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**POST ENVIRONMENTAL ASSESSMENT**

**STB FINANCE DOCKET NO. 34836**

**Arizona Eastern Railway – Construction and Operation –  
In Graham County, Arizona**



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## EXECUTIVE SUMMARY

### ES.1 INTRODUCTION

On August 4, 2006, the Arizona Eastern Railway (AZER) filed a petition with the Surface Transportation Board (Board) seeking an exemption under 49 United States Code (U.S.C.) 10502 from prior approval requirements of 49 U.S.C. 10901 for authority to construct and operate 12 miles of new rail line in Graham County, Arizona (AZ). The Board, pursuant to 49 U.S.C. 10901, is the agency responsible for granting authority for the construction and operation of new rail line facilities. The Board, through the Section of Environmental Analysis (SEA), is the lead agency responsible for the preparation of this Environmental Assessment (EA). The Federal Railroad Administration (FRA) is a cooperating agency in this EA because AZER has indicated that it may seek Federal funds from FRA's Railroad Rehabilitation and Improvement Financing Program to construct the rail line.

The Proposed Action is the construction and operation of a new rail line to connect the Freeport-McMoRan Dos Pobres Mine (the Mine)<sup>1</sup> with the existing 133.5-mile AZER line that operates between Miami, Arizona and Bowie, Arizona. The proposed rail line would begin near the City of Safford, Arizona, at AZER milepost 1133.5, known as the "Lone Star Junction" and proceed northerly for 12.1 miles, terminating at the Mine. The proposed line would cross agricultural and undeveloped lands and the Gila River, and then would turn in a northeast direction toward the Safford Regional Airport (the Airport). The proposed rail line would cross U.S. Highway 70 west of the San Simon River and east of the City of Safford. The proposed rail line would also cross four unimproved roads: Airport Road, Lone Star Mountain Road, San Juan Road, and Phelps Dodge Road. The crossing at US 70 would consist of a signalized at-grade crossing, including warning lights and automated gates. The other roadway crossings, where traffic volumes are generally low, would consist of signed at-grade crossings with warning lights. Rail traffic on the proposed rail line is anticipated to be one round trip per day, seven days a week, each day of the year. Each train is anticipated to comprise 20 to 25 railcars, powered by two GP-35 locomotives from AZER's existing in-service fleet. Commodities anticipated to be transported include sulfuric acid in tanker cars for use at the Mine, and copper cathodes in boxcars, transported from the Mine to the main AZER rail line.

#### ES.1.1 BOARD'S OBLIGATIONS UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT

SEA prepared a Draft Environmental Assessment (EA), dated February 25, 2008, to meet the Board's obligations under the National Environmental Policy Act (NEPA). The Draft EA identified and evaluated the potential direct, indirect, and cumulative environmental impacts of the Proposed Action.<sup>2</sup>

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<sup>1</sup> Freeport-McMoRan, Inc., acquired the Phelps Dodge Corporation (PDSI) in late 2006. The Draft EA did not reflect this corporate acquisition.

<sup>2</sup> The Draft EA can be downloaded from the Board's website at [www.stb.dot.gov](http://www.stb.dot.gov). Go to "E-Library," click on "Decisions & Notices," and then conduct a full text search for the material under "FD 34836."

The Draft EA was made available to the public on February 25, 2008 with a 36 day comment period that ended on March 31, 2008. Although CEQ regulations do not prescribe a specific time limit for the comment period on EAs, it is the Board's practice to typically provide 30 days. However, in response to requests by the public, on April 2, 2008, the Board issued a notice to all interested parties that extended the comment period to May 1, 2008, for a total comment period of 66 days. Accordingly, the opportunity for public comment here has been fully adequate.

### **ES.1.2 PROJECT SCOPING AND ISSUES**

The Board actively consulted with a number of Federal, state, and local agencies to inform them about the proposed construction and operation, to identify issues of concern, and to obtain information about environmental resources within the project area.

On June 13, 2006, SEA sent consultation letters to Federal, state, and local agencies describing the Proposed Action, showing the proposed rail alignment, and requesting that any concerns be identified. Early consultation was conducted to provide input as early as possible in the environmental review process, prior to preparation of the EA. SEA continued following up with a number of these agencies throughout the development of the EA in 2006 and 2007, as well as through finalization of the EA in 2009.

