

Settlement Agreements are agreements negotiated between one or both of the Applicants and one or more parties, including other railroads, to address concerns or requests of the other party (or parties). The Applicants reached Settlement Agreements with Amtrak and three other railroads—CSX, Burlington Northern Santa Fe Railway Company (BNSF), and Norfolk Southern Railway Company (NS). The Applicants submitted a Verified Statement regarding the potential environmental impacts of the Settlement Agreements to provide SEA with appropriate environmental information. (See Appendix B, "Administrative Information," for this Verified Statement.) Based on its review of the Verified Statement, SEA concluded that none of the proposed changes in rail activities associated with these Settlement Agreements would exceed Board thresholds, and the proposed construction activities were routine actions that would not cause environmental impacts beyond existing rights-of-way.

1.7 RELATED ACTIONS

In its environmental review, SEA considered actions related to the proposed CN/IC Acquisition. The following sections describe the related actions SEA considered. Chapter 3, "Project Description," of the Draft EA discusses these actions in greater detail.

1.7.1 Alliance and Access Agreements with the Kansas City Southern Railway Company

CN and IC have entered into two agreements with the Kansas City Southern Railway Company (KCSR). SEA considered the environmental effects of these agreements because both agreements would increase the levels of rail activity along rail line segments and at rail yards following the proposed Acquisition. The Applicants' Operating Plan reflects these increases on the proposed CN/IC system, and SEA reviewed the potential environmental effects of these traffic changes in the Draft EA. SEA's conclusions regarding the potential environmental effects are discussed in the Executive Summary of this Final EA. SEA also reviewed the potential cumulative effects associated with these changes on the KCSR system. SEA concluded that the Alliance and Access Agreements would not result in any significant cumulative effects. (See Chapter 3, "Project Description," of the Draft EA for more information about these agreements.)

The first agreement, a Marketing Alliance (Alliance), is independent of the proposed CN/IC Acquisition and will continue for at least 15 years, regardless of the Board's decision on the proposed CN/IC Acquisition. CN, IC, and KCSR formally entered into this Alliance on April 15, 1998 to improve interline service among these three railroads and link freight rail services for existing and potential customers through market development and expansion. The Alliance targets shippers who move freight north and south between Canada and Mexico and through U.S. markets. It provides for coordination among the three railroads regarding sales and marketing, operations, fleets, and information systems and proposes to offer shippers competitive access. Although the Alliance is not dependent on the proposed CN/IC Acquisition, the Applicants indicated that the Alliance would not be as beneficial to shippers or the railroads without the service improvements and efficiencies fostered by the proposed CN/IC Acquisition.

In addition to the Alliance, CN and KCSR entered into an Access Agreement on April 15, 1998. This Agreement, which would become effective upon Board approval of the proposed CN/IC Acquisition, would grant certain haulage and trackage rights between CN/IC and KCSR; and it would provide for potential investment in joint facilities and long-term access to those facilities following development by a management group composed of representatives of the three railroads. Specifically, CN would grant KCSR access and haulage rights between three chemical plants at Geismar, Louisiana (now served by IC) and Baton Rouge, Louisiana as well as from Baton Rouge to Jackson. The Applicants' Operating Plan includes traffic changes on CN and IC lines and facilities that would result from the Access Agreement. SEA's environmental analysis included an assessment of the potential environmental impacts of the Access Agreement. The Applicants also applied to the Board for terminal trackage rights for a small segment of NS and Union Pacific Railroad Company (UP) track in Springfield, Illinois between the Applicants' rail system and KCSR. SEA concluded that if the Board were to grant this request, the resulting traffic would not cause any significant environmental effects.

1.7.2 Haulage Agreement with Wisconsin Central Limited

CN does not own rail lines between Duluth, Minnesota/Superior, Wisconsin and Chicago, Illinois. Since September 1997, Wisconsin Central Limited (WC) has carried CN's intermodal traffic between Duluth/Superior and Chicago in accordance with a haulage rights agreement between CN and WC. Until August 31, 1998, BNSF carried CN's carload and bulk traffic between those points in accordance with a haulage agreement that CN had with that railroad. However, as of September 1, 1998, WC now hauls, under the terms of a new haulage agreement between CN and WC, all CN traffic formerly handled by BNSF between Duluth/Superior and Chicago. That agreement, unrelated to the CN/IC Acquisition, will remain in effect for 20 years. However, SEA considered the potential cumulative effects of this Agreement. (See Chapter 3, "Project Description," of the Draft EA for more information on cumulative effects.)

1.7.3 Rail Connection at Harvey, Illinois

Before submitting their Application, CN and IC planned to upgrade an existing connection between their lines at Harvey, Illinois to improve the flow of traffic between the CN and IC lines at that location. SEA reviewed the Applicants' plans and verified that the construction project at Harvey had been previously planned, so it is not Acquisition related. However, this planned connection would be adjacent to a rail line segment that exceeded the Board's threshold for air quality analysis. As a result, SEA analyzed the proposed connection for potential cumulative air quality effects and determined that no significant temporary or long-term cumulative effects would follow construction or operation of the planned connection. (See Chapter 6, "Environmental Consequences—Cumulative Effects," of the Draft EA for more information on this project.)

1.8 ALTERNATIVES TO THE PROPOSED ACTION

When evaluating applications for mergers or acquisitions, the Board generally considers the Proposed Action, the No-action Alternative, and Inconsistent and Responsive Applications filed by other parties to request modifications or conditions to the proposed action. SEA considered these alternatives during its environmental review of the proposed CN/IC Acquisition.

1.8.1 No-action Alternative

Under the No-action Alternative, the Board would not approve the CN/IC Acquisition, and the Applicants' proposed changes in rail operations would not occur. Under this alternative, no changes in operations of rail line segments, rail yards, or intermodal facilities would occur as proposed by the Applicants. Similarly, no new construction would occur. Existing traffic levels along rail line segments and at rail yards and intermodal facilities would continue unchanged, except for changes resulting from normal railroad business and market conditions. Therefore, none of the anticipated benefits or environmental effects of the proposed action would occur.

1.8.2 Inconsistent and Responsive Applications

Inconsistent and Responsive (IR) Applications are proposals that Parties of Record (other than the Applicants) file with the Board to request modifications or conditions to the Primary Application. In its Decision No. 6, served on August 14, 1998, the Board required parties who planned to file IR Applications to file summary descriptions of their requests by August 31, 1998. In its Decision No. 11, served on October 2, 1998, the Board announced a revised procedural schedule that required IR Applicants to file complete IR Applications by October 27, 1998. The Board received Responsive Applications from the Canadian Pacific Railway Company (CP) and the Ontario-Michigan Rail Corporation (OMR) regarding the proposed CN/IC Acquisition. Each Responsive Applicant requested that the Board require CN to divest its 50 percent share of the Detroit River Tunnel. OMR indicated that it sought divestiture of the CN ownership so that OMR could build a high-clearance tunnel at the same location at some time in the future. (See Chapter 3, "Project Description," of the Draft EA for more information.) Based on its review of the CP and OMR Verified Statements, SEA concluded that the transfer of ownership in and of itself would have no significant environmental effects. SEA also concluded that the information regarding potential future modifications or construction at the tunnel was too speculative for SEA to determine whether it indicated possible construction or modification of the tunnel or would cause any significant adverse environmental impacts.

1.9 PUBLIC INVOLVEMENT APPROACH AND PROCESS

In conducting its public participation activities, SEA considered pertinent Federal statutes, regulations, and executive orders. SEA designed its public participation activities to broadly inform the public and public agencies about the proposed CN/IC Acquisition and to notify them of the opportunity to raise environmental concerns and review and comment on the Draft EA. The public comments allowed SEA to assess public concerns and issues and determine the extent to which additional environmental analysis and mitigation measures were necessary in preparing the Final EA.

1.9.1 Draft and Final EA Notification Activities

SEA and the Board undertook a number of notification activities to inform the public of the proposed CN/IC Acquisition. These activities were conducted to help distribute the Draft EA and Final EA, notify the public of the availability of both documents, and provide the public with an opportunity to comment on all aspects of the Draft EA. Table 1-3, "Public Notification Activities," presents a detailed list of the Board's and SEA's public notification activities.

In addition to these activities, SEA also established a website (*www.cnicacquisition.com*) and toll-free telephone hotline (1-888-869-1997) to provide a place where interested parties can obtain updated information on SEA's environmental review and other environmental issues related to the proposed CN/IC Acquisition. SEA has updated the website and the hotline several times during the environmental review process.

Using Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," as a guide, SEA conducted additional public participation activities in communities where identified environmental justice populations could experience potential environmental impacts as a result of the proposed CN/IC Acquisition. The purpose of the Executive Order is to encourage Federal agencies to identify and address, as appropriate, disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment. In conducting its environmental analysis, SEA also referred to the following documents:

- The Council on Environmental Quality's *Environmental Justice: Guidance Under the National Environmental Policy Act.*

- The Department of Transportation's Executive Order 12898, *Department of Transportation's Order to Address Environmental Justice in Minority Populations and Low-Income Populations.*

- The Environmental Protection Agency's *Interim-Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses.*

The Draft EA contained a detailed discussion of the methodologies and analysis techniques that SEA used to identify potentially affected environmental justice populations.

Based on the environmental justice analysis, SEA conducted research in 35 communities with identified environmental justice populations to find appropriate local venues for disseminating information. Prior to issuing the Draft EA, SEA mailed the Environmental Fact Sheet to public and elected officials, community organizations, news media, and private individuals in these communities. In conducting further analysis of these 35 communities, SEA identified 13 where environmental justice populations could experience high and adverse environmental impacts as a result of the proposed CN/IC Acquisition. SEA developed a public outreach plan and tailored the plan to each community. SEA identified local media, libraries, organizations and groups, and public and elected officials to use in notifying environmental justice populations about the proposed CN/IC Acquisition. (Appendix N, "Public Participation Materials," of the Draft EA contained a copy of the public outreach plan SEA implemented.) SEA notified the communities by mailing the Environmental Fact Sheet to local organizations and elected and public officials, sending public service announcements to local radio stations, placing notices in local newspapers, and mailing a copy of the Draft EA to local libraries for public review.

TABLE 1-3
PUBLIC NOTIFICATION ACTIVITIES

Activity	Date
The Board published Decision No. 5, inviting public comment on the Procedural Schedule in the *Federal Register*.	June 26, 1998
The Board distributed a press release announcing its receipt of the Application and options available for public examination of the Application.	July 24, 1998
SEA distributed an Environmental Fact Sheet describing the proposed Acquisition and methodologies planned for its environmental analysis to the 35 communities with identified environmental justice populations and other interested parties.	August 6, 1998
The Board served Decision No. 6, accepting the Primary Application and issuing the Final Procedural Schedule.	August 14, 1998
The Board published Notice of Acceptance of Primary Application and Related Application in the *Federal Register*; the Board distributed a press release.	August 14, 1998
The Board published a Notice of Environmental Review Schedule in the *Federal Register*.	September 14, 1998
Board served Decision No. 11 with revised Procedural Schedule.	October 2, 1998
For the 13 communities with identified environmental justice populations, SEA placed media notices in newspapers and distributed public service announcements to radio stations to announce issuance and availability of the Draft EA. SEA distributed copies of the Draft EA to community libraries to allow for public review.	November 9, 1998
The Board served the Draft EA on Parties of Record, and SEA issued the Draft EA to the public for their review and comment.	November 9, 1998
The Board distributed a press release announcing the availability of the Draft EA.	November 9, 1998
The Board published a notice in the *Federal Register* announcing availability of the Draft EA and initiating a 30-day comment period on the Draft EA.	November 9, 1998
SEA updated its toll-free hotline and website to include information about the availability of the Draft EA and posted the Draft EA on the website.	November 9, 1998
SEA distributed an updated Environmental Fact Sheet to summarize its analysis, potential impacts, availability of the Draft EA, and SEA's environmental review schedule. SEA also distributed a press release and provided this information to communities with environmental justice populations.	November 9, 1998
The Board served decision No. 23 to provide the errata to the Draft EA.	November 23, 1998
Closing date for public comments on the Draft EA.	December 11, 1998
For the 13 communities with identified environmental justice populations, SEA placed media notices in newspapers and distributed public service announcements to radio stations to announce issuance of the Final EA. SEA distributed copies of the Final EA to community libraries to allow for public review.	March 1999
The Board served Final EA on Parties of Record; SEA issued Final EA to the public.	March 8, 1999
The Board published a notice in the *Federal Register* announcing the availability of the Final EA.	March 8, 1999

TABLE 1-3
PUBLIC NOTIFICATION ACTIVITIES

Activity	Date
The Board issued a press release to notify the media announcing the availability of the Final EA.	March 8, 1999
SEA updated its toll-free telephone hotline and website to include information about the availability of the Final EA and posted the Final EA on the website.	March 8, 1999
SEA distributed a postcard announcing the availability of the Final EA to interested parties not receiving the document.	March 8, 1999

1.9.2 Agency Notification

SEA conducted extensive agency consultation activities to inform public agencies about the proposed CN/IC Acquisition. SEA coordinated with appropriate Federal, state, and local public agencies through correspondence, telephone consultation, and agency meetings. Through its interaction with the agencies, SEA gathered data and information about the study area and any related projects. SEA also carefully assessed the comments that public agencies submitted on the Draft EA and other environmental concerns and addresses them in Chapter 2, “Comments and Responses,” of this Final EA.

As part of its agency notification process, SEA issued an Environmental Fact Sheet to approximately 425 public agencies after CN and IC filed their Application with the Board. SEA consulted with agencies in affected areas by letter, telephone, or meetings to coordinate issues, collect data, and provide information. Appendix T, “List of Agency Consultations and Relevant Correspondence,” of the Draft EA contains a complete list of the agencies with which SEA consulted while developing the Draft EA and copies of correspondence SEA sent to appropriate public agencies regarding the proposed CN/IC Acquisition. Through its interaction with the agencies, SEA gathered data and information about the study area and any related projects. SEA also carefully assessed the comments that public agencies submitted on the Draft EA and other environmental concerns and addresses them in Chapter 2, "Comments and Responses," of this Final EA. Additional correspondence received from agencies is presented in Appendix B, “Administrative Information,” of this Final EA.

SEA mailed copies of the Draft EA to the 425 public agencies with a cover letter encouraging recipients to submit environmental comments for consideration in preparing the Final EA. SEA will also distribute the Final EA to public agencies with a cover letter describing the Board’s final decision-making process.

1.9.3 Public Comment Process

The public comment process is a critical part of SEA’s environmental review. SEA established a 32-day public comment period for the Draft EA, which ended on December 11, 1998, and addressed each comment letter by environmental issue area. SEA considered all comments received by January 31, 1999 in preparing the Final EA. Chapter 2, “Summary of Comments and Responses,” of this Final EA includes SEA’s response to the comments by issue area; and Appendix D,

"Comment Letters," includes a copy of each written comment SEA received.
SEA received a total of 20 letters raising concerns in various issue areas during the public comment period. In preparing its response to the agency and public comments received on the Draft EA, SEA reviewed all environmental information available to date, conducted additional analyses, where appropriate, and consulted further with appropriate public agencies. The Final EA includes all comments SEA received by January 31, 1999 and SEA's final recommended environmental mitigation, which SEA modified in response to the comments received. The Board will consider the entire environmental record including the Draft EA, the Final EA, all public comments, and SEA's final recommended mitigation in making its final decision in this case.

1.10 OVERVIEW OF COMMENTS RECEIVED

SEA received 20 letters on the Draft EA raising a variety of environmental issues. The letters were received from the following agencies and organizations:

- **Federal Agencies:** Department of the Interior, Fish and Wildlife Service; Department of the Interior, Office of Environmental Policy and Compliance; Department of Transportation; and Environmental Protection Agency.

- **State Agencies:** Illinois Environmental Protection Agency; Michigan Department of Environmental Quality.

- **County and Local Governments:** City of Carbondale, Illinois; City of Champaign, Illinois; Makanda Township, Illinois; Village of Matteson, Illinois; City of New Orleans, Louisiana; the Southeast Michigan Council of Governments; and DeSoto County, Mississippi.[13]

- **Groups/Associations:** Center for Neighborhood Technology, Illinois; and the South East Chicago Commission.

- **Passenger Rail Service Provider:** National Railroad Passenger Corporation (Amtrak).

- **The Applicants.**

The comments SEA received raised questions or concerns regarding the following issues:

- Hazardous materials transport and safety.

[13] The City of Chicago submitted comments on the Draft EA during the public comment period, but later reached an understanding with the Applicants. In a February 17, 1999 filing with the Board, the City withdrew the Request for Conditions it had filed on October 27, 1998, its comments of December 11, 1998 on the Draft EA, and gave notice that it supports the proposed CN/IC Acquisition.

- SEA's analysis methodologies regarding noise, air quality impacts, freight train safety, hazardous materials transportation, cost savings associated with truck-to-rail diversions, environmental justice, and cumulative impacts.

- Freight and passenger train impacts and analysis.

Chapter 2, "Comments and Responses," of this Final EA presents a discussion of the issues contained in the comments SEA received, including SEA's response and any additional analysis SEA undertook to formulate its response. Each comment document is reproduced in Appendix D, "Comment Letters."

[This Page Intentionally Left Blank]

CHAPTER 2
COMMENTS AND RESPONSES

Chapter 2 summarizes the comments that SEA received on the Draft Environmental Assessment (Draft EA) regarding the proposed Canadian National Railway Company/Illinois Central (CN/IC) Acquisition and provides SEA's responses to the issues raised.[14] This chapter also provides an overview of the types of comments that SEA received.

SEA issued the Draft EA for public review and comment on November 9, 1998 and an errata clarifying certain points on November 23, 1998. In the Draft EA, SEA encouraged all recipients and reviewers to comment on all aspects of its technical analysis as well as the preliminary recommended mitigation measures. The formal 30-day period for reviewing and filing comments on the Draft EA ended on December 11, 1998. In developing this Final EA, SEA considered all comments that it received on the Draft EA and the errata by January 31, 1999. SEA did not receive any comments after January 31, 1999.

2.1 OVERVIEW OF COMMENTS

SEA received 20 comment letters on the Draft EA. Appendix D, "Comment Letters," contains a complete list of those comments and a copy (reduced) of each comment letter SEA received.

Commentors raised concerns about a number of issues. Within each issue, commentors requested a response to a variety of concerns including the following:

- Corrections or additions to factual information.
- Requests for additional information.
- Concurrence or disagreement with SEA's analytical approach and conclusions.
- Requests for modification to SEA's preliminary recommended mitigation.

Table 2-1, "Overview of Commentor Concerns," provides some of the specific concerns commentors raised by topic area.

---

[14] The "Surface Transportation Board" is hereinafter referred to as "the Board"; "Section of Environmental Analysis" is hereinafter referred to as "SEA"; the "Draft Environmental Assessment" is hereinafter referred to as the "Draft EA"; and the "Final Environmental Assessment" is hereinafter referred to as the "Final EA." "CN" stands for "Canadian National Railway Company and its subsidiaries"; "IC" stands for "Illinois Central Corporation and its subsidiaries"; and the "Applicants" hereinafter refers to CN and IC.

TABLE 2-1
OVERVIEW OF COMMENTOR CONCERNS

Topic	Concern
General Environmental Concerns	• Review process and timing. • Overall environmental benefits. • Significance of overall environmental effects. • Overall documentation of methods, thresholds for analysis, and criteria of significance that guided SEA's evaluation of environmental effects including hazardous materials transport, noise, air quality, intercity passenger rail operations, environmental justice, and cumulative effects. • Aggregation of certain types of data on a system-wide basis, such as rail accidents.
Rail Operations	• Train traffic volumes in certain areas. • Applicants' forecasted train activity. • Continuing review of forecasted train activity. • Wording of conclusions.
Hazardous Materials	• Relationship between SEA's preliminary recommended Key Route mitigation and existing Federal regulations. • Safety effect of train traffic congestion on trains carrying hazardous materials. • Applicants' general safety programs, such as TransCAER®. • Additional mitigation to prevent accidents or enhance safety. • Relationship of increases in hazardous materials transport to increases in overall freight transport. • Long-term monitoring of hazardous materials transport levels. • Identification of hazardous materials transported. • Increased hazardous materials transport activity in high-density or specific communities.
Rail Accidents	• Types of rail accidents. • Potential for common corridor accidents.
Emergency Response	• Adequacy of existing highway/rail at-grade crossings to provide access in emergencies. • Mitigation to support emergency response. • Local emergency response contacts in the event of an incident.
Intercity Passenger Rail Operations	• Local effects in specific communities. • Potential passenger rail capacity constraints from increased freight traffic. • Monitoring on-time performance.
Transportation	• Calculation of costs associated with truck-to-rail diversions.
Traffic Delay	• Traffic delay at highway/rail at-grade crossings.
Noise	• Location of affected receptors. • Criteria of significance. • Method of analysis. • Use of highway noise parameters in rail noise modeling. • Train horn noise.

TABLE 2-1
OVERVIEW OF COMMENTOR CONCERNS

Topic	Concern
Environmental Justice	• Appropriateness of statistical methodology. • Documentation of statistical methodology. • Determination of areas of potential effect. • Demographic data. • Prevention of and compensation for increased risk. • Increased hazardous materials transport activity levels in specific communities.
Air Quality	• Wording of system-wide analysis conclusions. • Hot-spot analysis for carbon monoxide. • Inclusion of local areas in Prevention of Serious Deterioration analysis. • Requests for mitigation. • Attainment status of specific counties.
Natural Resources	• Procedures for protecting habitat and threatened and endangered species in the event of a hazardous materials release.
Safety Integration	• Extent to which Safety Integration Plan covers the railroad companies involved in Applicants' Access and Alliance Agreements. • Commitment to safety integration planning process. • Coordination of Safety Integration Plan with local emergency responders.
Cumulative Effects	• Appropriate use of thresholds for analysis. • Context of historic hazardous materials incidents. • Relationship of changes in passenger rail, freight, and hazardous materials transport. • Potential for cumulative effects in specific areas, in particular Port Huron, Michigan.
Maintenance	• Railroad bridge structural condition. • Right-of-way upkeep.