The EA was made available to agencies, the public, and interested parties for a 66-day public comment period. Twenty-five comment letters on the EA were received, and SEA has prepared this Post EA to respond to those comments and make final environmental recommendations.

### **ES.1.3 BOARD JURISDICTION**

The Board has exclusive jurisdiction under Sections 10901 and 10501 of the Interstate Commerce Act over the construction, acquisition, and operation of common carrier rail lines. The Board's authorization may take the form of a "certificate of public convenience and necessity" issued under 49 U.S.C. 10901, or, as in this case, an exemption under 49 U.S.C. 10502 from the formal application procedures of Section 10901. Whether authorization is sought under the procedures of Section 10502, or Section 10901, the Board subjects the proposal to a careful review, including preparation of the environmental documentation required to meet the Board's obligations under NEPA. In this case, SEA prepared a Draft EA, which considered in detail the expected environmental impacts of the Proposed Action.

In 1995, Congress enacted a broad Federal preemption provision, Section 10501(b) that expressly makes the Board's jurisdiction "exclusive" for all transportation by rail carriers, including the facilities and structures that are an integral part of that transportation.<sup>3</sup> Section 10501(b) also expressly states that "the remedies provided under this part are exclusive and preempt the remedies provided under Federal and State law." Thus, Section 10501(b) does not permit dual state and Federal regulation of railroads or activities related to rail transportation at railroad facilities. Accordingly, the case law interpreting this provision consistently has found

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<sup>3</sup> 49 U.S.C. 10102(9); 10501(b).

state and local permitting or preclearance requirements (including zoning ordinances and environmental and land use permitting requirements) to be wholly preempted where the railroad facility is an integral part of the railroad's operations.<sup>4</sup> That is because permitting or preclearance requirements could give a local body the ability to deny the carrier the right to construct, develop, and maintain facilities or conduct operations, which would create an irreconcilable conflict with the Board's exclusive jurisdiction over those facilities and operations.<sup>5</sup>

But while exempt from traditional permitting, zoning, and land use processes for their railroad operations, railroads like AZER are not necessarily exempt from other generally applicable laws. The legislative history makes it clear that "the States retain the police powers reserved by the Constitution."<sup>6</sup> Thus, States can take appropriate actions to protect public health and safety so long as their actions do not serve to regulate rail operations or unreasonably interfere with interstate commerce.<sup>7</sup>

For example, a state or local government could issue citations or seek damages if harmful substances are discharged during a railroad construction or upgrading project. Similarly, nondiscriminatory application of state and local requirements such as building and electrical codes generally would not be preempted.<sup>8</sup> And railroads cannot avoid their obligations under consensual measures worked out between the railroad and the community.<sup>9</sup> Section 10501(b) must also be harmonized to the extent possible with other Federal statutes.<sup>10</sup> Thus, Federal environmental statutes such as the Clean Air Act (CAA) and the Clean Water Act (CWA)—statutory schemes that are implemented in part by the states—as well as railway safety regulation under the Federal Railway Safety Act—continue to apply to railroads to the extent that they would not unreasonably interfere with interstate commerce. Finally, state and local entities can raise their environmental concerns before the Board during the environmental review process under NEPA for consideration in cases like this one that require a license from the Board.<sup>11</sup>

In cases that trigger a NEPA review, the Board's mitigation may include conditions that require a railroad to consult with or seek approvals from other government entities, when the Board is reasonably confident that those requirements will not be applied in a discriminatory manner or in a manner that would interfere with the railroad's right to conduct its operations. Where the Board imposes a condition that a railroad applicant meet the reasonable

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<sup>4</sup> City of Auburn v. United States, 154 F.3d 1025 (9th Cir. 1998) (Auburn); Friberg v. Kan. City S. Ry., 267 F.3d 439 (5th Cir. 2001); Norfolk S. Ry. v. City of Austell, 1997 U.S. Dist. LEXIS 17236 (N.D. Ga. Aug. 18, 1997); Flynn v. Burlington N. Santa Fe Corp., 98 F. Supp. 2d 1186 (E.D. Wash. 2000); Joint Pet. for Decl. Order—Boston & Maine Corp. v. Town of Ayer, MA, STB Finance Docket No. 33971 (STB served May 1, 2001), aff'd, Boston & Maine Corp. v. Town of Ayer, 206 F. Supp. 128 (D. Mass. 2002), rev'd solely on attorneys' fee issue, 330 F.3d 12 (1st Cir. 2003) (Ayer); Borough of Riverdale — Pet. for Declar. Order — The New York Susquehanna & W. Ry., STB Finance Docket No. 33466 (STB served Sept. 10, 1999).