2.2 COMMENTS AND RESPONSES

Section 2.2 summarizes the comments that SEA received on the Draft EA from various entities and SEA's responses to those entities:

- Sections 2.2.1 through 2.2.4: Federal agencies.
- Sections 2.2.5 and 2.2.6: State agencies in Illinois and Michigan.
- Sections 2.2.7 through 2.2.14: Local and county governments in Illinois, Louisiana, and Mississippi.
- Sections 2.2.15 through 2.2.16: Groups and associations in Illinois and Michigan.
- Section 2.2.17: Passenger Rail Service Provider (Amtrak).
- Section 2.2.18: The Applicants.

SEA has responded to each public comment according to the individual issues raised.

2.2.1 Federal Agency: United States Department of the Interior, Fish and Wildlife Service

The U.S. Department of the Interior (DOI), Fish and Wildlife Service (FWS), Vicksburg, Mississippi field office submitted comments on the Draft EA in accordance with the Fish and Wildlife Coordination Act (16 U.S.C. 661-667e) and the Endangered Species Act (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq*.). FWS reiterated concerns regarding hazardous materials and natural resources that it had submitted prior to publication of the Draft EA.

Hazardous Materials and Natural Resources

Comment: FWS expressed concern about hazardous materials transport, which could cause significant impacts to natural resources if a spill were to occur. It recommended that the Applicants take all existing safety precautions to ensure that transported hazardous waste does not enter aquatic or terrestrial fish and wildlife habitats. Additionally, FWS recommended that emergency management plans include guidelines for immediate consultation with FWS personnel regarding potential adverse impacts to listed species.

FWS noted that according to the Draft EA, the Applicants will follow all U.S. Department of Transportation (DOT) regulations pertaining to the shipment of hazardous materials. FWS also noted that CN has implemented an "Emergency Response Plan" outlining procedures for protecting personnel, property, and the environment at the scene of an accidental spill, as well as alerting emergency response authorities. However, FWS continues to recommend that emergency management plans include guidelines for immediate consultation with FWS personnel regarding potential adverse impacts to the listed species that occur in several counties along the Mississippi portion of the rail line.

Response: SEA notes that under existing regulations, CN and IC must take all existing safety precautions to ensure proper and safe handling of hazardous materials to prevent any adverse effects or interference with aquatic or terrestrial fish and wildlife habitats. SEA also concurs that CN and IC should follow all DOT regulations regarding the shipment of hazardous materials. SEA notes that DOT's Federal Railroad Administration (FRA) is responsible for regulating the transport of hazardous materials. DOT has numerous regulations to ensure that railroads take all precautions when transporting hazardous materials. SEA recommends mitigation to supplement these regulations where the proposed Acquisition would result in substantial increases in hazardous materials transport. To mitigate the potential safety effects of Acquisition-related increases in hazardous materials carloads, SEA is recommending that the Board require the Applicants to comply with Association of American Railroads (AAR) Key Route guidelines and other safety measures to reduce risk.

SEA reviewed Federal emergency response planning and notification requirements in

the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Clean Water Act. In the event of a hazardous materials release exceeding certain specified quantities, the railroad or other responsible party would notify the National Response Center. The National Response Center would then notify appropriate Federal agencies, including DOI. In addition, railroads must notify the National Response Center in the event of a hazardous materials release that exceeds DOT reporting requirements, which are based on injuries and property damage. In response to the FWS comment, the Applicants have agreed to notify FWS in the event of a hazardous materials release along their rail line segments. SEA modified its recommended mitigation to include a condition that requires CN and IC to notify and consult with FWS personnel immediately following an accidental release that could affect threatened or endangered species.

2.2.2 Federal Agency: United States Department of the Interior, Office of Environmental Policy and Compliance

DOI, Office of the Secretary, Office of Environmental Policy and Compliance, a Federal agency located in Atlanta, Georgia, reiterated the comments submitted by the FWS Vicksburg Field Office in their letter dated November 5, 1998.

Hazardous Materials Transport and Natural Resources

Comment: DOI stated that FWS had expressed concerns about the transport of hazardous materials, which could cause significant impacts to natural resources if a spill were to occur. DOI also stated that FWS had recommended that the Applicants take all existing safety precautions to ensure that transported hazardous wastes, which have acute and chronic effects on fish and wildlife, do not enter into aquatic or terrestrial fish and wildlife habitats. DOI noted that DOT safety regulations govern the safe transport of hazardous materials. DOI also noted the additional FWS recommendation that emergency management plans include guidelines for immediate consultation with FWS personnel regarding potential adverse impacts to threatened and endangered species. DOI continues to recommend that emergency management plans include guidelines for immediate consultation with FWS personnel regarding potential adverse impacts to listed species that occur in several of the states the rail line serves.

Response: SEA notes existing regulations require CN and IC to take all existing safety precautions to ensure proper and safe handling of hazardous materials to prevent any adverse effects or interference with aquatic or terrestrial fish and wildlife habitats. As stated in the response to FWS's Vicksburg, Mississippi comments, SEA modified its recommended mitigation to include a condition that requires CN and IC to notify and consult with FWS personnel immediately following an accidental release that could affect threatened or endangered species.

2.2.3 Federal Agency: United States Department of Transportation

DOT commented on SEA's approach to mitigating the impacts of increased hazardous materials transport and the Safety Integration Plan.

Hazardous Materials

Comment: DOT commented on the measures SEA recommended to mitigate the potential impact of hazardous materials transport. DOT noted that the Draft EA identified the Applicants' proposed increases in hazardous materials transport as the only aspect of the proposed Acquisition with the potential to have a significant impact on the environment (see Draft EA, Volume 1, Chapter 4, page 4-1). System-wide, the transaction would result in four new Key Routes and ten new Major Key Routes. DOT noted that AAR has promulgated industry guidelines for Key Routes that entail the use of defect detection equipment, inspections, and various operating restrictions (AAR Circular OT-55-B). DOT argued that SEA's recommended mitigation measures of AAR guideline compliance by the Applicants could confuse the regulated community in general, and the Applicants in particular, as to their duty to comply with the Code of Federal Regulations (CFR).

DOT stated that it has specific regulations for packaging, handling, and treating hazardous materials at 49 CFR Parts 171-180, which provide mandatory, uniform safety standards for all movements of dangerous commodities, including those that move by more than one mode. FRA promulgated these rules to account for a number of applicable factors such as crew size, train length/weight limits, increased railcar inspections, and specialized training for train crews and inspectors.

DOT stated that through FRA, DOT has consistently promoted emergency response planning and community awareness programs with respect to rail shipments of hazardous materials. Therefore, DOT agreed that the Applicants should be involved in such planning with the input of local communities. DOT cannot, however, endorse an approach that it believes treats AAR guidelines as though they were Federal regulatory standards.

Response: SEA intends that its mitigation measures for hazardous materials transport provide additional safety measures to address the potential substantial near-term changes in rail traffic resulting from the proposed CN/IC Acquisition. Thus, SEA's conditions are temporary measures that would remain in effect for only three years (which is expected to be the Applicants' implementation period), unless the Board establishes a longer oversight period for this transaction (which then would govern). SEA recognizes that Federal regulations pertain to the transportation of hazardous materials by rail and that the Applicants, like any other railroads, must comply with all applicable Federal regulatory standards.

In short, SEA intends for its recommended mitigation measures to provide supplemental assurance to communities during the implementation period. SEA based its recommended requirements on voluntary guidelines established by AAR. Railroads typically implement these additional safety measures the year after

hazardous materials rail traffic increases on a rail line segment. In this case, as in the Board's review of the recent Conrail Acquisition, SEA recommends that the Board require the Applicants to implement these safety measures sooner than usual (i.e., before the traffic changes are implemented) because of the projected Acquisition-related increase in hazardous materials traffic on some rail line segments.

In addition, SEA is recommending that the Board require the Applicants to work closely with local communities along these rail line segments to coordinate emergency response planning efforts. SEA believes that these mitigation measures are appropriate to address the potential risk of increased hazardous material transport resulting from the proposed CN/IC Acquisition. SEA based its recommended hazardous materials transport mitigation on adherence to voluntary industry standards and does not intend in any way to replace, change, or interfere with the legally binding Federal regulations that govern the transport of all hazardous commodities. SEA has modified its preliminary hazardous materials mitigation to clearly state that it would remain in effect only for a limited time while the Applicants implement the transaction.

Comment: DOT expressed concern about SEA's adoption of the AAR circular's "key train" concept (AAR Circular OT-55-B), which DOT stated could lead to lower standards of care for other trains carrying hazardous materials. DOT stated that its hazardous materials regulations impose higher standards for packaging, handling, and documentation of more dangerous commodities and less stringent standards for less dangerous items in order to secure the same low risk for the transportation of ***all*** (DOT emphasis added) regulated commodities. According to DOT, the "key train" concept, made mandatory, would tend to frustrate DOT's intent. DOT further suggested that SEA should not attempt to create legally binding standards in this area, but instead SEA should merely commend these "good practices" to the Applicants for appropriate use consistent with Federal hazardous materials regulations. DOT added that the Applicants' Safety Integration Plan includes plans to comply with all Federal hazardous materials regulations.

DOT noted that it had raised these same concerns in the Draft Environmental Impact Statement in the recent Conrail/CSX/Norfolk Southern consolidation. DOT stated that the Board's final decision in that case upheld those recommendations without any discussion of DOT's concerns. DOT requested that SEA and the Board specifically address these issues if it decides to accept the Draft EA's recommendations with regard to the AAR guidelines.

Response: SEA does not believe that its recommended mitigation requiring the Applicants to operate certain trains as "key trains" would conflict with or result in lower safety standards for other trains that carry hazardous materials but do not reach key train levels. Federal regulations govern all hazardous materials transport by rail. SEA intends that its recommended mitigation provide an extra measure of safety protection to address near-term potential impacts of the proposed Acquisition by applying the railroad industry's Best Management Practices for hazardous materials transport. Additionally, SEA believes that recommending the mitigation as a condition of the proposed Acquisition, rather than merely commending it as good practices, would link SEA's mitigation to the specific potential impacts of this transaction and encourage compliance with the proposed mitigation. However, SEA has modified the hazardous materials mitigation to clearly state that the mitigation will remain in effect for a limited time, after which the Applicants would voluntarily apply these standards to supplement DOT requirements.

As previously stated, SEA is not recommending a new or different legal standard with respect to hazardous materials transport. Rather, SEA is recommending a condition on the proposed CN/IC Acquisition that would neither interfere with nor lower the DOT standard. SEA's recommended mitigation would simply provide supplemental safety protection during the initial implementation period.

Safety Integration Plan

Comment: DOT commented that the Draft EA preliminarily concluded that complete cooperation by the Applicants with the safety oversight process and a Safety Integration Plan responsive to FRA's comments would address all safety integration issues. DOT's preliminary comments on the proposed Acquisition noted the need for additional refinement of the Safety Integration Plan. The Applicants have assured FRA that they will continue to refine their safety plan.

Response: SEA agrees that the development of the Safety Integration Plan is an ongoing process that will continue for the duration of the Applicants' implementation period and the Applicants will need to refine the Safety Integration Plan. SEA's recommended mitigation encourages continued discussions between the Applicants and FRA to resolve any safety integration issues. The mitigation also maintains the Board's authority to require action by the Applicants if FRA identifies any unresolved issues or safety integration concerns. The mitigation would remain in place until FRA identifies to the Board that the proposed Acquisition, if approved, has been implemented safely.

Comment: DOT's preliminary comments on the proposed Acquisition indicated that the Applicants had failed to cooperate fully with FRA regarding the safety integration aspects of their marketing and operating arrangements with the Kansas City Southern Railroad Company (KCSR). DOT also noted that the Applicants have assured FRA that they will incorporate within the Safety Integration Plan all relevant matters arising from the Applicants' agreements with KCSR.

Response: SEA continues to work with FRA and the Applicants to ensure that the Board's review of the proposed CN/IC Acquisition addresses all relevant safety integration issues. The Applicants' discussions with FRA regarding the KCSR Access and Alliance agreements have appropriately focused on safety integration efforts relevant to the proposed CN/IC system and interchange points between the proposed CN/IC system and the KCSR system. SEA is confident that ongoing discussions regarding safety integration related to the proposed CN/IC system and interchange points with KCSR will resolve any outstanding issues.

2.2.4 Federal Agency: United States Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) submitted comments on the following issues:

- General environmental concerns.
- Rail operations.
- Hazardous materials.
- Air quality.
- Intercity passenger operations.
- Traffic and roadway systems.
- Environmental justice.
- Cumulative effects.

Many of EPA's comments raised concerns about the level of detail and supporting documentation SEA provided in the Draft EA. In response, SEA has provided the additional detail and supporting information for its conclusions in Appendix A, "Technical Information," of this Final EA, as well as in the responses to EPA's specific comments, which are provided below.

SEA has also consulted informally with EPA Headquarters and its various regions numerous times during development of the Draft and Final EA. For example, SEA and EPA consulted in the fall of 1998 during preparation of the Draft EA and again on January 27 and February 12, 1999. Telephone conferences also have been held. In these discussions, SEA and EPA engaged in dialogue concerning SEA's technical approaches in various issue areas, including potential noise, air quality, environmental justice and cumulative effects.

SEA believes that, at this point, EPA is satisfied that SEA took the requisite "hard look" at environmental issues related to the proposed CN/IC Acquisition and that its technical approach and conclusions are generally reasonable for this case. SEA and EPA also have agreed to continue their informal consultation regarding SEA's analysis and methodology for future cases. SEA now addresses and responds to EPA's specific concerns.

General Environmental Concerns

Comment: In its comments on the Draft EA, EPA expressed concerns about the level of detail documenting SEA's noise, air quality, and environmental justice analysis; the methodologies SEA used to evaluate environmental impacts and identify affected populations in its environmental justice analysis; SEA's use of thresholds; and the criteria used to determine significant impacts warranting mitigation.

Response: As discussed previously, SEA has met on several occasions with EPA staff to discuss various aspects of the Draft EA and SEA's environmental review of the proposed CN/IC Acquisition, and further explain the basis for the conclusions that troubled EPA. (See Appendix B, "Administrative Information.") Also, to respond to EPA's concerns, this Final EA provides additional detail regarding noise, air quality, and environmental justice methodologies and potential impacts. This additional information is included in responses to the following comments and in Appendix A, "Technical Information."

SEA believes that all of the additional environmental documentation in the Final EA addresses EPA's concerns and demonstrates that SEA took the requisite "hard look" at the environmental issues associated with this case. Further, it provides an adequate basis for SEA's conclusion that with SEA's recommended mitigation, there is no potential for significant environmental effects. SEA and EPA also have agreed to continue discussions regarding appropriate impact analyses and methodologies for future cases.

Comment: EPA suggested that SEA should document that the thresholds it used to analyze the impacts of the proposed CN/IC Acquisition are effective and protective tools for determining whether an environmental analysis is needed and for identifying activities that could result in significant environmental effects.

Response: To evaluate the potential environmental effects of the proposed CN/IC Acquisition, SEA developed thresholds to determine where increases in rail activities have the potential to cause adverse environmental effects. In determining appropriate thresholds for this case, SEA relied on its experience with previous railroad acquisitions. SEA selected thresholds for this case that are similar to those used in the recent Conrail Acquisition proceeding because they provide a conservative means for focusing its environmental analysis on the areas most likely to experience impacts and because thresholds are appropriate for cases covering broad geographic areas. SEA believes that its use of thresholds represents a practical approach to addressing potential environmental impacts for a project that spans thousands of miles and involves numerous rail line segments. SEA identified no basis to believe that potential significant impacts were overlooked.

In addition, SEA notes that its reliance on thresholds was not absolute. SEA also conducted a detailed review of environmental issues and concerns that the public identified during the environmental review process and conducted additional analysis

where appropriate to determine whether significant environmental impacts could occur. Appendix A, "Technical Information," contains Table A.3-1, "Rationale for Thresholds and Criteria," which lists all of the thresholds SEA used for this proceeding and presents SEA's rationale for their use.

SEA notes that the thresholds used are not necessarily high. For example, SEA conducted a system-wide evaluation of potential changes in hazardous materials traffic for all rail line segments that would experience an Acquisition-related increase in hazardous materials transport. SEA's threshold for its local rail line segment analysis in this case is any increase in hazardous materials railcar traffic on a rail line segment.

SEA believes that the other thresholds used in this case also are reasonable and conservative. To identify the potential Acquisition-related effects on passenger rail safety and passenger rail capacity, SEA evaluated any rail line segment that carries both passenger trains and freight trains and would experience an increase of one or more freight trains per day. SEA's analysis did not identify any significant impacts on rail line segments that exceed this threshold. Because the potential increase in passenger rail accidents and decrease in passenger rail capacity are generally directly proportional to the increase in freight traffic, there is no potential for significant impacts on the rail line segments that would experience an average freight traffic increase of less than one train per day.

For highway/rail at-grade crossing safety and delay, SEA evaluated all crossings on rail line segments that would experience an increase of eight or more trains per day. To determine if potentially significant effects would occur at less than an eight train increase, SEA examined the potential "worst case scenario" for highway/rail at-grade crossing delay resulting from the proposed CN/IC Acquisition. To do so, SEA analyzed the rail line segments with the greatest increase in train traffic and highway/rail at-grade crossings to determine whether potentially significant impacts to traffic delay could occur.

In this case, the "worst case scenario" would occur on the Matteson, IL-to-Kankakee, IL rail line segment (segment 187), which would experience an increase of 7.1 trains per day (from 12.9 to 20.0). SEA assumed a conservative train speed of 20 mph (actual speed limits on the segment are between 30 and 70 mph) and a traffic level of 20,000 vehicles per day on a two-lane road (one lane in each direction). Using these conservative assumptions, SEA determined that the traffic level of service (LOS) would remain as LOS B after the proposed Acquisition. (LOS is a standard measure of intersection congestion, where LOS A represents the least degree of congestion and LOS F represents the worst degree of congestion.) SEA's criterion of significance considers mitigation for LOS D, E, or F. Therefore, SEA concludes that train traffic changes of less than eight trains per day (SEA's threshold) would not result in any significant impacts to traffic delay. Accordingly, SEA believes the thresholds it used were reasonable and appropriate for this case.

Comment: EPA pointed out that the Draft EA's aggregation of data across the entire system

made it difficult to discern local impacts. EPA expressed concern that this method of reporting data may overlook areas of significant impacts by averaging those areas with others across the system. EPA believes it is important to look at impacts at the local level, where mitigation can offset adverse effects.

EPA cited the data on the frequency of mainline accidents and freight rail accidents as examples of data that should not be aggregated. EPA stated that some areas affected by the proposed Acquisition might have a higher than average rate of freight and passenger freight accidents, which this methodology fails to identify.

Response: SEA thoroughly evaluated potential system-wide environmental impacts for freight and passenger rail accidents and accounted for local factors in its analysis. Because rail accidents are infrequent, SEA believes it is appropriate to consider national or system-wide accident rates in combination with local factors to predict potential increases in accidents resulting from increased rail traffic. Local factors that SEA considered in its analysis include train speed, the number of hazardous materials railcars, train length, track class, and traffic levels. If SEA had used only historical accident rates for local or individual rail line segments, the predicted accident rates would have been overly influenced by even a single accident on a particular rail line segment.

To analyze the risk of a hazardous materials release from a rail accident, SEA used a similar approach that combined basic nationwide data with segment-specific variations in operating conditions to develop segment-specific risks. SEA based its yard accident rates on past performance in CN and IC yards, and the way in which CN and IC intend to handle the cars that they would switch.

SEA believes its approach is reasonable and accurately predicts the potential for passenger and freight accidents, including freight accidents involving hazardous materials. SEA's methodology adequately takes into account local variations and effectively addresses EPA's concern. There is no basis to believe that SEA overlooked potential significant impacts.

Rail Operations

Comment: EPA commented on a sentence in Section 4.1 of the Draft EA that states, "In its evaluation of individual rail line segments SEA found that none of the rail line segments in the proposed CN/IC would experience rail activity levels that would meet or exceed the Board's Thresholds for Environmental Analysis." (See Draft EA, Volume 1, Chapter 4, Section 4.1, "Freight Rail Operations Safety," page 4-3.) EPA states that SEA made this statement in a section addressing safety so that the conclusion apparently was meant to be specific to safety, but is concerned that the broad wording made it appear to be a universal conclusion.

Response: SEA clarifies that it intended this statement to refer only to the freight rail operations safety section in which it appears. The sentence should be interpreted to mean that

none of the rail line segments in the proposed CN/IC would experience rail activity levels that would meet or exceed the Board's thresholds for environmental analysis for freight rail operations safety or highway accidents.

Hazardous Materials Transport Safety

Comment: EPA commented that SEA's threshold for hazardous materials transportation (20,000 or more railcars and a two-fold increase in hazardous materials railcars) may screen out impacts that could be significant. EPA believes that a more appropriate threshold for hazardous materials transportation would be line segments that exceed 20,000 railcars of hazardous materials.

Response: According to SEA's threshold for hazardous materials transport, any projected increase in hazardous materials transport would require further analysis. In other words, SEA evaluated the potential environmental impacts for <u>any</u> rail line segment that would experience an increased number of hazardous materials railcars following the proposed CN/IC Acquisition.

EPA's concern relates to SEA's criteria of significance for hazardous materials transport, or the level at which mitigation is appropriate. As the Board's practice is to mitigate only those environmental impacts that result from the proposed transaction under review, not the pre-existing environmental impacts of railroad operations, SEA does not believe it would be appropriate to require mitigation for all rail line segments that would exceed 20,000 railcars of hazardous materials transport as EPA suggested.

Moreover, existing DOT regulations establish safety procedures for packaging and handling hazardous materials and for train operations and track inspections. SEA believes that these regulations provide an appropriate level of safety protection for communities along rail line segments.

SEA believes, however, that where the proposed CN/IC Acquisition would cause substantial increases in hazardous materials rail car traffic, additional emergency response planning and coordination with local communities is reasonable and appropriate. Therefore, SEA established a criterion of significance for hazardous materials transport. SEA defined the criterion as a projected increase of hazardous materials railcar traffic of 100 percent (i.e., doubling) that causes the total number of hazardous materials railcars to exceed 20,000 per year. SEA considered a 100 percent increase yielding less than 20,000 annual carloads to be within the normal fluctuations of hazardous materials traffic; therefore, such increases would not warrant mitigation.

SEA believes that its criterion for significance and recommended mitigation appropriately supplement Federal safety requirements on those rail line segments that would experience a substantial Acquisition-related increase in hazardous materials transport.

Passenger Rail Safety

Comment: EPA commented that SEA's threshold for passenger train safety, which is an increase of 25 percent or more in the rate of accidents, may overlook potentially significant impacts. EPA also notes that the Draft EA did not discuss how this threshold was derived or what level of protection it provides.

Response: For the passenger train safety analysis SEA presented in the Draft EA, SEA evaluated all rail line segments with passenger train traffic where the number of freight trains would increase by one or more freight trains per day. This level of increase was SEA's threshold for analysis. EPA's concern appears to relate to SEA's criterion of significance for passenger rail safety, which has two parts.

SEA considered potential impacts to passenger rail safety to be significant (i.e., warrant mitigation) if the projected change in the accident frequency would be greater than 25 percent <u>and</u> the rail line segment was predicted to experience an accident more frequently than once every 150 years. SEA applied the same criterion of significance for the recent Conrail transaction.

National train accident rates vary by approximately 30 percent from year to year. Therefore, SEA established a threshold to determine whether the change in accident frequency would be greater than a more conservative increase of 25 percent. In other words, SEA considered any predicted increase in accident rates greater than 25 percent to be outside the normal annual fluctuation in accident rates and a potential impact that would be solely attributable to the proposed Acquisition.

SEA then determined whether the predicted accident rate for the rail line segment would exceed the annual experience for passenger train accidents of various passenger service providers, which is once every 150 years. If the change satisfied both parts of this criterion, SEA considered mitigation for the line segment. SEA believes this criterion identifies segments that bear a disproportionate share of risk that can fairly be attributed to the proposed Acquisition. SEA did not identify any rail line segments that satisfied both parts of SEA's criterion. Therefore, SEA

does not believe that any potentially significant passenger train safety impacts associated with this proceeding warrant mitigation.

Air Quality

Comment: EPA raised concerns about language in the Draft EA where SEA indicated that it did not develop criteria of significance for air quality because the proposed CN/IC Acquisition would not cause changes in emissions. (Draft EA, Volume 1, Chapter 4, Section 4.1.2, "System-wide Analysis," page 4-83.) EPA commented that this was an oversimplification, as there are indeed changes in certain emissions as a result of the proposed Acquisition.

Response: SEA's air quality analysis determined that for most criteria pollutants (volatile organic compounds, carbon monoxide (CO), nitrogen oxides, and particulate matter), the proposed Acquisition would result in a system-wide decrease in emissions. SEA also identified a potential increase in sulfur dioxide (SO_2) emissions of 38.5 tons per year. Because there would be a system-wide decrease in all other emissions, SEA did not develop a specific criterion of significance for each pollutant. Instead, SEA considered the magnitude of potential increase in SO_2 emissions in the context of total SO_2 emissions for all of the counties affected by the proposed CN/IC Acquisition. SEA determined that the increase in SO_2 emissions would be less than two one-thousands of one percent (0.002%) of the total emissions for the study area. SEA concluded that this increase is insignificant. SEA also performed a more focused analysis of county-wide emissions to assess local variations in the distribution of total system-wide emissions and concluded that no significant local air quality effects would occur.

Comment: EPA was concerned with the use of 100 tons/year *de minimis* for carbon monoxide as a screening tool. EPA stated that while general conformity sets up a *de minimis* level for determining which projects need a full conformity analysis, this level should not be used routinely in an EA to avoid doing a CO hot-spot analysis. EPA suggested that a hot-spot analysis be used to evaluate impacts at intermodal facilities and rail yards.

Response: In response to EPA's comment regarding the use of 100 tons/year *de minimis* for CO as a screening tool, SEA notes that the calculations in the Draft EA for CO emissions are considerably below the 100 tons/year screening criterion used in this case. SEA agrees that the use of 100 tons/year as a strict threshold may not always be appropriate, especially if projected emissions would approach the threshold. However, the county-level analyses for this case indicate that the greatest emissions increase would be an increase of 28.4 tons/year following the proposed CN/IC Acquisition which is far less than 100 tons/year. Therefore, SEA believes it was reasonable to conclude that no potential significant CO impacts would occur at highway/rail at-grade crossings, intermodal facilities, or rail yards.

As discussed in Chapter 4, "Environmental Consequences," of the Draft EA (pages

4-84 to 4-85), SEA considered whether dispersion modeling would be appropriate for determining if Acquisition-related changes in air would result in localized exceedances of the National Ambient Air Quality Standards (NAAQS) or other negative localized health impacts (i.e., "hot spots"). To determine whether dispersion modeling would be appropriate to identify localized CO impacts for this transaction, SEA reviewed the results of dispersion modeling it performed for the recent Conrail Acquisition, which involved greater changes in rail traffic than the proposed CN/IC transaction. To perform a conservative screening analysis for the Conrail Acquisition, SEA had used dispersion modeling to determine potential ambient CO concentrations from motor vehicle delays at highway/rail at-grade crossings. SEA had used EPA's CAL3QHC model to analyze conditions at highway/rail at-grade crossings with high average daily traffic (ADT) volumes (up to 41,700) and large projected vehicle delay (up to 2,972 vehicle-minutes per day), and SEA had included conservative receptor locations and meteorological conditions in the modeling analysis. In this dispersion modeling analysis for the Conrail Acquisition, SEA identified no exceedances of the NAAQS for CO; therefore, SEA concluded that the Conrail Acquisition would not result in adverse localized CO impacts.

For the proposed CN/IC Acquisition, the values presented in the Applicants' traffic and Operating Plan were either less than or equal to the values that SEA used in the dispersion model for the Conrail Acquisition. Therefore, SEA concluded that CO dispersion modeling for the proposed CN/IC Acquisition would predict lower CO concentrations than the model had predicted for the Conrail Acquisition. Based on this comparison, SEA identified no reason to expect CO hot spots at highway/rail at-grade crossings associated with the proposed CN/IC Acquisition, and it concluded that separate dispersion modeling was not necessary to assess the localized CO impacts.

SEA performed analyses to determine whether CO hot spots would occur at rail yards and intermodal facilities and on roads near these facilities following the proposed CN/IC Acquisition. SEA does not expect that Acquisition-related increases in lift equipment, yard truck, and switching locomotive activity at rail yards and intermodal facilities or increased truck traffic within intermodal facilities would create CO hot spots, because these emission-producing activities are distributed over a large area. SEA also analyzed potential traffic on local roads to identify potential CO hot spots associated with increased truck traffic on roads near these facilities. Only the Moyers Intermodal Terminal would have increased activity levels exceeding the Board’s threshold for environmental analysis. (See Chapter 4, "Environmental Consequences," of the Draft EA, pages 4-61 to 4-66.) SEA determined that the total daily increase in truck traffic would be less than 1 percent of the ADT volume on major roadways used by trucks to enter and leave this facility. As a result of the negligible increase in ADT volume,

SEA does not expect CO hot spots to result from increased truck traffic near rail yards and intermodal facilities.

Noise

Comment: EPA commented after reviewing Appendix G of the Draft EA that the Final EA should more fully disclose potential noise impacts by providing noise contour maps for the affected segments and the specific locations of affected populations, including environmental justice populations. EPA also expressed concern about the Draft EA's use of a 3 A-weighted decibel (dBA) increase to the 65 dBA day-night equivalent sound level (L_{dn}) adverse impact criterion. EPA believes this criterion differs from the criterion stated in the Board's regulations at 49 CFR Section 1105.7.

Response: SEA has included noise contour maps that the Applicants provided in Appendix A, "Technical Information," of the Final EA. The maps show the locations of sensitive receptors for the rail line segments SEA analyzed.

SEA identified environmental justice populations adjacent to seven of the rail line segments in Illinois it evaluated for noise:

- Bridgeport-to-BRC-CCP Crossing (rail line segment 100).
- BRC-CCP Crossing-to-Hawthorne Yard (rail line segment 102).
- Hawthorne Yard-to-Broadview (rail line segment 104).
- Harvey-to-Homewood (rail line segment 175).
- Fullerton-to-Clinton (rail line segment 217).
- Clinton-to-Mount Pulaski (rail line segment 225).
- Mount Pulaski-to-Springfield (rail line segment 230).

None of these populations would experience significant noise impacts warranting mitigation. Because none of these impacts would be significant, SEA determined that the impacts would not be disproportionately high and adverse for these environmental justice populations.

SEA believes its use of the 3 dBA increase and 65 dBA L_{dn} as an adverse impact criterion is consistent with the Board's regulations at 49 CFR Section 1105.7. As SEA discussed during meetings with EPA, the Board's rules provide that SEA's noise analysis determine the number of noise-sensitive receptors that would experience noise levels of 65 dBA L_{dn} <u>or</u> an increase of 3 dBA. However, the Board's rules do not specify the levels of significance that would warrant mitigation of Acquisition-related noise impacts. SEA's analysis for the Draft EA assessed the number of noise-sensitive receptors within the 65 dBA L_{dn} noise contour before and after the proposed CN/IC Acquisition. SEA then conducted its noise analysis to determine whether the noise impacts for these receptors would be potentially significant and warrant mitigation. Consistent with its noise analysis for previous railroad mergers, SEA concludes it is impractical and unnecessary to identify the noise sensitive receptors that would experience an increase of 3 dBA but noise levels

of less than 65 dBA L_{dn}.

To determine whether noise impacts would be potentially significant, SEA identified all noise-sensitive receptors that would experience noise levels greater than 65 dBA L_{dn} with an Acquisition-related increase in noise levels of 3 dBA. SEA would have considered mitigation for noise receptors that would experience this noise level, which is consistent with criteria other Federal agencies use. SEA concludes this approach appropriately focuses any mitigation on those areas where the Acquisition-related increase in train traffic would result in a substantial increase in noise levels. Consistent with the Board's practice, this criterion does not direct mitigation at noise resulting from pre-existing train traffic.

Comment: EPA expressed concern that the Board is not using a standard methodology for noise analysis in all cases; and as a result, it stated that SEA gives the appearance, perhaps unfairly, of crafting an approach that suits the desired outcome. EPA recommended that the Board develop one peer-reviewed noise model that could be used consistently for Board actions. EPA also contends that it would be more appropriate to describe noise levels in terms of compatible land use than whether they are "adverse."

Response: SEA developed its noise model to consider the particular circumstances of railroad activities and adjacent land uses. SEA has applied this noise model consistently in recent railroad transactions. SEA also notes that its model applies noise modeling techniques similar to those that the Federal Transit Administration (FTA) uses to consider noise from train engines, wheels, and horns. SEA is familiar with FAA's Integrated Noise Model, FHWA's Traffic Noise Model, and other agencies' noise models and analytical approaches. SEA believes that there are differences between these modeling techniques because each is suited for the different criteria, mitigation, and the policies these agencies adopt.

SEA agrees with EPA that noise levels in excess of 65 dBA L_{dn} are considered adverse and may be incompatible with residential land uses. However, SEA concludes that it would be inappropriate to mitigate noise levels for all noise receptors that would experience adverse noise levels greater than 65 dBA L_{dn} because it is the Board's practice to mitigate only significant adverse environmental impacts that result from a proposed acquisition. In this case, as with the Conrail Acquisition, SEA used a noise assessment method to identify receptors that would experience noise levels above 65 dBA L_{dn} and an increase of 3 dBA or more. SEA's analysis did not identify any such noise receptors. Therefore, SEA has not recommended noise mitigation.

Comment: EPA questioned whether it was appropriate to rely on highway models to analyze train impacts. EPA pointed out that, "SEA made adjustments to the contours to account for the effects of acoustic shielding by intervening buildings. SEA based these adjustments on the approach often used for highway noise projections." (Draft EA, Volume 2, Appendix G, "Noise Analysis Methods and Results," Section

G.5.1.1, page G-5.) EPA suggests that because train noise differs from highway noise in its frequency range and other aspects, there is no justification for adjusting the projected levels based on intervening buildings.

Response: SEA is aware that the frequency range of train noise differs from highway traffic, but SEA used the FHWA shielding method primarily because it is appropriate to use for large-scale screening projects. SEA notes that FTA, another agency with responsibility over rail transportation, also uses this method. SEA believes that this method is appropriate because it conservatively accounts for less shielding than other published railroad shielding methods such as Walker or Rathe.[15]

Traffic and Roadway Systems

Comment: EPA cited Attachment D-4, "Truck Miles Removed from Highway System," of the Draft EA, which presented the cost savings associated with truck-to-rail diversions (Draft EA, Volume 2, Appendix D, page D-4-1), as an example of an analysis that could be misinterpreted. The table indicates the cost savings associated with taking trucks off the road, but EPA indicated that the calculations failed to account for the associated costs of rail operations (such as congestion, traffic delay, accidents, and noise).

Response: As EPA notes, SEA's calculations reflected the potential costs savings to Federal, state, and local governments associated with freight diversions from truck to rail. SEA determined that the potential public cost savings would be very small, totaling less than $3 million per year for the entire study area. SEA's calculations did not take into account the related costs of increased rail activity because these costs are borne primarily by private railroad operators. SEA acknowledges that indirect public costs could arise following increased operations, such as from increased traffic delay or community noise impacts. However, estimating these indirect public costs would have required a complex economic analysis that did not appear to be justified.

Environmental Justice

Comment: EPA expressed concern about SEA's use of a spatial area of potential effect as an additional threshold in its analysis of environmental justice.

Response: An environmental justice analysis requires that SEA define a geographic area for demographic analysis. The Draft EA documented the basis for the spatial area of potential effect at Appendix L, pages L-3 to L-4 (especially footnote nos. 3 and 4 on page L-4). SEA used the area of potential effect to identify which populations

---

[15] Council on Environmental Quality, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment*, DOT-T-95-16, April 1995.
Walker, J.G., "Factors Affecting Railway Noise Levels in Residential Areas." *Journal of Sound and Vibration*, Vol. 51, p. 393.
Rathe, E.J. "Railway Noise Propagation," *Journal of Sound and Vibration*, Vol. 51, 1977, p. 371.

affected by the proposed rail activities should be considered low-income or minority (environmental justice) populations, based on the demographic characteristics.

Comment: EPA asked questions about the Board's statistical methodology for determining environmental justice impacts. EPA offered to work with the Board to develop a mutually agreeable methodology for future cases.

Specifically, based on the information in the Draft EA, EPA raised a number of concerns about the statistical method used to analyze the potential of disproportionately high and adverse impacts on environmental justice populations. In its written comments on the Draft EA, EPA generally opposed SEA's use of nonparametric statistical tests such as the chi-square test and recommended that, if the Board chooses to retain this test, it be strengthened as follows:

1) Assign logarithmic values rather than a linear scale for the Environmental Resource Scores (ERS) for hazardous materials transport. EPA suggests that the logarithmic scale distinguishes situations with a significant impact from those which do not have a significant impact. (For example, using the logarithmic scale, a situation with more than 65,000 hazardous materials carloads per year would be recognized as significantly worse than a situation that had 50,000 carloads, and the 50,000 carload situation would be recognized as significantly worse than a 35,000 situation.)

2) Do not average the three individual Environmental Resource Scores to determine the final Environmental Resource Score. EPA was concerned that the impact of an individual value may be lost when averaging the three scores. EPA noted that the second and third columns of Table L-2 appeared to reflect the same impact. EPA recommended that the third column be eliminated because it decreased the accuracy of Environmental Resource Scores.

Response: SEA recently attended several meetings and participated in several telephone conferences with EPA to discuss the Board's statistical methodology for determining environmental justice impacts. During these meetings, SEA presented a detailed explanation of its multi-step analysis. SEA believes that following these discussions, EPA's concerns are not so much directed to the level of SEA's analysis and its overall environmental justice methodology as they are to SEA's failure, in EPA's view, to adequately explain all of the comprehensive analyses in the Draft EA. As SEA explained to EPA, SEA believes that its approach effectively identifies the minority and low-income populations that could experience disproportionately high and adverse environmental impacts as a result of the proposed Acquisition. SEA also believes its recommended mitigation addresses all potential significant environmental justice impacts. SEA notes that the only potential high and adverse environmental impacts of the proposed CN/IC Acquisition are related to hazardous materials transport, and SEA's recommended mitigation specifically addresses these potential impacts. Therefore, if the Board adopts the recommended mitigation

described in the Final EA, SEA believes that the proposed CN/IC Acquisition would not result in significant impacts, much less disproportionately high and adverse impacts on minority and low-income populations.

In this case, SEA conducted a detailed and reasonable analysis to identify environmental justice populations that, in the absence of mitigation, could experience high and adverse impacts. SEA conducted an extensive public outreach effort to involve these environmental justice communities in the environmental review process and to invite these communities to participate in the environmental review and development of mitigation. SEA believes that its analysis of potential impacts on environmental justice populations was fully adequate and provided ample opportunities for community participation. SEA further believes that its recommended mitigation will adequately address impacts on environmental justice populations.

In response to EPA's concerns about SEA's statistical approach, SEA believes that a linear scale is reasonable for assessing Environmental Resource Scores because it allows SEA to distinguish between progressively more significant impacts (e.g., 65,000 hazardous materials carloads per year vs. 50,000). SEA selected a linear scale for determining the level of impact because it is easier to administer and easier for the public to understand. SEA identified no basis for concluding that a logarithmic scale would produce results that are materially more accurate.

SEA also believes that it is reasonable to define an Environmental Resource Score for noise (without mitigation) as the average of two components, the predicted post-Acquisition noise level and the change in the noise level from pre-Acquisition to post-Acquisition. Considering both the increase in impact and the baseline allows the environmental justice analysis to be sensitive to pre-existing degradation in environmental justice communities. Further, SEA believes that it is reasonable to define an Environmental Resource Score for hazardous materials transport as the average of three components—the post-Acquisition number of carloads; the increase in hazardous materials transport; and the change, if any, in route designation. The inclusion of the third component is not the same as a mere increase in train traffic, nor does it detract from the accuracy of the Environmental Resource Score. To the contrary, it ensures that new Major Key Routes with a substantial increase in hazardous materials carloads (i.e., doubling of hazardous

materials carloads per year) would be scrutinized for disproportionate impacts (i.e., they will receive an Environmental Resource Score of at least 3.7).

Finally, it is reasonable to average components to produce a final Environmental Resource Score for each type of impact (e.g., noise, hazardous materials transport). Averaging is an accepted statistical technique that both prevents an outlying data point from unduly skewing results and allows communities with multiple medium-range impacts to score as highly as a community with just a single high impact. There is no basis for concluding that eliminating averaging would produce materially better results. In addition, averaging components to produce a single Environmental Resource Score for each type of impact makes the disproportionality assessment easier to administer and easier for the public to understand.

Comment: EPA commented that in any use of the chi-square test, it is important to provide complete documentation for all the steps of the statistical analysis. According to EPA, the structure of the frequency table, column and row headings, cell frequencies, obtained chi-square values, and critical chi-square values should all be provided. EPA stated that publication of the statistical results will allow the reader to determine the significance of the chi-square test.

Response: In response to EPA's request, Appendix A, "Technical Information," of the Final EA includes additional details about the statistical analysis.

Comment: EPA commented that based on the information SEA presented in the Draft EA, EPA did not fully understand whether the statistical test was measuring people or impact. EPA pointed out that the Draft EA included a second statistical test, the ratio of means test, but there was little explanation of what was actually being measured. EPA noted, for example, that it was unclear what the numerator and denominator represented. EPA stated that more supporting documentation was needed to address this.

Response: The chi-square test for disproportionality is an important part of SEA's environmental justice methodology. This test asks if there is a statistically significant deviation from an expected, random distribution of impacts. If so, then potential impacts may be disproportionately distributed. The chi-square test does not, however, test for the direction of the disproportionality. It may be that an environmental justice population would experience a lower degree of impacts, rather than a higher degree. Therefore, if the chi-square test finds disproportionality, SEA applies a "ratio of means" test to determine whether the disproportionality is a product of high and adverse impacts on an environmental justice population.

The "ratio of means" test calculates the relative magnitude of the potential impacts on environmental justice populations compared to the potential impacts on non-environmental justice populations. For this test, SEA calculated the average of the full range of each of the three individual Environmental Resource Scores and then divided that average for environmental justice populations by the average for

non-environmental justice populations.

$$\textit{Ratio of means} = \frac{\textit{ERS average for environmental justice populations}}{\textit{ERS average for non-environmental justice populations}}$$

A ratio of means test result greater than 1.0 indicates that the potential impacts on the environmental justice areas of potential effect are higher than the potential impacts on the non-environmental justice areas of potential effect. Therefore, the means ratio shows the relative magnitude of the entire spectrum of potential impacts on the environmental justice populations compared to the impacts on the non-environmental justice populations. It accounts for variations within the low to moderate and high to very high Environmental Resource Score categories. The means ratio statistic alone will not indicate disproportionately high and adverse effects because SEA applied it to the entire spectrum of Environmental Resource Scores.