<sup>5</sup> Auburn, 154 F.3d at 1029-31.

<sup>6</sup> H.R. Rep. No. 104-311, 104th Cong., 1st Sess. at 95-96 (1995).

<sup>7</sup> See Ayer.

<sup>8</sup> Id.

<sup>9</sup> Township of Woodbridge v. Consol. Rail Corp., No. 42053 (STB served Dec. 1, 2000).

<sup>10</sup> Tyrrell v. Norfolk S. Ry., 248 F.3d 517 (6th Cir. 2001); Friends of the Aquifer et al., STB Finance Docket No. 33966 (STB served Aug. 15, 2001).

<sup>11</sup> See Auburn, 154 F.3d at 1033.

requirements of other government entities as a condition to a license from the Board, the Board controls the process and can take steps later, if necessary, to ensure that the state law is not being applied in such a way as to unduly restrict a railroad's operations or unreasonably burden or interfere with interstate commerce.

### **ES.1.3 BOARD DECISIONS**

By petition filed on August 4, 2006, AZER requested that the Board conditionally grant an exemption under 49 U.S.C. 10502 from the prior approval requirements of 49 U.S.C. 10901 for authority to construct and operate a 12-mile rail line in Graham County, Arizona. In a decision served on November 2, 2006, the Board instituted a proceeding under 49 U.S.C. 10502(b). On June 28, 2007, AZER requested a waiver for 49 CFR 1105.6(a), which generally provides for the preparation of an environmental impact statement for a rail line construction approval. On August 23, 2007, the Board granted the requested waiver, based on information provided to date indicating that the Proposed Action would not result in significant environmental impacts and that any impacts can most likely be addressed through appropriate mitigation measures. The Board's letter regarding the requested waiver is included as Appendix B.

### **ES.2 PURPOSE AND NEED FOR THE PROPOSED ACTION**

According to AZER, the Proposed Action is needed to provide the Mine and Airport with an alternative to truck shipment of materials. Figure ES-1 of the Draft EA illustrates the proposed rail alignment and the project area.

The Mine, which opened for operations in December 2007, receives shipments of sulfuric acid and sends out shipments of copper cathodes via trucks, which travel predominantly on U.S. Highway 70. More specifically, approximately 60 to 80 truckloads of sulfuric acid are transported daily to the Mine from an existing Freeport-McMoRan facility at Miami, approximately 90 miles to the west of the City of Safford. About 15 loads of copper cathodes are in turn transported each day from the Mine back to the Miami facility or to the Union Pacific (UP) rail line at Bowie.

The Airport is considering the development of a business park with light industrial uses on property owned by the Airport. The light industrial uses would most likely require the movement of raw materials and goods in and out of the Airport area. The proximity of the proposed rail line to the Airport would allow for potential future freight rail service. Business park development details are unknown at this time, but as part of the transportation analysis conducted for the Proposed Action, train lengths were assumed to include a range of five to ten cars daily that potentially would be available to serve business park uses near the Airport.

The Proposed Action would reduce or avoid the level of truck traffic on local and regional roadways by providing an efficient and cost-effective alternative for the transport of commodities to and from both the Mine and the potential future development associated with the Airport.

## ES.3 ALTERNATIVES

### ES.3.1 PROPOSED ACTION

The Proposed Action consists of the construction and operation of a new rail line to connect the Mine with the existing 133.5-mile AZER line that operates between Miami, Arizona, and Bowie, Arizona. AZER connects with the UP railroad near Bowie.