Comment: EPA commented that SEA's method for defining areas of potential effect for each technical area was unclear, and EPA did not understand why the size of the areas of potential effect varied (400 feet for noise and 1,500 feet for hazardous materials transport). (See Draft EA, Volume 2, Appendix L, Table L-1, page L-3, "Areas of Potential Effect.")

Response: SEA developed the areas of potential effect identified in Table L-1 based on the maximum area potentially exposed to the Board's noise threshold of 65 dBA L_{dn}, which is 400 feet for an increase of up to eight trains per day. (See Appendix L, footnote 3, page L-4 of the Draft EA.) As described in the Applicants' Operating Plan (as corrected), no rail line segment would experience an increase in activity of eight trains per day or more. Therefore, SEA established 400 feet on either side of the rail line segment as a conservative standard for determining the area of potential effect for the environmental justice analysis.

SEA chose the 65 dBA L_{dn} noise contour because it offered a practical, uniform approach to identifying the communities that would experience the most substantial noise impacts or other localized effects such as traffic congestion, highway/rail at-grade crossing delays, visual intrusion, pedestrian and safety effects, and construction impacts associated with the proposed CN/IC Acquisition. SEA widened the area of potential effect from 400 to 1,500 feet for Major Key Routes during the recent Conrail Acquisition in response to public comments noting that hazardous releases may cover a broad geographic area and, therefore, decided to do the same thing for this case. By using the 1,500-foot definition for environmental justice analysis of hazardous materials, SEA attempted to strike a balance that recognizes the potentially wider area of impact but avoids assimilating environmental justice populations located close to the track (and most adversely affected by a release) into a group with characteristics that are closer to that of the entire census tract.

SEA also defined an area of potential effect for intermodal facilities and rail yards as 1 mile from the center of the facility or yard. (See Table L-1, Appendix L, Volume 2

of the Draft EA.) SEA did not identify any potential significant effects at rail yards or intermodal facilities; therefore, SEA determined there was no need to identify populations based on perimeter boundaries, as was done for the Conrail Acquisition.

Comment: EPA was concerned about the footnote on page 4-125 (Draft EA, Volume 1, Chapter 4.13, "Environmental Justice," Footnote No. 43), which discussed scaling demographic data for block groups that partially fall within an area of potential effect. This methodology assumed, EPA argued, that low-income and minority populations are evenly dispersed within a block group. While recognizing that assumptions must be made for determining the low-income population, EPA recommended using actual Census level block data to provide greater accuracy on the location of the minority population. EPA stated that when it compared Census data with the numbers in Attachment L-1, it found much higher numbers of minorities in the area of potential effect than indicated in Attachment L-1 (Draft EA, Volume 2, Appendix L, "Environmental Justice Analysis Methods and Results," Attachment L-1, "Data on Potentially Affected Populations Used in SEA's Environmental Justice Evaluations," page L-1-1).

Response: SEA believes that its approach to the Census data for determining affected environmental justice populations is reasonable and appropriate for this case. The smallest level at which both race and poverty data are available is the Census block group level. SEA selected block group data as the foundation of its analysis because it offers the advantage of containing both race and poverty data. SEA's statistical method relied on information from comparable geographic areas to statistically determine the disproportionality of effects.

During development of a statistical approach to determining environmental justice impacts during the Conrail proceeding, SEA initially shared EPA's concern that using the block group data and assuming even distribution of population characteristics (i.e., with regard to race, ethnic group, income, and density) across the block group geographic area could lead to underestimating the actual population within the area of potential effect. To determine whether this would be the case, SEA conducted extensive field investigations and determined that populations are generally consistent within a Census block group.

In the absence of specific evidence from EPA that more detailed Census information would provide refined analysis results and provide better information

for SEA's environmental review, SEA determined that its approach is reasonable and produced accurate results.

Comment: EPA agreed that the mitigation measures proposed for the environmental justice communities identified in the Draft EA are worthwhile and will improve emergency response. However, EPA was concerned that the proposed environmental justice mitigation measures do not address the increased risk due to the proposed activities in a preventive way nor do they compensate those communities that are disproportionately impacted. EPA encouraged the Board to work with the affected communities to develop a mitigation plan that addresses these two components.

Response: SEA disagrees that the recommended mitigation is not preventive. Compliance with current Association of American Railroads' guidelines for train and track safety would supplement existing Federal safety regulations and reduce the potential for derailments and spills. SEA's other recommended mitigation measures for these communities would improve emergency response capabilities and coordination with local agencies. To ensure that the Applicants provide mitigation in a timely manner, SEA also recommends that the Board require the Applicants to certify completion of these requirements within one year of any final written Board decision approving the proposed Acquisition.

SEA does not believe that the Acquisition would cause effects on environmental justice populations that would warrant compensation because SEA's recommended general mitigation addresses any potential hazardous materials transport impacts, and SEA's recommended environmental justice mitigation contains measures tailored to address the unique needs of affected minority and low-income populations. SEA believes that if the Board imposes SEA's recommended generally applicable and tailored mitigation, the proposed CN/IC Acquisition would not result in any disproportionately high and adverse impacts on minority and low-income populations.

SEA also notes that it conducted extensive outreach to potentially affected environmental justice populations to provide every opportunity to participate in developing a mitigation plan. SEA placed ads in local newspapers, submitted public service announcements to local radio stations, and sent written notification of the Draft EA and preliminary recommended mitigation to local government officials and community organizations.

Cumulative Effects

Comment: EPA acknowledged the Board's efforts to evaluate the potential cumulative impacts of the proposed CN/IC Acquisition in conjunction with the recent Conrail Acquisition, but raised the concern that SEA's use of threshold values may underestimate cumulative effects from multiple sources.

Response: As discussed above, SEA's thresholds for environmental analysis focus the

environmental analysis on those areas where the acquisition-related changes in rail activities would most likely result in significant environmental impacts. SEA's thresholds for analysis generally reflect increases in the number of trains per day and the increase in gross ton-miles of traffic. The use of thresholds is particularly important in multi-state mergers including thousands of miles of rail line and covering broad geographic areas.

In its environmental review, SEA considered potential environmental effects on various resources such as air and noise. When separate activities, such as switching activity at rail yards and increased train traffic over a line segment, would affect the same resource (i.e., air quality), SEA evaluated the potential cumulative effects. After evaluating cumulative effects in this manner, SEA determined that no significant cumulative effects would result from the proposed CN/IC Acquisition.

Comment: EPA noted that the Draft EA provided information regarding hazardous materials incidents by state for each state included in the CN/IC system. According to the historical data, 75 percent of the hazardous materials incidents have occurred in the IC portion of the system, and a substantial portion of the historical incidents have occurred in Illinois. EPA suggested that the potential for more hazardous materials incidences is high because a number of rail line segments on the IC portion of the system would experience enough increased hazardous materials activity to become Major Key Routes (rail line segments 175, 187, 190, and 205, for example). Many of these rail line segments are near the threshold stipulated for increased freight activity (eight trains per day or more increase). EPA stated that the cumulative effect of increased freight activity, including the associated risks of Major Key Route hazardous materials activity, should be evaluated in the historical context of hazardous materials incidents occurring over these rail line segments.

Response: In conducting a thorough evaluation of hazardous materials transportation, SEA considered the history, quantity, and projected increase in the Applicants' hazardous materials shipments. SEA has recommended appropriate mitigation measures for the segments in Illinois with increased hazardous materials traffic. Further, SEA considered the cumulative effects of increased freight activity and hazardous material activity in determining the likelihood of a release from a main line accident because SEA's accident prediction formulas include both increased traffic and the risk of a train accident.

In response to EPA's concerns about Illinois, EPA is correct that 75 percent of the historical hazardous materials incidents occurred on the IC system. Of this 75 percent (122 IC releases during the last five years), 36 of the incidents (29.5 percent occurred in Illinois. However, the percentages for IC and for Illinois are consistent with the relative size of the IC system (IC and CCP) compared to the CN railroads (DWP and GTW). Table 2-2 compares the size of each system and the number of hazardous materials release incidents. This table shows fewer incidents have occurred per mile and per gross ton-mile on the IC system in Illinois than on the rest of the IC system or on the CN railroads. Therefore, SEA determined that the

historical incidents on the IC system in Illinois were not unusually high.

TABLE 2-2
HAZARDOUS MATERIALS RELEASE INCIDENTS BY RAILROAD

Carrier	Location	Incidents	Length (miles)	Million Gross Ton-Miles (GTM) per Year	Incidents per Mile	Incidents per Million GTM
IC and CCP	Illinois	36	1,175	955	0.031	0.038
IC and CCP	System wide, except Illinois	88	1,869	786	0.047	0.112
IC and CCP	System wide	124	3,044	1,740	0.041	0.071
CN (DWP & GTW)	System wide	40	815	913	0.049	0.044

Source: Draft EA, Appendix C, "Safety Analysis Methods and Results," Final EA Appendix A, "Technical Information," "CN/IC Acquisition Rail Line Segment Master Table."

SEA also considered the types of incidents that occur on the IC system in Illinois. Of particular concern are releases that result from accidents or derailments, as these releases are typically larger than spills or releases from non-accident causes (i.e., human error or package failures). However, as shown in the Draft EA, of the 122 releases that occurred on the IC system, only 20 resulted from derailments, and four of these reported incidents did not involve releases.[16]

Furthermore, as shown on Table 2-3, "Predicted Hazardous Materials Releases in Illinois," SEA determined the predicted post-Acquisition number of releases due to accidents and collisions in rail yards and on main lines in Illinois.[17] Table 2-3 shows that the total number of predicted releases along main lines and in rail yards would be less than the number of releases over the past five years.

SEA believes that the predicted yard and mainline hazardous materials accidents or derailments (approximately 3.4 releases in the next five years) is comparable to IC's previous five-year history in Illinois (5.9 releases during the last five years). This information indicates that the potential for more serious hazardous materials incidents following the proposed CN/IC Acquisition is not significantly greater than

16 Draft EA, Attachment C-3, Table 4, "Quantity of Hazardous Materials Released by Incident Cause as Reported by CN and IC - June 1993 to May 1998."

17 SEA based its analysis on the predicted post-Acquisition freight accident rate and the historical record of quantities and cause of materials released for yards and main lines. See the Draft EA, Attachment C-8, "Rail Yard Hazardous Materials Release Results," and Attachment C-7, "Mainline Hazardous Materials Release Results."

the pre-Acquisition record of incidents on the IC portion of the system.

TABLE 2-3
PREDICTED HAZARDOUS MATERIALS RELEASES IN ILLINOIS

Predicted Release Frequency	Per Year	Per Five Years
Total Predicted Main Line Hazardous Materials Releases	0.56	2.8
Total Predicted Rail Yard Releases	0.12	0.6
Total Predicted Releases in Illinois (Post-Acquisition)	0.68	3.4
Total Historical Derailment Releases over Five Years (June 1993 to May 1998)	1.18	5.9

Comment: EPA commented that in addition to the ten Key Routes that would become Major Key Routes as a result of the proposed Acquisition, SEA should consider the cumulative effects on rail line segments that transport 20,000 or more carloads per year. EPA suggested that this evaluation should be made irrespective of how much of an increase over the existing condition the 20,000+ carloads represents. EPA added that the cumulative impacts due to passenger rail activity, freight rail traffic, and other factors should be considered in addition to hazardous materials effects.

Response: SEA's analysis of the potential impacts on freight rail safety, passenger rail safety, and hazardous materials transport safety properly considered the cumulative effects of increased rail activity from the proposed CN/IC Acquisition. For example, for the hazardous materials transport analysis, SEA used historical accident and spill release data and projected freight train traffic changes to estimate the change in the likelihood of an accident on a rail line segment. SEA's analysis of passenger rail safety considered the potential risk of an accident involving freight trains.

EPA suggested that any hazardous materials transport activity exceeding 20,000 carloads per year could warrant mitigation. However, to be consistent with the Board's practice of mitigating only those impacts that result from the proposed transaction, SEA considered the increase in hazardous materials transport resulting from the proposed CN/IC Acquisition as part of its determination of appropriate mitigation.

SEA considers existing hazardous materials traffic as the existing environment against which SEA compares the incremental change in hazardous materials rail traffic. SEA also notes that existing DOT safety regulations and other Federal emergency response procedures address potential safety risks of existing hazardous materials transport. SEA's recommended mitigation is intended to provide a supplemental measure of safety for the near-term incremental increase in hazardous materials transport resulting form the proposed CN/IC Acquisition.

2.2.5 State Agency: Illinois Environmental Protection Agency

General

Comment: The Illinois Environmental Protection Agency wrote to notify SEA that, since it has no noise control authority in the area of concern, it would not review the proposed CN/IC Acquisition project.

Response: SEA acknowledges the Illinois Environmental Protection Agency's comment.

2.2.6 State Agency: Michigan Department of Environmental Quality

The Air Quality Division of the Michigan Department of Environmental Quality (DEQ) provided comments on the summary county status assigned to three counties in Southeast Michigan.

Air Quality

Comment: DEQ clarified the air quality attainment status for three counties in Southeast Michigan. DEQ pointed out that the information in the Draft EA, Volume 1, Chapter 4, Figure 4-9, page 4-95, is somewhat confusing because SEA attempted to represent the attainment status for multiple pollutants as a single classification. DEQ states that Figure 4-9, "Michigan Rail Yards and Intermodal Facilities that Exceed Board Thresholds for Environmental Analysis," should be modified to reflect that Genesee County is now in attainment for ozone. Although EPA revoked the 1-hour ozone standard for the remaining counties in Southeast Michigan in 1998, these counties are still considered to have maintenance status. Additionally, a portion of Macomb County is nonattainment for carbon monoxide (CO).

DEQ stated that the information in Volume 2, Appendix F, Attachment F-1, "Air Quality Attainment Status by County," is correct, with the exception of Genesee County. However, DEQ does not understand how SEA determined the summary county status. When comparing Oakland and Macomb counties, DEQ noted that both counties have the same nonattainment area classification, but they have different Summary County Status.

Response: SEA thanks Michigan DEQ for its comments clarifying the attainment status for counties in Southeast Michigan. SEA revised Figure 4-7, "Attainment Status for Affected Counties," and Figure 4-9, "Michigan Rail Yards and Intermodal Facilities that Exceed Board Thresholds for Environmental Analysis," and included them in Appendix A, "Technical Information," of the Final EA. SEA has considered Michigan DEQ's comment regarding the different summary county status for Oakland and Macomb counties despite their identical area classifications. SEA determined that the summary county status is nonattainment for Oakland County because the proposed CN and IC railroad activities would occur within the nonattainment portion of the county. The status of Macomb County is in attainment because the proposed CN and IC railroad activities would occur outside of the maintenance or nonattainment portions of the county.

2.2.7 Local and County Government: City of Carbondale, Illinois

The City of Carbondale, located in Southern Illinois, commented on three issues:

- Hazardous materials and environmental justice.
- Emergency response.
- Air quality.

Hazardous Materials and Environmental Justice

Comment: The City of Carbondale expressed strong opposition to the potential increase in the amount of hazardous materials transported through the community. The City recommended that the Board impose the following additional mitigation measures if it approves the transaction.

1. The railroad shall be required to cooperate with each community with a Key Route or Major Key Route to identify additional equipment needed locally to respond to a hazardous materials incident related to the railroad, and the railroad shall then purchase and provide that equipment to the community.

2. The railroad shall be required to limit within cities and areas of minority justice populations key train speeds to 10 miles per hour (mph) slower than permitted for non-key trains. This is consistent with the requirement that key trains are restricted to 50 mph where non-key trains are permitted to operate at 60 mph.

3. The railroad shall cooperate with the City to provide an additional railroad crossing between northeast and northwest Carbondale. The cooperation shall entail contributing the cost of building and maintaining railroad crossing gates or crossing structures and joining the City in a petition to the Illinois Commerce Commission to permit the rail crossing.

   Residents of the predominantly low-income, minority northeast portion of Carbondale have long complained about poor access to their neighborhood. One particular complaint has been a lack of access for emergency vehicles and the hospital if the railroad crossings are blocked. If there were a hazardous materials incident that blocked the rail crossing in the south portion of the City, which blocked the rail crossings, another rail crossing in the north part of the City would be important in case evacuation was necessary or access was needed by emergency vehicles.

4. The railroad shall be required to work with each community with a Key Route or Major Key Route to identify the impact of a hazardous materials incident associated with the railroad emergency shelter facilities in each community. The railroad shall provide for each community those items needed to prepare the emergency shelters to address hazardous materials

incidents that may result from the presence of the railroad.

5. The railroad shall install and maintain wind direction indicators at each rail crossing in each community with a Key Route or Major Key Route. These wind direction indicators will enable the public to know which way to go to avoid windborne hazardous materials released from an incident on the railroad.

6. The railroad shall be required to accept full financial responsibility for all damage to property, economic losses, and medical expenses associated with hazardous materials incidents resulting from the railroad.

Response: In the Draft EA, SEA determined that rail line segment 380, Carbondale-to-Cairo, would be a Major Key Route under the proposed CN/IC rail system. Because the City of Carbondale is located along this segment, any potential increase in risk to the township would be addressed by SEA's recommended condition for Major Key Routes. Specifically, the Board would require the Applicants to:

- Comply with the current AAR key train guidelines, which include a maximum operating speed of 50 mph, and full train inspections whenever a train is stopped by an emergency application of the train air brake or following a report of a defect by a wayside defect detector.

- Distribute copies of their hazardous materials emergency response plans to local emergency response organizations.

- Work with local emergency response organizations to develop local hazardous materials emergency response plans.

- Conduct voluntary simulation emergency response drills or training sessions for local emergency response organizations.

- Provide dedicated toll-free telephone numbers to the emergency response organizations serving Carbondale to provide access to CN and IC dispatch centers 24 hours per day, seven days per week.

In addition, because SEA determined that, without mitigation, environmental justice populations residing in Carbondale could bear a disproportionately high and adverse impact resulting from potential significant increases in hazardous materials transport, SEA recommends that the Board require the Applicants to perform the following for the Carbondale community:

- Tailor the emergency response plans to the special needs of minority and low-income communities.

- Provide Operation Respond software and any necessary training at the local emergency response center serving minority and low-income populations.

- Fund participation in a training session at AAR's Transportation Technology Center for a total of two representatives from Carbondale's emergency response organizations.

SEA believes that this mitigation adequately addresses the potential significant adverse effect of increased hazardous materials transport in the City of Carbondale from the proposed CN/IC Acquisition.

SEA reviewed the City's requests for six additional conditions related to hazardous materials transport and determined that several requests are already incorporated in SEA's recommended conditions. SEA determined that the City's remaining requests are neither warranted nor appropriate based on the reasons discussed below.

With regard to the City's request that SEA require the Applicants to pay for additional equipment and resources beyond their existing response programs, SEA believes that the recommended coordination with local emergency response officials would assist Carbondale in identifying the available resources to respond to a hazardous materials emergency. Although this coordination may include identifying the need for additional equipment, emergency response shelters, or wind direction indicators, SEA does not believe that the increase in hazardous materials transport through Carbondale warrants requiring the Applicants to purchase the equipment because the recommended mitigation would reduce increased risk resulting from the proposed CN/IC Acquisition to the point of no significant effect.

In response to the City of Carbondale's request to limit speeds for trains carrying hazardous materials to 10 mph slower than permitted for a non-key train, SEA defers to FRA regulations at CFR Part 213 regarding safe train speed. (FRA is the Federal government's primary rail safety agency.) In developing speed limits, FRA considers track geometry, super-elevation, and other physical conditions to identify optimal, safe speeds. For example, trains moving over curves lower than track design speed will place excessive force on the inner rail and increase the probability of wheel climb and consequent derailment. Based on these characteristics, FRA designates track by "Class" and sets the speed limit. Currently, the Applicants' track in the City of Carbondale is Class 4, for which FRA has established a speed limit of 60 mph. SEA's recommended mitigation for the rail line segment through Carbondale includes a maximum speed limit of 50 mph for key trains (i.e., trains that carry over a minimum amount of hazardous materials). This speed limit will provide an extra measure of safety over what FRA has deemed safe for Class 4 track. SEA notes that the IC timetable speed through Carbondale is currently 20 mph, and the Applicants plan to increase the speed to 40 mph, which would be slower than the 60 mph speed limit FRA designates and the 50 mph speed limit SEA recommends for this segment.

In response to the City of Carbondale's request for assistance in building and maintaining a railroad crossing between northeast and northwest Carbondale, SEA reviewed conditions at the crossing and the proximity of other grade-separated

crossings that connect northeast and northwest Carbondale. The location of the City's proposed crossing is through Carbondale Yard. A highway/rail at-grade crossing would not be appropriate at this location because yard activities involve slow train movements with frequent starts and stops. However, the Applicants state that they will work with the City to explore a grade-separated crossing, provided that there is no expectation that the railroad will be required to fund the construction. The Applicants note that the bidding process for construction of an additional grade-separated (underpass) crossing at Mill Street, which is approximately 1 mile south of Carbondale Yard, is planned for the spring of 1999. IC is contributing funds for construction of this underpass. In addition, IC plans, in consultation with the City's mayor, to upgrade signaling on one of the double-tracked lines through Carbondale. After the upgrade, the maximum train speed could be increased from 20 mph to 40 mph, thereby reducing delays at highway/rail at-grade crossings. SEA considered the location of various alternative highway/rail at-grade crossings, the potential for reducing traffic delay by upgrading railroad signals, and the increased potential traffic delay resulting from the proposed Acquisition and determined that the proposed CN/IC Acquisition would not significantly affect emergency vehicle response times. Thus, SEA cannot support the City of Carbondale's request to recommend that the Board require the Applicants to make financial contributions to a new highway/rail at-grade crossing. SEA encourages the Applicants and the community to work together through the state highway planning process to identify funds to accomplish the City of Carbondale's objectives.

In considering the City of Carbondale's request that CN and IC accept full financial responsibility for damages associated with hazardous materials incidents, SEA reviewed the existing laws that outline the Applicants' responsibilities in the event of a hazardous material release. Based on its analysis, SEA determined that state law and the Federal statutes, such as CERCLA and Resource Conservation and Recovery Act (RCRA), define the Applicants' legal liability and the recourse available to the City of Carbondale and its citizens. SEA does not believe that it should recommend the City of Carbondale's approach because it would essentially preempt or modify state or Federal law.

Emergency Response

Comment: The City of Carbondale requested that CN and IC cooperate in providing an additional highway/rail at-grade crossing between northeast and northwest Carbondale. This additional highway/rail at-grade crossing would provide emergency response vehicles with access to the north part of the City that would otherwise be denied if a hazardous materials incident in the south part of the City blocked the existing crossing.

Response: In response to the City's comment, SEA calculated the likelihood of the release of hazardous materials per mile on both line segments into and from Carbondale. SEA determined that the predicted release rate would be greater than one release every 1,000 years. (See Attachment C-7, "Mainline Hazardous Materials Release

Results," in the Draft EA.) Thus, the probability of an incident that would prevent emergency response vehicles with access to the north part of Carbondale is very low. SEA also reviewed the location of the proposed crossing and the proximity of other separated highway/rail at-grade crossings that connect northeast and northwest Carbondale.

Based on its investigations, SEA cannot support the City's request that the Board require the Applicants to make financial contributions for a new highway/rail at-grade crossing. SEA encourages the Applicants and the community to work together through the state highway planning process to identify funds to accomplish the City of Carbondale's goal of developing an additional highway/rail at-grade crossing.

Air Quality

Comment: The City of Carbondale asked whether the following areas should have been included in the list of Prevention of Significant Deterioration (PSD) Class I areas:

- Crab Orchard National Wildlife Refuge.
- Panther Den Wilderness Area (located in the Crab Orchard National Wildlife Refuge).
- Shawnee National Forest.

These areas are located within 10 miles of the IC rail line, east and southeast of Carbondale, Illinois. (See Draft EA, Vol. 1, Chapter 4, "Environmental Consequences—Operational Changes," Section 4.11.1, page 4-81, "Air Quality—Background.")

Response: The 1977 Clean Air Act Amendments defines PSD Class 1 areas, and the National Park Service develops an inventory of national parks and forests, wilderness areas, and wildlife refuges that compose the PSD Class 1 List. During preparation of the Final EA, SEA re-examined the Park Service inventory to verify that these areas are not included.

In its analysis of air quality effects, SEA determined that none of the counties with proposed increases in rail activities exceeding SEA's thresholds would experience significant adverse effects. Because none of the rail line segments that pass through Carbondale would exceed SEA's threshold for air quality analysis, SEA determined that no potential for significant adverse air quality effects exists at the parks of concern.

2.2.8 Local and County Government: City of Champaign, Illinois

The City of Champaign, located in Southern Illinois, commented that although there would be some negative impacts, as described in the Draft EA, SEA's recommended mitigation measures seem to be

appropriate. Although the City believes that the environmental assessment process does not address some issues directly, the City believes that open communication between adjacent communities and railroad officials could address these issues. The City noted that the IC track is centrally located in Champaign, and that the railroad is located above virtually all of the City's major east-west corridors.

The City of Champaign commented on the following:

- Hazardous materials.
- Intercity passenger rail operations.
- Air quality.
- Maintenance.

Hazardous Materials

Comment: The City of Champaign stated that the issue of hazardous materials transport is of foremost importance to the City because the Draft EA identified the City as at risk from substantially increased levels of hazardous materials transport. The Champaign Fire Department, the agency responsible for any hazardous material incidents, indicated that the proposed mitigation measures outlined in the Draft EA should allow for the successful management of this increased level of transport. In addition, officials noted that a good working relationship has existed

between the City of Champaign and IC during any past incident of this nature. The City designated representatives for training and emergency response issues.

Response: SEA appreciates the City's review of the Draft EA and its concurrence with the hazardous materials transport conditions. SEA has provided the Applicants with the Fire Department contacts designated in the City of Champaign's comment letter.

Intercity Passenger Rail Operations

Comment: The City of Champaign stated that Amtrak passenger service to and through the City is an integral service for the City's citizens and visitors. The City houses the University of Illinois' main campus and is home to nearly 40,000 students.

The City requested that the impact of the increased levels of freight traffic and the longer trains that will be in service once the proposed Acquisition is complete should continue to be monitored so that quality passenger service is maintained. On-time passenger rail performance is the best benchmark for determining whether the service will continue to be a viable means of travel compared with auto and air alternatives. The City notes that the railroad continues to own sufficient right-of-way to expand the number of tracks operating in the City of Champaign, if needed.

Response: SEA notes that the Applicants are already bound by the Rail Passenger Service Act of 1970 which requires Amtrak passenger operations to take precedence over other types of traffic moving over the rail line. The Applicants, therefore, must consider this when either scheduling operations or during the day-to-day dispatching of their lines. The Applicants' contractual obligations include:

1. Monitoring on-time performance for the entire route.

2. In the event that on-time performance is deficient, taking steps to ensure that on-time performance improves. If necessary, such steps could include the expansion of the track system mentioned in the City's letter.

SEA investigated Amtrak's performance history in the Champaign area and notes that Amtrak has a record of on-time performance.

Air Quality

Comment: The City commented that according to the Draft EA, the City may become a nonattainment area for National Ambient Air Quality Standards by the time the proposed CN/IC Acquisition is implemented if the Board approves the transaction. However, as noted in the Draft EA, beginning in the year 2000, all

locomotives will be required to comply with EPA's reduced locomotive emissions standard of September 1997.

Response: SEA concurs with the City of Champaign's analysis of potential air quality effects related to the proposed CN/IC Acquisition. Based on current air quality standards, SEA did not identify any potential significant adverse impacts that warrant mitigation.

Maintenance

Comment: The City of Champaign stated that the Draft EA did not specifically address the condition of railroad bridges. Last year, the City identified several areas where concrete falling from railroad bridges could damage vehicles passing under the bridges. The City performed an initial analysis to determine whether significant repairs were needed and determined that some repairs should be undertaken. IC indicated that it was conducting its own study to determine whether the bridges were safe. However, the railroad has not shared the results of its analysis with the City.

Response: SEA requested that the Applicants provide the City with the results of their bridge inspections and safety analysis. IC conducts formal inspections on all railroad bridges every year, and it conducts additional inspections in the spring on concrete bridges that are known to be susceptible to spalling (the breaking away of surface concrete, as observed in Champaign) during freeze-thaw cycles. If the railroad inspector observes such spalling, the loosened concrete is removed. IC is testing a new technique that allows a waterproofing compound to be injected through the track bed to the concrete surface of the bridge. If this technique proves successful, IC plans to apply the process on other bridges that are susceptible to spalling. The Applicants indicated that they have contacted the City and will follow up to discuss the spalling concrete issue further. SEA notes that these concerns address a pre-existing condition and, as such, are not within the scope of the environmental analysis for the proposed CN/IC Acquisition.

2.2.9 Local and County Government: City of Chicago, Illinois

In a filing dated February 17, 1999, the City of Chicago notified the Board that it had reached an understanding with the Applicants regarding the City's concerns about the impact of the proposed Acquisition. In its filing, the City withdrew its October 27, 1998 filing, which was a Comment and Request for Conditions, and its December 11, 1998 comments on the Draft EA. With its February 17, 1999 filing, the City gave notice that it supports the proposed CN/IC Acquisition.

SEA notes that the City of Chicago raised several issues regarding the Applicants' Operating Plan using information from filings presented by other railroads. SEA took a "hard look" at the

City's concerns and considered them in making its final mitigation recommendations. The City of Chicago will remain a Party of Record in this proceeding.

2.2.10 Local and County Government: Makanda Township Fire Department, Illinois

The Fire Department of Makanda Township, located in Southern Illinois, commented on the following issues:

- Hazardous materials.
- Emergency vehicle response.
- Traffic delay at highway/rail at-grade crossings.

Hazardous Materials

Comment: The Fire Department commented that the 118 percent increase in hazardous materials transport between Cairo and Carbondale, Illinois will have a potentially serious effect upon Makanda Township due to the community's proximity to the rail line.

The rail line divides the township in half, making 90 percent of its population, including two school buildings, within 1.5 miles of the rail line. The Fire Department recommended the following mitigation measures to address the potential increase in hazardous materials transport:

1. Assistance to Makanda Township Fire Departments in identifying training and equipment needs so as to appropriately mitigate a hazardous materials incident.

2. Funding assistance to Makanda Township Fire Department for the purchase of mitigation equipment and training of all fire department personnel so as to safely deal with a hazardous materials incident.

3. Significant improvements to the IC at-grade crossing at Boskydell Road.

4. A 40 mph speed limit on all hazardous materials trains traveling through Makanda Township and strict enforcement by railroad authorities.

5. An emergency crisis center, staffed by railroad personnel on a 24-hour basis, with an 800 telephone number to assist local fire departments and hazardous materials teams in identifying hazardous materials being transported. The crisis center should have conference calling capability with such agencies as CHEMTREC, INFOTRAC, or CHEM-TEL for advice on mitigating the incident.

Response: In the Draft EA, SEA determined that segment 380 from Cairo-to-Carbondale would be a Major Key Route under the proposed rail system. Because Makanda Township is located along this segment, SEA's recommended mitigation for Major Key Routes would address any potential increase in risk to the Township. Specifically, the Board would require the Applicants to:

- Comply with the current AAR key train guidelines, which include a maximum operating speed of 50 mph and full train inspections whenever a train is stopped by an emergency application of the train air brake or following a report of a defect by a wayside defect detector.

- Distribute copies of their hazardous materials emergency response plans to local emergency response organizations.

- Work with local emergency response organizations to develop local hazardous materials emergency response plans.

- Conduct voluntary simulation emergency response drills or training sessions for local emergency response organizations.

- Provide dedicated toll-free telephone numbers to the emergency response organizations serving Makanda to provide access to CN and IC dispatch centers 24 hours per day, seven days per week.

SEA anticipates that these mitigation measures for Makanda Township would result in close coordination between the Applicants and the Township in preparing for the unlikely event of a hazardous materials release. As part of this coordination, SEA anticipates that the Applicants and the Township will work together to identify the Township's training and equipment needs.

Regarding the Fire Department's request that the Applicants be required to fund this equipment and training, SEA believes that its recommended mitigation would offset the increased potential risk resulting from the proposed CN/IC Acquisition to the point of no significant adverse effect. SEA does not believe that Applicant funding of local emergency response personnel or equipment is warranted. In the unlikely event of a release, the Applicants would lead the effort to clear damaged rail equipment. Generally, the hazardous materials shipper would provide assistance with managing the chemical release, and the local emergency responders would lead any evacuation effort necessary.

In response to the Fire Department's request for a 40 mph speed limit for trains carrying hazardous materials, SEA notes that the actual IC timetable speed in Makanda is 40 mph. SEA also defers to FRA regulations at CFR Part 213 regarding safe train speed. FRA is the Federal government's primary rail safety agency. In developing speed limits, FRA considers track geometry, super-elevation, and other physical conditions to identify optimal, safe speeds. For example, trains moving over curves slower than track design speed will place excessive force on the inner rail and

increase the probability of wheel climb and consequent derailment. Based on these characteristics, FRA designates track by "Class" and sets the speed limit. Currently, in Makanda, the Applicants' track is Class 4, for which FRA has established a speed limit of 60 mph. SEA's recommended mitigation for the rail line segment through Makanda includes a maximum speed limit (to 50 mph) for key trains (i.e., trains that carry over a minimum amount of hazardous materials). SEA's recommended mitigation will provide an extra measure of safety over what FRA deems safe for Class 4 track. SEA notes that the Applicants would be operating at the speed requested by Makanda (40 mph), which is less than the 60 mph speed FRA designates and the 50 mph speed SEA recommends for the segment.

Emergency Vehicle Response and Traffic Delay at Highway/Rail At-grade Crossings

Comment: The Makanda Township Fire Department commented that the average traffic increase of 3.7 trains per day and average train length increase of 11 percent would potentially create delays at highway/rail at-grade crossings and cause delayed fire apparatus response. Specifically, the Fire Department pointed out that Boskydell Road, which crosses a seriously deteriorated IC crossing, is the major access road from the fire station to the east side of the fire jurisdiction. The Fire Department requested assistance from both the Federal government and the Applicants in making significant improvements to the seriously deteriorated Boskydell Road highway/rail at-grade crossing to address its emergency response concern.

Response: SEA conducted additional analysis in response to the Fire Department's comment that the Boskydell Road highway/rail at-grade crossing requires significant improvement to reduce vehicular delay. SEA determined that the overall increase in train traffic would not substantially contribute to vehicular delay. Based on Makanda's 40 mph train speed and an average train length increase of 800 feet, SEA determined that the change in potential vehicle delay would be approximately 13 seconds per train, which SEA considers negligible. SEA also identified an available grade-separated (overhead) crossing that is 2 miles north of the Boskydell Road highway/rail at-grade crossing at Pleasant Hill Road.

The Applicants contacted the Township's Fire Department to discuss the Boskydell Road crossing and other issues. The Applicants inspected that crossing and determined that the rails have sunk slightly below the profile of the road surface. The Applicants suggested that the City mill the asphalt at the approaches to the crossing to level the crossing surface.

2.2.11 Local and County Government: Village of Matteson, Illinois

The Village of Matteson, Illinois, commented on the proposed increases in hazardous materials transport.

Hazardous Materials Transport

Comment: The Village of Matteson commented that the estimated 104 percent increase in hazardous materials transported through the community is an unfair risk for its community to shoulder. The Village recommended the following mitigation measures for hazardous materials transported through the community if the Acquisition is approved over its objection:

1. Limit the speeds of key freight trains within its fire protection area to a maximum of 10 mph. The Village will be drafting an ordinance limiting the speed of freight trains to 10 mph while in transit through its Fire Protection Area.

2. Use rail defect detection cars to inspect main track and sidings or perform an equivalent level of inspection no less than once each quarter.

3. Use track-geometry inspection cars to inspect main track and sidings or perform an equivalent level of inspection no less than once each quarter. The mitigation steps include:

   - Adhere to existing “Key Train” guidelines.
   - Provide toll-free telephone numbers to the Matteson Fire Department.
   - Distribute a hazardous materials response plan to all levels of local government.
   - Work with the Village of Matteson to develop a local Incident-Specific Hazardous Materials Emergency Response Plan.
   - Implement a simulation emergency response drill with the Matteson Fire Department.
   - Provide Operation Respond software and any necessary training to the Matteson Fire Department and local hazardous materials team annually.
   - Fund a training session for two representatives of the Matteson Fire Department.

Response: In the Draft EA, SEA determined that segment 187, Matteson-to-Kankakee, would be a Major Key Route under the proposed CN/IC rail system. Because the Village

of Matteson is located along this segment, SEA's recommended condition for Major Key Routes would mitigate any potential increase in risk to the Village. Specifically, SEA recommends that the Board require the Applicants to:

- Comply with the current AAR key train guidelines, which include a maximum operating speed of 50 mph and full train inspections whenever a train is stopped by an emergency application of the train air brake or following a report of a defect by a wayside defect detector.

- Distribute copies of their hazardous materials emergency response plans to local emergency response organizations.

- Work with local emergency response organizations to develop local hazardous materials emergency response plans.

- Conduct voluntary simulation emergency response drills or training sessions for local emergency response organizations.

- Provide dedicated toll-free telephone numbers to the emergency response organizations serving Matteson to provide access to CN and IC dispatch centers 24 hours per day, seven days per week.

SEA believes that this mitigation adequately addresses most of the Village of Matteson's requests for hazardous material safety conditions; the Village's other concerns are discussed below.

SEA considered the Village of Matteson's request to require the Applicants to limit train speeds to 10 mph, inspect main track and sidings for rail defects quarterly, and inspect the geometry of the main track quarterly as preventive measures. SEA does not believe that the proposed Acquisition warrants these steps for several reasons as discussed in the following paragraphs.

In response to the Village of Matteson's request to limit speeds for trains carrying hazardous materials to 10 mph, SEA defers to FRA regulations at CFR Part 213 regarding safe train speed. FRA is the Federal government's primary rail safety agency. In developing speed limits, FRA considers track geometry, super-elevation, and other physical conditions to identify optimal safe speeds. For example, trains moving over curves slower than track design speed will place excessive force on the inner rail and increase the probability of wheel climb and consequent derailment. Based on these characteristics, FRA designates track by "Class" and sets the speed limit. The Applicants' track in Matteson is Class 4, for which FRA has a speed limit of 60 mph. The IC timetable speed through Matteson is 50 mph on one of the double-main tracks and 40 mph on the other. SEA's recommended mitigation for the rail line segment through Matteson includes a maximum speed limit to 50 mph for key trains (i.e., trains that carry over a minimum amount of hazardous materials). This will provide an extra measure of safety over what FRA deems safe for Class 4 track. SEA believes that limiting train speeds to 10 mph could increase rail

congestion without a commensurate improvement in safety. Congestion increases the risk of accidents due to human error and leaves hazardous materials in locations for longer periods. SEA concurs with FRA speed limits and believes its recommended mitigation in the Draft EA provides the safety and protection that the Village of Matteson seeks.

In response to the Village's comment recommending the use of rail defect detection and track-geometry cars to inspect track quarterly or an equivalent level of inspection, SEA defers to FRA standards. FRA requires internal inspection of Class 4 rail track at least every 40 million gross tons of traffic that the track carries or once a year, whichever occurs first. SEA notes that FRA has recently implemented this value after researching the causes of rail defects. FRA research showed that the initiation of rail defects generally correlates to the level of rail traffic rather than the passing of time and conducting more frequent inspections is both redundant and an unproductive use of safety dollars. Under FRA regulations, most tracks in high-volume service must also be inspected visually for geometry defects twice per week. Visual inspections may be even more effective than inspection cars because human inspectors can identify problems other than just geometry defects. Qualified track inspectors look specifically for geometry defects and examine tie conditions, ballast and subballast conditions, drainage conditions, and other structural elements. SEA believes that the FRA-required visual and internal defect inspections sufficiently address the potential risks associated with rail and track defects.

In addition, the Applicants report that CN owns and operates a track geometry car. Their standard operating procedures call for the car's use for inspections twice per year on Class 4, 5, and 6 track; twice per year on Class 1, 2, and 3 track that support more than 25 million gross tons per year; and once per year on the other track. In practice, CN uses the track geometry car for track inspection three to four times per year on the main line and one to three times per year on less traveled routes. CN contracts its rail flaw detection program to a third party who performs three to five inspections per year on the main line and one to three inspections per year on less traveled routes. As the Applicants state in both their Operating Plan and the Safety Integration Plan, they believe sharing each company's best practices, including track engineering and maintenance, would be a key benefit of the proposed CN/IC Acquisition. CN and IC plan to consolidate their rail flaw detection programs and share use of the track geometry car on both systems.

SEA also considered the Village of Matteson's request that SEA recommend the Board require the Applicants to provide Operation Respond software, necessary training for the Matteson Fire Department, and provide funds for two Village representatives to attend training at AAR's Transportation Technology Center in Pueblo, Colorado. SEA developed this mitigation to address the unique characteristics of environmental justice populations in other communities. However, SEA believes its previously recommended mitigation for the rail line segment through the Village of Matteson sufficiently addresses the potential hazardous materials impacts associated with the proposed CN/IC Acquisition. Therefore, it does not recommend this environmental justice mitigation for the Village, which does not have an environmental justice population in the area of potential effect.

2.2.12 Local and County Government: City of New Orleans, Louisiana

The Mayor of the City of New Orleans, Louisiana commented on a general environmental concern and hazardous materials transport.

General

Comment: The Mayor requested that the Applicants maintain their property within Orleans Parish and, specifically, keep the grass mowed and all property free of litter and debris.

Response: SEA's environmental review considered the Acquisition-related changes in rail activities, which do not include maintaining the Applicants' right-of-way. SEA forwarded the City of New Orleans' request to the Applicants, and SEA encourages the Applicants and the City to work together to address local maintenance issues.

Hazardous Materials Transport

Comment: The Mayor requested that the Applicants work with the City's emergency response team and state officials to develop a Hazardous Materials Emergency Response Plan.

Response: SEA considered the Mayor's request that the Applicants work with local emergency response and state officials to develop a Hazardous Materials Emergency Response Plan for the City of New Orleans. DOT and FRA provide strict regulations for the transport of hazardous materials by rail. In addition to these legally binding Federal regulations, CN voluntarily plays a key role in TransCAER®, an information-training program for communities through which dangerous goods are transported.[18] SEA has forwarded the Mayor's request for assistance in developing a Hazardous Materials Emergency Response Plan to CN and encourages the City and the Applicants to coordinate this effort.

---

[18] Further information on the TransCAER® program is found at the following website: *http://www.cn.ca/english/about/safety/transcaer/index.html*

SEA did not recommend specific mitigation conditions for the City of New Orleans in the Draft EA because there is no projected change in hazardous materials transport through the City. SEA does not believe that the proposed increases in hazardous materials on other rail line segments in the State of Louisiana warrant additional mitigation. The Applicants currently operate according to the Federal regulations and apply the voluntary AAR Key Route guidelines. SEA believes that Federal regulations and the Applicants' voluntary practices sufficiently address any increased risk in the City of New Orleans.

2.2.13 Local and County Government: Southeast Michigan Council of Governments

The Southeast Michigan Council of Governments (SEMCOG) provided comments on the Draft EA and forwarded comments from the following communities:

- City of Ferndale.
- City of Detroit.
- Monroe County.

These communities, along with SEMCOG, raised the following issues:

- General environmental concerns.
- Hazardous materials.
- Intercity passenger operations.
- Highway/rail at-grade crossing vehicle delay.
- Cumulative Effects.

Environmental Concern - General

Comment: SEMCOG stated that, based on the information provided in the Draft EA and its review, the proposed Acquisition did not appear to conflict with area-wide plans and did not appear to have a significant impact on the environment.

SEMCOG requested a response to comments in the areas of Hazardous Materials Transport Safety and Environmental Consequences—Cumulative Effects.

Response: SEA acknowledges SEMCOG's finding that the proposed Acquisition does not appear to conflict with area-wide plans or have a significant impact on the environment. SEA's responses to the other issues are described below.

Comment: The Oakland County Department of Community and Economic Development, under the auspices of SEMCOG, commented that its office forwarded information on the proposed Acquisition to the following local government bodies with no response as of its December 7, 1998 letter: Bloomfield, Holly, Rose, Springfield, Independence, and Waterford townships; the cities of Bloomfield Hills, Ferndale, Pleasant Ridge, Royal Oak, Birmingham, Troy, and Pontiac; and the Village of Holly.

Response: SEA thanks the Oakland County Department of Community and Economic Development for forwarding information on the proposed Acquisition to local government bodies and acknowledges that it received no response. The City of Ferndale subsequently submitted comments, which SEA addresses later in this section.

Comment: SEMCOG commented that the timing of the Draft EA review and comment period was too short. Community informational meetings, sponsored by SEMCOG, reflected the importance of this project to Southeast Michigan. SEMCOG stated that the relatively short review period, interrupted by the Thanksgiving holiday, left some potentially impacted communities inadequate time to review the document prior to the meeting. It stated that a longer review period would have allowed Southeast Michigan communities, businesses, and other attendees adequate time for the thorough analysis a transaction such as this deserves.

Given the short review period, SEMCOG appreciated and commended SEA on the organization of the Draft EA. This allowed its staff to provide an analysis of the potential impact of this proposed Acquisition.

Response: SEA thanks SEMCOG for its comment on the organization of the Draft EA. SEA understands SEMCOG's concern that the comment period was too short and interrupted by the Thanksgiving holiday. The public comment process is a critical part of SEA's environmental review. SEA established a 32-day comment period to accommodate the Thanksgiving holiday.

SEA has included SEMCOG on its distribution list for the Final EA. Additionally, SEA notes that the Board's review process includes a 20-day period during which any interested parties may file an administrative appeal on any aspect of its final decision.

Comment: SEMCOG forwarded a comment on the Draft EA submitted by the City of Detroit Planning and Development Department stating the Department's support of the Draft EA.

Response: SEA acknowledges the Department's comment supporting the Draft EA.

Hazardous Materials

Comment: SEMCOG concurred with SEA's identification of four rail line segments in Southeast Michigan that will incur an increase in hazardous materials carloads exceeding its Key Route criterion.

SEMCOG requested that any costs incurred by Southeast Michigan counties and communities associated with emergency response plans need to be identified and addressed. SEMCOG stated that Southeast Michigan communities have limited resources, and any additional costs resulting from increased emergency response planning and/or implementation should not be borne by the communities.

Response: As SEMCOG notes in its comments, SEA identified four rail line segments in Southeast Michigan that would become Key Routes. The Applicants currently manage these rail lines as Key Routes. SEA is recommending that the Board require the Applicants to continue managing these segments as Key Routes for three years. Specifically, the Applicants would have to:

- Comply with the current AAR key train and Key Route guidelines, which include a maximum operating speed of 50 mph and full train inspections whenever a train is stopped by an emergency application of the train air brake or following a report of a defect by a wayside defect detector.

- Distribute copies of their hazardous materials emergency response plans to local emergency response organizations.

- Provide dedicated toll-free telephone numbers to local emergency response organizations to provide them with access to CN and IC dispatch centers 24 hours per day, seven days per week.

SEA believes that this mitigation adequately addresses the potential adverse effect of increased hazardous materials transport associated with the proposed CN/IC Acquisition in Southeast Michigan. SEA does not believe that the increased hazardous materials transported through the area (from 8,395 to 12,775 carloads per year) warrants requiring the Applicants to contribute additional financial support to the various communities and their local emergency responders.

Comment: The Monroe County Planning Department and Commission, under the auspices of SEMCOG, commented on the proposed increase of hazardous materials transport along two specific rail line segments within Monroe County. The two rail line segments, 1158 and 1170, show substantial proposed increases in movement of carloads of hazardous materials resulting from the proposed Acquisition.

Rail line segment 1158 operates from FN Tower in Wayne County to the City of

Monroe, and rail line segment 1170 operates from Flat Rock (also in Wayne County) to Diann Tower near Petersburg in Monroe County. These hazardous materials carload increases amount to 12 and 33 percent, respectively, despite little or no projected increases in freight tonnage. Monroe County points out that freight tonnage is expected to increase by 1 percent on segment 1158 but would not increase on segment 1170. It does not understand why the proposed Acquisition would cause such high increases in hazardous materials shipments, accompanied by little or no increases in overall freight tonnage. Monroe County believes that this represents an increased risk to the residents of Monroe County and increased costs to the Monroe County Emergency Management Division for preparing for and responding to emergencies resulting from hazardous materials accidents. Monroe County requested that CN provide assistance, financially and through other means, to deal with potential and real hazardous materials emergencies.

Response: SEA reviewed traffic volumes by category to determine why the increase in hazardous commodities transported over rail line segments 1158 and 1170 would not yield a comparable increase in total tonnage. In general, the types and volumes of commodities moving over rail line segments following the proposed CN/IC Acquisition would vary from the commodity mix in the pre-Acquisition scenario because new shipping routes would become available. SEA notes that in Monroe County, because the base traffic levels are so small (33 and six carloads of hazardous materials per day, respectively), even small increases in volume cause the percentages to increase significantly. Appendix A, "Technical Information," of the Final EA shows the increased rail traffic associated with each rail line segment in the proposed CN/IC system.

The aggregate data the Applicants report in the Operating Plan does not describe changes in the volumes of specific commodities transported, but it does differentiate between hazardous and non-hazardous materials. The Board required the Applicants to submit projections for shipment of hazardous commodities because this information is essential for SEA's environmental review of a proposed transaction. SEA's environmental analysis showed that the amount of hazardous materials the Applicants transport along rail line segments 1158 and 1170 would increase, but it would not increase to levels warranting mitigation.

SEA notes that rail line segment 1158 is already a Key Route, and the Applicants currently manage this segment in voluntary cooperation with AAR guidelines for Key Routes. SEA further notes that the 33 percent increase of hazardous materials transported along rail line segment 1170 constitutes a total of 730 additional carloads annually over an existing base of 2,190, and the 12 percent increase along segment 1158 constitutes a total of 1,436 additional carloads annually over an existing base of 12,057. Neither these increase meets SEA's criterion of significance for hazardous materials transport. Based on its analysis, SEA does not believe that the Board should require the Applicants to provide financial assistance to Monroe County to prepare for hazardous materials emergencies.

Comment: SEMCOG concurred with SEA’s identification of four rail line segments in

Southeast Michigan that will incur an increase in hazardous materials carloads that exceed its Key Route criterion.

SEMCOG noted that the proposed mitigation Condition 2 (Draft EA, Chapter 8, "Preliminary Recommended Mitigation Measures," Section 8.2, page 8-5) stated that the "Applicants shall continue to manage the four rail line segments as Key Routes for a period of at least three years from the effective date of the Board's decision." SEMCOG recommended that these rail line segments be operated as Key Routes as long as the number of carloads is above the threshold of 10,000 carloads per year. Should the number of carloads fall below the threshold, SEMCOG recommends that the operating guidelines be re-evaluated at that time.

Response: SEA notes that DOT and FRA provide strict regulations for the transport of hazardous materials by rail. SEA notes that intends its mitigation approach to provide an extra measure of safety protection (beyond the Federal safety requirements) to address the near-term Acquisition-related changes in hazardous materials transport. Further, the Applicants already voluntarily manage these particular segments as Key Routes, even though they do not meet the AAR guidelines of 10,000 carloads of hazardous materials annually.

Following the recommended three-year period, the Applicants would manage these rail line segments according to Federal hazardous materials transport requirements and their own policies regarding AAR guidelines. This approach provides a consistent safety process for rail line segments throughout the Applicants' rail system while addressing the Acquisition-related increase in hazardous materials traffic during the implementation period.

Comment: SEMCOG forwarded a comment on the Draft EA from the City of Ferndale. The City of Ferndale asked what hazardous chemicals are currently transported. The City also asked what future increase in hazardous waste transport is anticipated from the proposed CN/IC Acquisition.

Response: SEA refers SEMCOG and the City of Ferndale to Attachment C-4, "List of Hazardous Materials to be Transported," in Volume 2 of the Draft EA. This table presents the types of hazardous materials that would be transported over the CN/IC system. The 30-page table includes information on both pre- and post-Acquisition quantities for each type of hazardous material. Additionally, in response to Ferndale's question regarding anticipated increases in hazardous materials transported through Ferndale, the Draft EA notes that the rail line segment that runs through Ferndale from Detroit Intermodal to Mal Junction, Michigan would become a Key Route. The estimated number of hazardous materials carloads transported along this rail line segment would increase from 8,395 carloads to 12,775 carloads annually as a result of the proposed Acquisition. The Applicants currently manage this rail line segment as a Key Route. SEA recommends that the Board require the Applicants to continue managing this rail line segment as a Key Route for three years. As a Key Route, the Applicants would:

- Comply with the current AAR key train and Key Route guidelines, which include a maximum operating speed of 50 mph, and full train inspections whenever a train is stopped by an emergency application of the train air brake or following a report of a defect by a wayside defect detector.

- Distribute copies of their hazardous materials emergency response plans to local emergency response organizations.

- Provide dedicated toll-free telephone numbers to local emergency response organizations to provide them with access to CN and IC dispatch centers 24 hours per day, seven days per week.

SEA believes that this mitigation adequately addresses the potential significant adverse effect of increased hazardous materials transport resulting from the proposed CN/IC Acquisition in the Ferndale, Michigan area.

Intercity Passenger Operations

Comment: SEMCOG forwarded a comment on the Draft EA that the City of Ferndale submitted. The City questioned whether the rail line segment between downtown Detroit and Pontiac, Michigan can be considered for intercity passenger operation and asked how the proposed Acquisition would affect this situation.

Response: The use of private railroad lines by local, regional, or national passenger railroad services is governed by negotiated contracts between the railroad company that owns the rail lines and the passenger rail service. Nothing in the proposed CN/IC Acquisition would prevent a local, regional, or national passenger rail service from negotiating use of a rail line between Detroit and Pontiac, Michigan with the owner of the track. Any negotiated agreement granting a passenger rail service the use of CN or IC rail lines would be the sole responsibility of the railroad and the individual passenger rail service.

Highway/Rail At-Grade Crossing Vehicle Delay

Comment: SEMCOG forwarded a comment on the Draft EA from the City of Ferndale. The City asked how many trains currently cross Nine Mile Road each day. The City

also asked how many additional road crossings would result from the proposed CN/IC Acquisition.

Response: SEA reviewed the Applicants' information regarding the average number of trains that currently cross Nine Mile Road each day and the number of additional trains that would cross the road following the proposed Acquisition. Based on the Applicants' Operating Plan, the rail line segment through the City of Ferndale (rail line segment 1222, Detroit Intermodal, MI-to-Mal Junction, MI), which crosses Nine Mile Road, currently carries 14.43 freight trains per day. If the proposed Acquisition is approved, the number of freight trains would decrease by 1.59 trains to 12.84 trains per day.

Cumulative Effects

Comment: SEMCOG stated that an analysis of potential cumulative effects from this project when added to a past action is allowed under NEPA regulations and requested that SEA respond to their concern.

SEMCOG's concern is that the proposed Acquisition could result in less frequent but longer trains, thereby causing lengthier delays and blockage of more crossings than under normal conditions. SEMCOG noted that the Draft EA proposed that the number of trains using CN rail line segment 1000 from Sarnia, Ontario, Canada to Port Huron, Michigan would decrease by 9 percent, while the volume of freight trains is expected to increase by 8 percent. SEMCOG recommended that SEA consider the potential for cumulative impacts from the proposed action in the Final EA.

SEMCOG was informed by a representative of the St. Clair County Transportation Study that improvements made to CN's tunnel between Sarnia, Ontario, Canada and Port Huron, Michigan have resulted in lengthier and more frequent highway/rail at-grade crossing blockage delays in Port Huron. SEMCOG stated that one such delay resulted in a fatal crash during the past year. These delays, SEMCOG argued, are caused by necessary customs and immigration inspection procedures.

SEMCOG noted that CN representatives have indicated that they are working to alleviate the current highway/rail at-grade crossing problems. SEMCOG requests that the Board assist CN in resolving both the existing and future at-grade rail/truck crossing delays and blockages.

Response: Regarding delay related to train traffic, SEA's analysis approach identifies all highway/rail at-grade crossings that meet or exceed its thresholds, which are based on increased train traffic and increased gross ton-miles. None of the highway/rail at-grade crossings along rail line segment 1000 met SEA's thresholds for analysis.

The new Sarnia tunnel opened on April 5, 1995. The Applicants reported to SEA that during the summer of 1998, CN began to experience increased scrutiny of trains

by U.S. customs inspectors which increased train delay and traffic delay at highway/rail at-grade crossings near the inspection track in Port Huron, Michigan. However, two grade-separated crossings are adjacent to the Port Huron Yard, at 24th Street and I-94, so train delays do not completely block fire and emergency vehicles. After a meeting with the City of Port Huron, Michigan officials in August 1998, CN agreed to notify the local sheriff's department of any extended crossing delays. Since the August meeting, CN has:

- Agreed to move trains blocking crossings immediately if contacted by the City's Fire Department or Ambulance Department.
- Installed motion detectors at the crossings of concern, so that crossing gates will not remain down if a train occupies the adjacent block but not the crossing itself.
- Installed operational improvements to allow faster movements of trains using the main line to back in and out of the Port Huron Yard.

To reach a more permanent solution, CN is working with Canadian Pacific Railway Company (CP) to establish an electronic commerce initiative at four U.S.-Canada border crossings (including Port Huron, Michigan). This initiative would automate customs procedures, significantly reduce the time required for customs inspections and document processing, and greatly alleviate problems with crossing delays in Port Huron, Michigan. CN has also discussed this plan with SEMCOG's transportation planning staff.

As a result of the proposed Acquisition, the number of CN freight trains on this segment would decrease from 22.56 to 20.42 trains per day and increase by 7,649 gross tons per day. The proposed increase in gross tonnage would equate to an increase of approximately 375 gross tons per train or six carloads per train per day. SEA believes the projected decrease of two trains per day on this line segment would result in fewer highway/rail at-grade crossing blockage delays due to customs and immigration inspections in Port Huron, Michigan. Because the Acquisition-related delay effect on this segment would be positive, SEA concludes that there is no cumulative impact to analyze.

2.2.14 Local and County Government: DeSoto County, Mississippi

The Office of the County Administrator from DeSoto County, Mississippi requested a response to emergency response and hazardous materials issues that the Civil Defense official had raised.

Hazardous Materials

Comment: The Director stated that DeSoto County has lived basically safely and happily with the railroad for years. The railroad basically hauls what it always did, though the composition of some materials carried makes them much more dangerous when spills occur. Also, the railroads that pass through DeSoto County formerly passed through sparsely populated areas, but normal growth and development have placed more homes and businesses close to the tracks. Therefore, if a 1940-sized incident occurs in 1999, more people would be at risk simply because more people would be present in an incident zone.

Response: Federal agencies, such as DOT and FRA, strictly regulate hazardous materials transport by rail. These regulations and the Applicants' compliance with them will remain in place if the Board approves the proposed CN/IC Acquisition. In addition, CN voluntarily participates and plays a key role in TransCAER®, an information training program for communities through which dangerous goods are transported. SEA encourages DeSoto County to contact CN for further information on TransCAER®. SEA believes that Federal regulations and the Applicants' voluntary practices sufficiently address any additional risk from increased hazardous materials transport through DeSoto County and the State of Mississippi.

Comment: Concerning the transport of hazardous materials through DeSoto County, the Director asked if, given that shipments of radioactive materials to a disposal plant are scheduled to start in 1999, the railroad would be involved in any other fashion than previously planned. Additionally, the Director asked if railroad company policy regarding the routing of hazardous materials shipments would change.

Response: The Applicants have indicated to SEA that IC, the current owner of the rail line segment that passes through DeSoto County, neither transports nor plans to transport radioactive material along this segment. The Applicants have also indicated that they will not change their company policy regarding the routing of hazardous materials.

As stated previously, Federal agencies, such as DOT and FRA, strictly regulate hazardous materials transport. These regulations and the Applicants' compliance with them will remain in place if the Board approves the proposed CN/IC Acquisition.

Emergency Response

Comment: The Director asked whether any emergency railroad contacts would change as a result of the change of ownership.

Response: The Applicants have indicated to SEA that they do not plan to change the emergency contacts if the Acquisition is approved. Existing communication modes would remain in place following the Acquisition.

2.2.15 Group/Association: Center for Neighborhood Technology, Illinois

The Center for Neighborhood Technology (Center), a citizens' group located in Chicago, Illinois, commented on hazardous materials and environmental justice.

Hazardous Materials and Environmental Justice

Comment: The Center expressed concern about the proposed significant increase in hazardous materials transport along certain rail line segments in Illinois, Kentucky, and Michigan. The Draft EA states that, "rail related accident occurrences correlate to the level of rail activity" (Draft EA, Volume 1, page 4-18). To the extent that hazardous materials transport and handling are increased, the risk to communities along those rail line segments therefore bears an increased risk of impacts from a hazardous materials release. Such incidents are not infrequent. CN, IC, and their operating subsidiaries reported 164 incidents from June 1993 through May 1998.

The Center supported the Draft EA recommended mitigation measures (see Draft EA, Chapter 4.2.1, page 4-17, "SEA's Conclusions"). However, the Center believed that more should be done to prevent releases from occurring and recommended the following additional mitigation measures:

1. Limiting train speeds of key trains within cities and areas with environmental justice populations to 10 mph below speeds permitted for non-key trains.

2. Using rail defect detection cars to inspect main track and sidings or perform an equivalent level of inspection no less that three times per year on Major Key Routes.

3. Using track-geometry inspection cars to inspect main track and sidings or perform an equivalent level of inspection no less than twice per year on Major Key Routes.

In a follow-up letter submitted on December 17, 1998, the Center requested that SEA incorporate a resolution passed by the City of Centralia, Illinois endorsing the Draft EA comments submitted on December 11, 1998 by the Center. The City Council of the City of Centralia passed a resolution urging the Board to give serious consideration to the Center's recommendations. The City stated that the proposed Acquisition would result in a significant increase in the amount of

hazardous materials transported on the line segment passing through the City of Centralia, which had been designated as a Major Key Route.

Response: In response to the Center's comment on the Applicants' history of hazardous materials releases, SEA reviewed the Applicants' history and notes that of the 164 incidents, 75 incidents were minor with a total release of less than 1 pound or 1 gallon. In addition, 141 of the 164 incidents were not related to rail accidents, but were attributable to packaging/handling errors. The Center's proposed speed restrictions and track inspection frequencies would not address these types of incidents. SEA analyzed the potential risk of release for rail line segments and potential changes resulting from the proposed CN/IC Acquisition. SEA determined that the shortest predicted interval between releases for any segment would be 309 years.

Therefore, SEA focused its analysis on determining whether the accident rate would change following the Acquisition and whether the pattern of hazardous materials shipment would change. In its analysis of overall freight rail operations safety, SEA determined that the proposed CN/IC system's accident rate would not change significantly from existing rates. In its review of hazardous materials shipping patterns, SEA identified a number of rail line segments where hazardous materials carloads would increase to become Key Routes or Major Key Routes. SEA has recommended mitigation to provide additional safety measures along these segments.

SEA considered the Center's request that SEA modify its mitigation to recommend that the Board require the Applicants to take the following measures to prevent hazardous material releases in communities located on Key Routes: limiting key train speeds to 10 mph below speeds permitted for non-key trains; inspecting main track and sidings for rail defects no less than three times per year on Major Key Routes, and inspecting the geometry of the main track no less than three times per year on Major Key Routes. SEA does not believe that the proposed CN/IC Acquisition warrants such procedures for the reasons presented in the following paragraphs.

Regarding the Center's request to lower key train speeds to 10 mph below speeds permitted for non-key trains, SEA's recommended mitigation for the rail line segment through Edgewood and other communities or Major Key Routes already includes a reduced speed limit (to 50 mph) for key trains (i.e., trains that carry over a minimum amount of hazardous materials). This will provide an extra measure of safety over what FRA has deemed safe for Class 4 track. FRA is the Federal government's primary rail safety agency. In developing speed limits, FRA considers track geometry, super-elevation, and other physical conditions to identify optimal, safe speeds. Based on these characteristics, FRA designates track by "Class" and sets the speed limit. Currently, the Applicants' track in

Edgewood is Class 4, for which FRA has established a speed limit of 60 mph. The IC timetable speed is also 60 mph.

SEA concurs with FRA speed limits and believes its recommended mitigation in the Draft EA provides the safety protection that the Center seeks. SEA's additional mitigation for communities with environmental justice populations would tailor the hazardous materials transport mitigation to the needs of these communities. The recommended mitigation includes additional local emergency response coordination and training.

In response to the Center's comment regarding the use of rail defect detection and track-geometry cars to inspect track quarterly or an equivalent level of inspection, SEA defers to FRA inspection standards. FRA requires internal inspection of all Class 4 rail track at least every 40 million gross tons of traffic that the track carries or once a year, whichever occurs first. SEA notes that FRA recently implemented this value after researching the causes of rail defects. FRA's research showed that rail defects generally correlate to the level of rail traffic rather than time, and conducting more frequent inspections is redundant and an unproductive use of safety dollars. Under FRA regulations, most tracks in high-volume service must be inspected visually for geometry defects twice per week. Visual inspections may be even more effective than inspection cars because human inspectors can identify more than just geometry defects. Qualified track inspectors look specifically for geometry defects and examine tie conditions, ballast and subballast conditions, drainage conditions, and other structural elements. SEA believes that the FRA-required visual and internal defect inspections sufficiently address potential risks associated with rail and track defects.

In addition, the Applicants report that CN owns and operates a track geometry car. CN's standard operating procedures call for the car's use for inspections twice per year on Class 4, 5, and 6 track; twice per year on Class 1, 2, and 3 track with over 25 million gross tons per year; and once per year on other track. In practice, CN uses the track geometry car for track inspection three to four times per year on the main line and one to three times a year on more lightly traveled routes. CN's rail flaw detection program is contracted to a third party. Rail flaw inspections are made three to five times per year on the main line and one to three times per year on less traveled routes. As the Applicants stated in both the Operating Plan and the Safety Integration Plan, they believe the sharing of best practices, including track engineering and maintenance, would be a key benefit of the CN/IC Acquisition transaction.

In response to the City of Centralia's resolution that the Board give "serious consideration" to the Center's recommendations regarding safety, SEA notes that it considered the Center's recommendations carefully. However, based on its analysis of the Center's request, SEA determined that the Center's recommendations would not prevent hazardous materials releases to any degree greater than existing FRA requirements. SEA notes that it has included a copy of the resolution, which it received on December 22, 1998, with the comments previously submitted by the

Center and the Village of Edgewood in Appendix D, "Comment Letters," of the Final EA.

2.2.16 Group/Association: South East Chicago Commission, Illinois

The South East Chicago Commission (SECC), a community organization based in the Hyde Park-Kenwood neighborhood of Chicago, Illinois, considers neighborhood issues pertaining to housing, public safety, and transportation. The IC main line along rail line segment 171, Chicago-to-Chicago 94th Street, Illinois bisects the community. SECC commented on the following issues:

- Rail operations.
- Rail accidents.
- Hazardous materials.
- Air quality.
- Noise.
- Maintenance.
- Safety integration.

Rail Operations

Comment: SECC asked whether the railroads are bound to "good-faith" efforts not to exceed the forecasted freight train levels by specific levels over a certain period of time, unless they implement additional mitigation. SECC also requested that a continuing review process be established to monitor future train traffic changes.

Response: SEA considered SECC's request that SEA recommend the Board establish an ongoing review process to monitor freight traffic against the levels that the railroads forecasted in their Application. SEA notes that its environmental review process includes a careful review of the train traffic projections in the Applicants' Operating Plan. Based on its review and analysis, SEA determined that the projections, which are based on current freight traffic and anticipated changes resulting from the proposed CN/IC Acquisition, are reasonable.

During preparation of the Final EA, the Board also received comments on the Applicants' Operating Plan from other railroads. In its consideration of these other railroads' comments, SEA determined that the Applicants' train traffic projections for the Chicago area warranted minor changes. However, in its review, SEA determined that these changes did not cause any additional rail line segments to meet the Board's thresholds for environmental analysis, and the revised projections did not materially affect the analysis in the Draft EA or require modifications to SEA's recommended mitigation. SEA notes that if a material change in train traffic projections related to the proposed CN/IC Acquisition occurs after the Board makes its final written decision, any party may petition the Board to review the ongoing applicability of its final mitigation.

Rail Accidents

Comment: SECC states that although a slight decrease in total freight trains is predicted along rail line segment 171 (Chicago-to-Chicago 94th Street, Illinois), the increase in gross ton-miles translates into longer trains and a greater per-train chance of derailment.

SECC stated that a derailment could result in freight cars outside of the IC right-of-way and into streets, homes, commuter stations, and other trains. SEA's analysis noted that the chances of a derailment at a given time and location were remote; nevertheless, they will increase. This situation may apply over the length of the joint IC/Metra Electric right-of-way. A few years ago, a freight train derailed on the IC just north of their neighborhood; fortunately there were no injuries and, due to the early hour, commuter trains were not operating.

Response: SEA considered SECC's concern that longer trains could increase the potential for a derailment. SEA considered train length in its hazardous materials transport risk analysis. As noted in Appendix C, "Safety Analysis Methods and Results," of the Draft EA, SEA considered both train-related and railcar-related causes of collisions and derailments. Therefore, SEA specifically considered both the decrease in the number of trains and the increase in the number of railcars per train when determining the risk of a hazardous materials release resulting from a derailment. SEA concludes that the increased risk of derailments or hazardous materials releases associated with increased train length is very small and this potential increase in risk does not warrant additional mitigation measures.

SECC was particularly concerned about the effect of increased accidents because of IC's proximity to the Metra Electric right-of-way. In the Draft EA, SEA analyzed the potential increased accident risk in its "common corridor" analysis. (A common corridor is a rail corridor where freight trains run on tracks adjacent to passenger train tracks in the same corridor right-of-way). To conduct its analysis, SEA used a risk prediction model that includes a number of variables including the distance between the freight and passenger tracks, the track class and speed, and the length of time necessary to warn other trains after an accident. The number of trains is more significant than train length in this calculation. Therefore, SEA focused its common corridor analysis on segments where train traffic increases. In the case of rail line segment 171, Chicago-to-Chicago 94th Street, train traffic would decrease following the proposed CN/IC Acquisition. SEA concluded that the traffic change would not result in any significant increase in accident risk in this common corridor.

Hazardous Materials

Comment: SECC stated that although a slight decrease in total freight trains is predicted along rail line segment 171 (Chicago-to-Chicago 94th Street, Illinois), the gross ton-mile increase translates into longer trains and a greater per-train chance of derailment. SECC also noted the 27 percent increase in hazardous materials railcars.

SECC believes that a hazardous materials release could cause effects that extend far beyond the railroad right-of-way. If freight trains stopped at the interlocking signals

at 67th Street and 40th Street, the length of time that the hazardous materials are in the area will increase. Further, stopped trains are subject to vandalism, which can be particularly dangerous in the presence of hazardous materials. SECC's strong preference is that the railroad be operated in a manner that minimizes community exposure to potential hazardous materials releases.

Response: SEA considered SECC's concern that the increase in hazardous materials transport would increase the risk of a hazardous materials release, particularly when considered with the frequent stops that all trains must make at certain points in their community. However, based on the analysis it conducted for the Draft EA, SEA concludes that the increase in risk related to overall volume of hazardous materials transported does not warrant mitigation.

SEA researched the effects of stopping and starting and extended stops on accident frequency and determined that these factors do not significantly contribute to accidents involving hazardous materials releases. For the Draft EA, SEA analyzed the risk of a release along segments where hazardous materials transport would increase, and SEA determined that the predicted increase in the frequence of a hazardous materials release was statistically insignificant. SEA notes that the predicted risk of release along rail line segment 171 would be one release every 2,271 years.

SEA notes that Federal agencies, such as DOT and FRA, strictly regulate the hazardous materials transport by rail. In addition to the legally binding Federal regulations, CN voluntarily complies with AAR's Key Route guidelines, which would apply to segment 171, since it currently carries more than 10,000 carloads of hazardous materials per year. Additionally, CN plays a key role in TransCAER®, an information training program for communities through which dangerous goods are transported. SEA continues to believe that Federal regulations and the Applicants' voluntary practices sufficiently address any increased risk associated with hazardous materials transport along segment 171 in southeast Chicago.

Comment: SECC requested information regarding CN's TransCAER® program of community workshops related to hazardous materials and emergency preparedness (Reference: Draft EA's Appendix P, "Voluntary Railroad Mitigation Plans").

Response: SEA informed the Applicants that the SECC communities are interested in participating in TransCAER®. Further information on CN's TransCAER® program is available at the following website:
http://www.cn.ca/english/about/safety/transcaer/index.html

Air Quality

Comment: Rail line segment 171 (Chicago-to-Chicago 94th Street, Illinois) has a forecasted gross ton-mile increase of 46 percent. The gross ton-mile increase is slightly less than the 50 percent increase threshold required for air quality mitigation in

non-attainment areas. Given the population density of this area, SECC requested that rail line segment 171 be considered for air quality mitigation. SECC was pleased that the Draft EA described recent regulations to reduce locomotive emissions.

Response: SEA reviewed all of the air quality analysis results and determined that no potential for significant air quality impacts exists for rail line segment 171 because the level of projected train traffic is less than the Board's threshold for environmental analysis. SEA notes that in its analysis of all rail line segments that exceeded the Board's thresholds for air quality analysis, it did not identify any areas where the increased emissions resulting from the proposed CN/IC Acquisition would result in significant air quality impacts. Further, new EPA regulations for locomotive emissions would result in reduced air emissions for all rail line segments beginning in 2000. SEA concludes that changes in air quality along rail line segment 171 would not require mitigation.

Noise

Comment: SECC noted that forecasted post-merger operations on rail line segment 171 (Chicago-to-Chicago 94th Street, Illinois) will not approach SEA's "mitigation threshold" for noise. Nevertheless, SECC requested that SEA recommend the Board require the Applicants to conduct railroad operations in as quiet a manner as practicable and suggested the following measures: locomotive and track maintenance, horn noise, and operating practices. Given the absence of highway/rail at-grade crossings in this community, freight train horn blowing has not been a serious problem to date; SECC wishes to keep it that way.

Response: SEA considered SECC's request that the Final EA include a recommendation to require the Applicants to conduct railroad operations as quietly as practicable. SEA notes that in general, EPA regulations govern noise from freight trains and establish maximum noise levels for train operations. SEA believes that these requirements sufficiently limit noise from train operations and does not believe that further requirements are warranted. Regarding SECC's comment on horn sounding, SEA notes that state and local regulations require railroads to blow horns in certain situations for safety purposes. Since safety is paramount to the Board, SEA does not believe that recommending limits on horn blowing is prudent. However, SEA notes that in the absence of any highway/rail at-grade crossings on the rail line segment of concern to SECC, there would be no likely reason to sound horns for grade crossing safety. Based on its review, SEA concludes that the proposed operations on rail line segment 171 would not cause significant noise impacts, and therefore, these operations do not warrant mitigation.

SEA also notes that the Applicants have discussed noise issues with SECC and provided SEA with the following information about their noise reduction practices: the Applicants strive to reduce train noise through several operating measures, such as optimizing locomotive throttle settings (minimizing over-throttling); minimizing

the amount of train idling; limiting the use of whistles to the minimum necessary (e.g., highway/rail at-grade crossings and emergency situations); and using dynamic braking, which does not require the air compressor and allows the locomotive to idle at a lower engine speed.

Maintenance

Comment: SECC asked whether the many IC bridges are capable of safely accommodating the forecasted 46 percent gross ton-mile increase following the proposed Acquisition. SECC stated that some bridges showed signs of deterioration. SECC also asked if track standards and maintenance are commensurate with the increased gross ton-mile forecast.

Response: To address SECC's concern that IC bridges over streets in the southeast Chicago area are fit to handle additional gross tonnage, SEA asked the Applicants to review safety and maintenance for bridges on rail line segment 171. IC's Bridges and Structures Department stated that the current bridges on the Lakefront Line in Chicago (segment 171) are structurally sound and could handle the potential post-Acquisition increased levels of traffic. In addition, track standards and maintenance will indeed be commensurate with the increased tonnage on this segment. The gross tonnage of traffic moving over a bridge or rail line segment is one of many factors that track and bridge maintenance and inspection programs consider. As stated in both the Applicants' Operating Plan and Safety Integration Plan, sharing each railroad's best practices, including track and bridge maintenance and inspection programs, would be a key benefit of the CN/IC Acquisition. SEA also notes that FRA regulates the Federal agency primarily responsible for railroad safety. If the proposed Acquisition is approved, FRA would participate with the Board to oversee the safe integration of the Applicants' railroads.

Safety Integration Plan

Comment: SECC was pleased about the emergency preparedness and Safety Integration Plan requirements and hoped that these activities would be coordinated with the City of Chicago's police, fire, and emergency rescue services. SECC was concerned that FRA's letter of October 30, 1998 regarding the Applicants' proposed Safety Integration Plan stated that the Plan "is still lacking in some respects." SECC trusted that the Board would withhold final approval of the CN/IC Acquisition until the Safety Integration Plan was satisfactory.

Response: The Safety Integration Plan focuses on accident prevention during the proposed integration of the CN and IC systems and includes an ongoing process to allow the Applicants and FRA to respond to safety issues that arise during system integration. The Board and FRA would continue to monitor safety integration to ensure that the Acquisition is implemented in the safest manner possible. Nevertheless, SEA has forwarded SECC's request for coordination with Chicago officials to CN. SEA notes that it did not recommend specific mitigation conditions for the City of Chicago in the Draft EA because it does not believe that the proposed increases in hazardous materials transport through the Chicago area warrant additional mitigation. As a result, SEA anticipates no change to emergency preparedness in the Chicago area. SEA concludes that existing Federal regulations and the Applicants' voluntary practices sufficiently address any increased risk.

2.2.17 Passenger Rail Service Provider: National Railroad Passenger Corporation (Amtrak)

The National Railroad Passenger Corporation (Amtrak) commented on intercity passenger operations issues. However, SEA notes that Amtrak recently reached an agreement with CN and resolved its concerns about the proposed CN/IC Acquisition. In a filing to the Board dated February 8, 1999, Amtrak stated its support of the proposed Acquisition.

Intercity Passenger Operations

Comment: Amtrak concurred with SEA's assessment that IC's Chicago, Illinois-to-New Orleans, Louisiana main line was the line on which Amtrak trains would most likely experience adverse impacts as a result of the proposed CN/IC Acquisition. However, Amtrak stated that the Draft EA's conclusion that Amtrak's operations over the rail line segment will not be adversely impacted is based on flawed methodology.

Amtrak stated that SEA's conclusion in the Draft EA that the Cairo-to-Carbondale, Illinois segment could accommodate a total of 26 trains per day and, therefore, could accommodate the predicted post-Acquisition train traffic of 23 trains per day was based on a flawed methodology. Amtrak stated that SEA looked only at the theoretical maximum capacity of a rail line segment over a 24-hour period. It did not consider whether that segment actually could accommodate all of the existing and additional freight trains that the Applicants plan to operate at the times when Applicants plan to operate them, as shown in the projected schedules. Instead, it

assumed that all trains operating over the line segment will be distributed evenly throughout the day, seven days per week, 365 days per year. Similarly, the number of freight trains operated over most rail lines fluctuates both seasonally and day to day. While the Board recognized that such traffic fluctuations can significantly increase delays attributable to increased freight traffic, the Draft EA's approach assumed that they do not exist. Amtrak stated that the Draft EA's approach differed from the Board's findings in recent cases (see STB Ex Parte No. 573, "Rail Service in the Western United States," Decision served July 31, 1998, at 5). Similarly, Amtrak stated that the Draft EA's approach did not account for the need on nearly all rail lines to accommodate local train switching operations, which can consume a significant portion of available track time.

Amtrak stated that the Final EA should include the imposition of the limited on-time performance condition that Amtrak has asked the Board to impose if it approves the Acquisition.

Response: SEA reviewed Amtrak's comments and re-evaluated the passenger rail capacity analysis. For the Draft EA, SEA first identified the theoretical capacity of the rail corridor. To allow for the daily and seasonal fluctuations in train traffic, SEA applied a conservative, industry-accepted safety factor of 60 percent to the rail line segment. This safety factor allows for activities that are not specifically included in the capacity model, such as track maintenance and local industry switching, and variations in weather, scheduled operations, shipper needs, and other factors.

In the Draft EA, SEA estimated the theoretical capacity of this line to be 43 trains per day. Applying the 60 percent factor resulted in SEA's estimated capacity of 26 trains per day as Amtrak cited. This allows for a "cushion" of 17 trains per day to accommodate peak volumes. This methodology is noted in Volume 2, Appendix D, "Transportation Analysis Methods and Results," of the Draft EA. SEA then compared the projected train traffic with this conservative capacity estimate. Based on this information, SEA concluded that the rail line segment has sufficient capacity to accommodate the additional freight traffic without significantly affecting passenger train service. Measuring average traffic volumes against the estimated capacity of 26 trains, rather than the theoretical maximum of 43 trains, provides a cushion against peak volumes. The use of such a cushion is accepted in the industry as a valid method for calculating capacity.[19]

However, SEA conducted additional analysis in response to Amtrak's comments. Its study reveals little variation of traffic levels between Cairo and Carbondale during the course of a week. More than 85 percent of the trains (including all intermodal trains) operate seven days per week, and another 10 percent run six days per week. Similarly, there is little seasonal variation of traffic on this segment. The most significant variation results from additional grain traffic in October and November,

[19] American Railway Engineering Association, *Manual for Railway Engineering*, Chapter 16, Section 4.4.2, (1994).

which is limited to one or two trains per day. Finally, the capacity analysis does not include local trains because no regularly scheduled local trains use the Carbondale-to-Cairo segment.

SEA also reviewed overall on-time performance for IC. From October 1, 1997 to November 9, 1998, IC had the second best record among Class 1 railroads for decreases in railroad-controlled delays to Amtrak (Grand Trunk Western was the most improved). During the same period, IC had the fourth best record for Amtrak train delay among Class 1 railroads (535 minutes per 10,000 train miles). The Applicants state, "IC has consistently made Amtrak's on-time performance a top priority and will continue to do so."

In addition to SEA's conclusions that sufficient theoretical line capacity exists and the proposed Acquisition would not conflict with scheduled passenger operations beyond the capacity of the rail line, the relevant portions of the Rail Passenger Service Act of 1970 provide Amtrak with further safeguards. This Act requires that Amtrak passenger operations take precedence over other types of traffic moving over the rail line. The Applicants, therefore, must consider this when either scheduling operations or during the day-to-day dispatching of their rail lines. Based on SEA's analysis of the line capacity on the Chicago-to-New Orleans rail line segment and the existing laws mandating passenger rail priority over freight operations, SEA concludes that the proposed Acquisition does not warrant an on-time performance standard as a condition of the Application.

2.2.18 The Applicants

The Applicants commented on general environmental concerns and the Safety Integration Plan.

Environmental Concern - General

Comment: The Draft EA stated and the Applicants concurred that the transaction, if conditioned on mitigation proposed by SEA, would not have any significant adverse environmental impacts. The Applicants stated that, as the Draft EA showed, the overall environmental effects of the transaction are generally favorable or neutral. The transaction is a simple end-to-end combination of the two smallest Class 1 railroads in the United States (as measured by miles of road operated). No abandonments are related to the transaction and, therefore, no diversion of rail traffic to less environmentally friendly truck transportation. Only two small construction projects (connections at Jackson, Mississippi and Cicero, Illinois) would have effects outside the existing railroad right-of-way, and those effects, as described in detail in the Draft EA, would be minor. Traffic diversions to the combined system would be relatively minor, as would be such local effects as increases in noise and air emissions.

As the Draft EA demonstrated, the system-wide effects of the proposed Acquisition would be favorable to the environment. Among other things, the Draft EA projects

that, largely as a result of truck-to-rail diversions, the proposed Acquisition would bring about substantial net reductions in emissions of volatile organic compounds (VOCs), carbon monoxide (CO), oxides of nitrogen (NO_X), particulate matter (PM_{10}), and insignificant net increases in emissions of sulfur dioxide (SO_2). In addition, the Draft EA projected that truck-to-rail diversions would contribute to a net fuel consumption savings of 4.22 million gallons per year and would reduce highway maintenance costs and traffic congestion.

The Applicants further stated that, given the substantial environmental benefits of the Acquisition, the Board should not be swayed by parties that challenge the Draft EA's conclusions with criticisms of its methodologies or suggest that the adverse environmental effects are significant and require drastic mitigation measures.

Response: SEA concurs with CN's and IC's comments that the proposed Acquisition generally results in beneficial environmental effects for air quality, fuel consumption, and highway traffic congestion. For issues with potential adverse effects, SEA believes that by implementing its recommended mitigation, no significant adverse impacts would result from the proposed CN/IC Acquisition. Nevertheless, SEA reviewed and responded to each comment submitted, performed additional analysis as necessary, and refined the mitigation it presented in the Draft EA to respond to public and agency concerns. Although these modifications are minor, they serve to clarify SEA's intention to mitigate potential effects and address public concerns.

Safety Integration Plan

Comment: The Applicants also stated that, as the Draft EA noted, they are continuing to work with FRA to address its concerns regarding safety implementation. The Applicants urged SEA to adhere to the recommendations in the Draft EA, which would make provisions for that process to continue and would allow FRA, the agency with special expertise on rail safety, to take the lead in addressing issues that may arise from integrating two rail systems with different safety practices.

Response: SEA acknowledges the Applicants' comment that they will continue to work with FRA to address its concerns regarding the Safety Integration Plan for the proposed Acquisition. SEA understands and recommends that the Safety Integration Plan is an evolving document that is subject to any future additions and modifications necessary to safely integrate CN and IC operations. SEA's recommended mitigation acknowledges that FRA will maintain the lead role in addressing issues related to the Safety Integration Plan and report any integration issues that warrant Board action and oversight.

CHAPTER 3
SEA'S FINAL RECOMMENDED ENVIRONMENTAL MITIGATION

Chapter 3 presents the Section of Environmental Analysis' (SEA's) final recommended environmental mitigation for the Surface Transportation Board (Board) to consider in its final written decision on the proposed Canadian National Railway Company/Illinois Central (CN/IC) Acquisition. In preparing its final recommended mitigation, SEA reviewed the 20 comment letters it received on the Draft EA and made appropriate changes to its preliminary recommended mitigation measures to reflect those comments and SEA's additional analysis. Chapter 3 consists of two sections— Section 3.1 presents SEA's approach to developing appropriate mitigation, and Section 3.2 contains SEA's specific mitigation recommendations.

During its environmental review, SEA identified potential significant impacts in only one area, hazardous materials transport. SEA determined that these impacts could also result in disproportionately high and adverse effects for environmental justice populations in five communities in Southern Illinois. Chapter 3 contains SEA's recommended mitigation for this issue area, including tailored mitigation to address the needs of affected environmental justice populations. SEA also recommends that the Applicants be required to apply construction Best Management Practices to prevent potential impacts from proposed construction activities. Furthermore, this chapter includes mitigation that would require compliance with the ongoing safety integration process that the Federal Railroad Administration (FRA) and the Board would oversee. With the mitigation described in this chapter, SEA concludes that the proposed CN/IC Acquisition would not result in significant adverse environmental effects.

3.1 OVERVIEW OF SEA'S APPROACH TO MITIGATION

During its environmental review, the Board took the requisite "hard look" at the potential environmental consequences of the proposed CN/IC Acquisition. In its environmental review, SEA conducted a thorough and comprehensive analysis of the potential environmental effects associated with the increases in rail activities CN and IC propose in their Application to the Board. In its analysis, SEA considered the following:

- Safety: Effects on freight rail operations, hazardous materials transport, passenger rail operations, highway/rail at-grade crossings, and emergency vehicle response delay.

- Transportation Systems: Effects on delay at highway/rail at-grade crossings, traffic and roadway systems, passenger rail operations capacity, and navigation.

- Energy.
- Air Quality.

- Noise.
- Environmental Justice.
- Natural Resources (including biological resources).
- Hazardous Waste Sites.
- Cultural and Historic Resources.
- Land Use.
- Cumulative Effects.
- Safety Integration.

3.1.1 Scope of the Board's Conditioning Power

The Board has limited authority to impose conditions to mitigate potential environmental impacts. As a government agency, the Board can only impose conditions that are consistent with its statutory authority. Accordingly, any conditions the Board imposes must relate directly to the transaction it is licensing, must be reasonable, and must be supported by the record before the Board. Thus, the Board's practice consistently has been to mitigate only those impacts that result directly from the proposed action. The Board typically does not require mitigation for pre-existing environmental conditions, such as the effects of current railroad operations.

In considering whether to approve the proposed Acquisition, the Board must weigh the anticipated public benefits to the national transportation system, interstate commerce, and affected regions and communities against potential adverse effects. In making its decision regarding this project and any conditions it might impose, including environmental conditions, the Board will consider the Draft EA, Final EA, public comments, and SEA's final environmental mitigation recommendations.

As an alternative to the mitigation that the Board would unilaterally impose on the Applicants (notwithstanding mitigation required by other Federal regulatory agencies that may have jurisdiction over potentially affected resources), SEA strongly encourages the railroads and affected communities to negotiate mutually acceptable agreements. The Board could then impose compliance with the terms of any mutually acceptable binding agreement as an environmental condition in any decision approving the proposed CN/IC Acquisition. These negotiated agreements would supersede any of SEA's recommended mitigation for that community. SEA also encourages CN and IC to develop voluntary mitigation to address potential impacts. For example, SEA notes that CN has offered its TransCAER® program to address hazardous materials transport issues.

3.1.2 Safety Integration

Safety is of paramount importance to the Board. In addition to the mitigation in this Final EA, which addresses the safety impacts associated with the transport of hazardous materials, the Board directed the Applicants to prepare a Safety Integration Plan under FRA guidelines that specifically

addresses the process of safely combining the two separate systems if the proposed Acquisition is approved. FRA has reviewed and commented on the Safety Integration Plan, and the Applicants have revised it to address FRA concerns. Because safety integration is an ongoing process, the Board and FRA also have entered into a Memorandum of Understanding (MOU), with the concurrence of the U.S. Department of Transportation, that outlines the continuing Safety Integration Plan process and establishes the way in which FRA and the Board will address potential issues.

To facilitate public review and comment on this important issue, the Draft EA included the complete Safety Integration Plan, FRA's comments on the Plan, and the MOU. SEA also reviewed the plan. SEA fully considered public and agency comments in preparing this Final EA.

3.2 RECOMMENDED MITIGATION MEASURES

Based on its independent environmental analysis, review of the available information, and agency consultation, SEA recommends that the Board impose, as conditions to any decision approving the proposed CN/IC Acquisition, 15 environmental mitigation measures to address the following issues:

- Hazardous materials transport.
- Environmental justice.
- Construction projects.
- Safety Integration Plan.
- Mitigation monitoring and enforcement.

Table 3-1, "Final Recommended Mitigation by State," identifies the recommended mitigation measures for each state. Additional tables follow for specific mitigation measures to identify the rail activity or community to which the recommended mitigation measures apply.

SEA recognizes that its hazardous materials mitigation measures would promptly address the near-term potentially significant impacts of changes in rail traffic resulting from the proposed CN/IC Acquisition. Existing FRA and DOT regulations provide the safety standards governing the transportation of hazardous materials by rail, and SEA does not intend for its mitigation to interfere with any Federal regulatory standards. Nevertheless, SEA's final recommended mitigation measures include conditions that would remain in effect for only three years or during any longer oversight period that the Board may establish for this transaction.

For all recommended mitigation measures requiring certification to the Board, the Applicants shall provide an original plus 25 copies of certification to the following address:

Office of the Secretary
Case Control Unit
Finance Docket No. 33556
Surface Transportation Board
1925 K Street, NW
Washington, DC 20423-0001

TABLE 3-1
FINAL RECOMMENDED MITIGATION BY STATE

State	Final Recommended Mitigation Condition
Alabama	1, 7, 13, 14, 15
Illinois	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
Iowa	1, 7, 13, 14, 15
Kentucky	1, 3, 4, 5, 6, 7, 13, 14, 15
Louisiana	1, 7, 13, 14, 15
Michigan	1, 2, 7, 13, 14, 15
Minnesota	1, 7, 13, 14, 15
Mississippi	1, 7, 11, 12, 13, 14, 15
Nebraska	1, 7, 13, 14, 15
New York	1, 7, 13, 14, 15
Tennessee	1, 7, 13, 14, 15
Vermont	1, 7, 13, 14, 15

SEA notes that it has refined some of the preliminary mitigation measures it presented in the Draft EA to respond to the public and agency concerns. SEA's changes include the following:

- **Condition 1:** SEA clarified the time frame during which the Applicants shall comply with "key train" guidelines.

- **Condition 3:** SEA clarified the timing for the Applicants' distribution of hazardous materials emergency response plans.

- **Condition 7:** SEA added this condition, which would require the Applicants to notify appropriate agencies in the event of a reportable hazardous materials release.

- **Condition 10:** SEA clarified that the Applicants' would also provide reasonable travel expenses for representatives of emergency response organizations to attend a training session at AAR's Transportation Technology Center.

- **Conditions 11 and 12:** SEA clarified that the Applicants be required to apply these conditions to all five construction projects related to the proposed CN/IC Acquisition.

SAFETY: HAZARDOUS MATERIALS TRANSPORT CONDITIONS

Condition 1. The Applicants shall comply with current Association of American Railroads (AAR) "key train" guidelines and any subsequent revisions

for a period of three years from the effective date of the Board's final written decision or during any longer oversight period that the Board might establish. (See "Recommended Railroad Operating Practices for Transportation of Hazardous Materials," AAR Circular No. OT-55-B.)

AAR guidelines define key trains as any trains with five or more tank carloads of chemicals classified as a poison inhalation hazard or any train with a total of 20 rail cars with any combination of poison inhalation hazards, flammable gases, explosives, or environmentally sensitive chemicals. AAR key train guidelines include measures for a maximum operating speed of 50 mph and full train inspections by the train crew whenever a train is stopped by an emergency application of the train air brake or following the report of a defect by a wayside defect detector.

Condition 2. The Applicants shall continue to manage the four rail line segments listed in Table 3-2, "Rail Line Segments that Warrant Hazardous Materials (Key Route) Mitigation," as Key Routes for a period of three years from the effective date of the Board's final written decision or during any longer oversight period that the Board might establish. The Applicants shall certify to the Board compliance with AAR's Key Route guidelines on these rail line segments prior to implementing the proposed CN/IC Acquisition and annually for the compliance period specified above. (See "Recommended Railroad Operating Practices for Transportation of Hazardous Materials," AAR Circular No. OT-55-B.)

TABLE 3-2
RAIL LINE SEGMENTS THAT WARRANT HAZARDOUS MATERIALS (KEY ROUTE) MITIGATION

Route and Segment(s)	Length (miles)	Rail Line Segment ID
Detroit Intermodal, MI to Mal Junction, MI	14.6	1222
Mal Junction, MI to Pontiac, MI	0.9	1225
Pontiac, MI to West Pontiac, MI	2.2	1230
West Pontiac, MI to Durand, MI	38.3	1235

Condition 3.

The Applicants shall distribute a copy of their current hazardous materials emergency response plans to each local emergency response organization or coordinating body in the communities along the four Key Route rail line segments listed in Condition No. 2 and the ten Major Key Routes rail line segments listed in Condition No. 4. The Applicants shall certify to the Board compliance with this condition within six months of the effective date of the Board's decision. In addition, for a period of three years from the effective date of the Board's final written decision, the Applicants shall distribute hazardous materials emergency response plans at least once or whenever they materially change their plans in a manner that affects coordination with the local emergency response organizations.

Condition 4.

The Applicants shall work with each local emergency response organization or coordinating body in the communities along the ten rail line segments listed in Table 3-3, "Rail Line Segments that Warrant Hazardous Materials Emergency Response (Major Key Route) Mitigation," to develop a local hazardous materials emergency response plan to be implemented in coordination with the Applicants' hazardous materials emergency response plans. The individual plans shall be consistent with the National Response Team Guidance documents NRT-1 (*Hazardous Materials Emergency Planning Guide*), NRT-1A (*Criteria for Review of Hazardous Materials Emergency Plans*), and the U.S. Environmental Protection Agency's *Technical Guidance for Hazardous Analysis* or other equivalent documents that are used by the affected community's local emergency response organization or coordinating body. The Applicants shall certify to the Board compliance with this condition within one year of the effective date of the Board's final written decision.

TABLE 3-3
RAIL LINE SEGMENTS THAT WARRANT HAZARDOUS MATERIALS EMERGENCY RESPONSE (MAJOR KEY ROUTE) MITIGATION

Route and Segment(s)	Length (miles)	Rail Line Segment ID
Matteson (EJE), IL to Kankakee, IL	26.6	187
Kankakee, IL to Otto, IL	5.2	190
Otto, IL to Gilman, IL	20.6	205
Gilman, IL to Champaign, IL	46.3	305
Champaign, IL to Mattoon, IL	45.1	315
Edgewood, IL to Centralia, IL	37.3	360
Centralia, IL to Renlakmine, IL	23.5	365
Renlakmine, IL to Du Quoin, IL	11.7	370
Carbondale, IL to Cairo, IL	54.4	380
Cairo, IL to Fulton, KY	43.5	385

Condition 5. The Applicants shall implement a simulation emergency response drill or training session with the voluntary participation of local emergency response committees or coordinating bodies in affected communities along each Major Key Route identified in Condition 4. The Applicants shall certify to the Board compliance with this condition within two years of the effective date of the Board's final written decision.

Condition 6. The Applicants shall provide dedicated toll-free telephone numbers to the emergency response organizations or coordinating bodies responsible for each community located along the four rail line segments identified in Condition 2 and the ten rail line segments identified in Condition 4. These telephone numbers shall provide access to personnel 24 hours per day, seven days per week, at the Applicants' dispatch centers where local emergency responders can quickly obtain and provide information regarding the transport of hazardous materials on a given train and appropriate emergency response procedures in the event of a train accident or hazardous materials release. The Applicants need not provide these telephone numbers to the public. Before increasing Acquisition-related hazardous materials traffic on these rail line segments, the

Applicants shall certify to the Board that they have complied with

this condition.

Condition 7. As requested by the U.S. Fish and Wildlife Service (FWS), the Applicants shall notify and consult with FWS and the appropriate state departments of natural resources in the event of a reportable hazardous materials release with the potential to affect listed threatened or endangered species.

ENVIRONMENTAL JUSTICE CONDITIONS

Condition 8. The Applicants shall, with the advice and consideration of responsible local governments, adapt and modify the local component of its required hazardous materials emergency response plan to account for the special needs of minority and low-income populations adjacent to or in the immediate vicinity of the rail line segments in Table 3-4, "Communities that Warrant Tailored Hazardous Materials Emergency Response Mitigation." The Applicants shall certify compliance with this condition within one year of the effective date of the Board's final written decision.

TABLE 3-4
COMMUNITIES THAT WARRANT TAILORED HAZARDOUS MATERIALS EMERGENCY RESPONSE MITIGATION

Community, State	Route and Segment(s)	Rail Line Segment ID
Cairo, IL	Carbondale, IL to Cairo, IL Cairo, IL to Fulton, KY	380 385
Carbondale, IL	Carbondale, IL to Cairo, IL	380
Centralia, IL	Edgewood, IL to Centralia, IL Centralia, IL to Renlakmine, IL	360 365
Du Quoin, IL	Renlakmine, IL to Du Quoin, IL	370
Mounds, IL	Carbondale, IL to Cairo, IL	380

Condition 9. The Applicants shall provide Operation Respond software and any necessary training to the local emergency response center serving minority and low-income populations adjacent to or in the immediate vicinity of Applicants' rail line segments in the communities listed in Condition 8. The Applicants shall certify compliance with this condition within one year of the effective date of the Board's final decision.

Condition 10. As agreed to by the Applicants, the Applicants shall provide funds for

two representatives of the emergency response organizations from each community listed in Condition 8 to attend a training session at AAR's Transportation Technology Center in Pueblo, Colorado. Such funding shall include reasonable travel expenses.

CONSTRUCTION CONDITIONS

Conditions 11 and 12 apply to the five Acquisition-related construction activities listed in Table 3-5, "Proposed Construction Projects," as appropriate, to reduce or avoid the potential for environmental impacts resulting from the proposed CN/IC Acquisition.

TABLE 3-5
PROPOSED CONSTRUCTION PROJECTS

State	Location	Description
Illinois	Centralia Yard	Upgrade project.
Illinois	Champaign Yard	Upgrade project.
Illinois	Cicero	Construct a new 1,000-foot connection.
Mississippi	Jackson Yard	Construct 2,140 feet of new rail for a bypass west of the rail yard.
Tennessee	Memphis Yard	Upgrade project.

Condition 11. For all proposed CN/IC Acquisition-related construction activities noted in Table 3-5, "Proposed Construction Projects," the Applicants shall employ the Best Management Practices presented in Attachment 3-A, "Best Management Practices for Construction Activities."

Condition 12. For all proposed CN/IC Acquisition-related construction activities noted in Table 3-5, "Proposed Construction Projects," the Applicants shall comply with the following Federal, state, and/or local regulations, which have particular applicability in mitigating potential environmental impacts:

Hazardous and Solid Waste Handling

a) Applicants shall observe all applicable Federal, state, and local regulations regarding the handling and disposal of any waste materials, including hazardous waste, encountered or generated during construction activities. In the event of a hazardous waste spill resulting from proposed construction activities, the Applicants shall implement appropriate emergency response and notification procedures and the appropriate remediation measures as required by applicable

Federal, state, and local regulations.

b) Applicants shall transport all hazardous materials generated by all proposed construction activities in compliance with DOT's Hazardous Materials Regulations (49 CFR Parts 171 to 179).

c) Applicants shall dispose of all materials that cannot be reused in accordance with applicable Federal, state, and local solid waste management regulations.

Dust Control

d) Applicants shall comply with all applicable Federal, state, and local regulations to control and minimize fugitive dust emissions resulting from construction activities. Compliance may involve the use of such control methods as spraying water, installing wind barriers, or providing chemical treatment.

Water Resources Protection

e) Applicants shall obtain all necessary Federal, state, and local permits for the alteration of wetlands, ponds, lakes, streams, or rivers or if a likelihood exists for construction activities to cause soil or other materials to enter into these water resources. Applicants also shall use Best Management Practices to minimize other potential environmental impacts on water bodies, wetlands, and navigation (see Attachment 3-A, "Best Management Practices for Environmental Conditions No. 7 and 8").

Stormwater Discharge

f) Applicants shall obtain all necessary Federal, state, and local permits for stormwater discharge, including National Pollutant Discharge Elimination System permits, during construction activities.

Use of Herbicides

g) Applicants shall use only Environmental Protection Agency-approved herbicides and qualified personnel or contractors for application of right-of-way maintenance herbicides and shall limit such applications to the extent necessary for rail operations.

SAFETY INTEGRATION CONDITIONS

Condition 13. The Applicants shall comply with the Safety Integration Plan, which may be modified and updated as necessary to respond to evolving conditions.

Condition 14. The Applicants shall participate and fully cooperate with the ongoing regulatory activities associated with the safety integration process, as described in the MOU agreed to by the Board and FRA, with the concurrence of DOT, until FRA affirms to the Board in writing that integration of the Applicants' systems has been completed safely and satisfactorily.

MONITORING AND ENFORCEMENT CONDITION

Condition 15. If there is a material change in the facts or circumstances upon which the Board relied in imposing specific environmental mitigation conditions in this Decision and upon petition by any party who demonstrates such material change, the Board may review the continuing applicability of its final mitigation, if warranted.

[This Page Intentionally Left Blank]

ATTACHMENT 3-A
Best Management Practices for Construction Activities

1. Applicants shall restore any adjacent properties disturbed during right-of-way construction or abandonment-related activities to pre-construction or pre-abandonment conditions.

2. Applicants shall encourage regrowth in disturbed areas and stabilize disturbed soils according to standard construction practices or as required by construction permits.

3. Applicants shall use appropriate signs and barricades to control traffic disruptions during construction or abandonment-related activities at or near any highway/rail at-grade crossings.

4. Applicants shall restore roads disturbed during construction or abandonment-related activities to conditions required by state and local jurisdictions.

5. Applicants shall control temporary noise from construction or abandonment-related equipment through use of work-hour controls, operation and maintenance of muffler systems on machinery, and/or other noise reduction methods.

6. If Applicants find previously unknown archeological remains during construction or abandonment-related activities, they shall immediately cease excavation work in the area and contact the appropriate State Historic Preservation Office for guidance and coordination.

7. Applicants shall use appropriate technologies, such as silt screens and straw bale dikes, to minimize soil erosion, sedimentation, runoff, and surface instability during construction or abandonment-related activities. Applicants shall disturb the smallest area possible around any streams and tributaries and shall consult with the appropriate state agent to properly revegetate disturbed areas immediately following construction or abandonment-related activities.

8. Applicants shall ensure that all culverts are clear of debris to avoid potential flooding and stream flow alteration.

9. Applicants shall design and construct proposed construction/abandonment activities so as to preserve effective drainage to maintain the quality of adjacent prime farmland.

10. Applicants shall use appropriate techniques to minimize potential environmental impacts on water bodies, wetlands, and navigation, including the following specific measures:

    a) If necessary, Applicants shall avoid impacts or losses to wetlands wherever possible. If wetland impacts are unavoidable, Applicants must demonstrate that no practicable alternatives that would avoid or further minimize impacts to wetlands are available. Applicants shall compensate for unavoidable wetland losses at ratios determined by the U.S. Army Corps of Engineers and FWS as to type of wetland affected on a site-

by-site basis.

b) If necessary, Applicants shall design and replicate compensatory wetlands to match as closely as possible the specific mix of types, functions, and values of the affected wetlands. The compensatory wetlands shall be established via the process of restoration to the extent feasible, and they shall be located in an area as close as practicable to the affected wetlands.

11. Applicants shall ensure that abandonment-related activities are designed to preserve land forms and drainage patterns that may provide flood protection.

12. Applicants shall ensure that for any construction project, new lighting fixtures installed in new parking and security areas adjacent to residential zoned areas shall be cut off or shielded to avoid effects to residences.

13. Applicants shall compensate for trees removed during project activities. Applicants shall replace trees with native saplings, if practicable, at a minimum ratio of 1:1, and replacement shall occur as close as possible to the affected areas.

14. Applicants shall establish a staging area for construction equipment in environmentally nonsensitive areas to control erosion and spills.

15. Should project activities affect previously unidentified threatened or endangered species and/or their habitat, Applicants shall immediately cease project activities and contact the FWS and the appropriate State Department of Natural Resources for guidance and coordination.

16. Applicants shall use established standards for recycling or reuse of construction materials such as ballast and rail ties. When recycling construction materials is not a viable option, Applicants shall specify disposal methods of materials, such as rail ties and potentially contaminated surrounding soils and ballast materials, to ensure compliance with applicable solid and hazardous waste regulations.

17. Applicants shall develop a vibration specification for any proposed construction activities associated with the proposed CN/IC Acquisition that involve pile driving, major excavation, or demolition.

SEE PRINTED VERSION FOR THE REMAINDER OF THIS DOCUMENT