The proposed rail line would begin near Safford, Arizona, at AZER milepost (MP) 1133.5, known as “Lone Star Junction.” From this point, the proposed rail line would proceed northerly for 12.1 miles, terminating at the Mine. The proposed rail line would cross U.S. Highway 70 west of the San Simon River as well as four unimproved roads north of the Gila River (Airport Road, Lone Star Mountain Road, San Juan Mine Road, and Phelps Dodge Road). The crossing at U.S. Highway 70 would consist of a signalized at-grade crossing, including warning lights and automated gates. The other roadway crossings, where traffic volumes are generally low, would consist of signed at-grade crossings, with warning lights.<sup>12</sup>

The right-of-way being considered for the proposed rail line would be no greater than 100 feet wide along the entire alignment. Within this right-of-way a single rail track, approximately 8.5 feet in width, would be constructed. This rail line would be located adjacent to a service road that would be approximately 12 feet in width, and bordered by a drainage ditch. Figure 2.2 of the Draft EA contains typical track sections, including sections at proposed road crossings.

South of the Gila River, the proposed rail line would also cross the Montezuma, Union, and Tidwell irrigation canals, as well as a currently unnamed irrigation canal. The proposed rail line would cross the Gila River on a new bridge approximately 1,600 feet in length. The bridge’s length would provide 1,500 feet of opening between the north and south banks of the Gila River, to minimize bridge related flooding impacts.

The proposed Gila River bridge superstructure would be composed of precast, pre-stressed concrete I-girders with a composite concrete deck. Preliminary geotechnical recommendations indicate that deep foundations (composed of drilled shafts) are the most appropriate foundation system at both the bridge’s piers and abutments. Known seismic and soil conditions in the area indicate that drilled shaft foundations should be socketed into the lower basin fills. The abutments would consist of a concrete beam supported by a single line of two drilled shafts. A 2:1 embankment slope would be constructed in front of each abutment. Preliminary geotechnical investigation indicates that approximately five to six drilled shafts would be required for each abutment, with embedment depths of 60 feet at the north abutment and 115 feet at the south abutment.

North of the Gila River crossing, the proposed rail line would turn in a northeast direction towards the Airport. The proximity of the proposed rail line to the Airport would allow for potential future freight rail service to a planned business park area adjacent to the Airport.

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<sup>12</sup> A “signed crossing” is an at-grade rail crossing of a public road accompanied by a posted sign indicating the presence of railroad tracks. A “signalized crossing” includes a flashing light or signal that is activated by an approaching train.

The proposed rail line would handle one round trip per day, consisting of 20 to 25 rail cars powered by two locomotives, seven days a week. Commodities transported would include sulfuric acid in tanker cars for use at the Mine, and copper cathodes in boxcars, transported from the Mine to the main AZER rail line. Early plans for the Proposed Action estimated that three locomotives would be required for each train. Several technical studies developed for this report used this estimate. However, subsequent engineering by AZER determined that only two locomotives would be necessary. Project technical studies were largely not updated to reflect this change, insofar as the reduction in the number of locomotives would not introduce any new adverse environmental effects. In fact, the reduced number of locomotives would incrementally reduce the degree of several environmental effects, including noise, vibration, and air quality. The analyses also included 30 rail cars, five of which could be used to serve potential business park development near the Airport.

The proposed rail line would cross properties owned or controlled by private individuals, Freeport-McMoRan, the City of Safford, and the State of Arizona. Approximately 7.7 miles of the 12.1 miles of the proposed rail line are located north of the Gila River and on land owned by Mine operator Freeport-McMoRan.

### **ES.3.2 NO-ACTION ALTERNATIVE**

Under this alternative, AZER would not construct a proposed rail line from AZER's mainline to the Mine and would therefore provide neither the Mine nor the Airport area with freight rail service. Approximately 60 to 80 truckloads of sulfuric acid would continue to be transported round-trip each day along existing local roads from Freeport-McMoRan's existing facility at Miami, Arizona, to the Mine, a distance of about 95 miles. Approximately 15 truckloads of copper cathodes from the Mine would be returned along existing local roads to the Miami facility or to the UP rail line at Bowie, Arizona. These operations occur at present.

### **ES.3.3 ALTERNATIVES CONSIDERED BUT REJECTED**

A number of alignment alternatives for the Proposed Action were studied by AZER and rejected from further consideration using standardized technical and environmental criteria. SEA reviewed and verified AZER's analyses. The alternatives included several alignment options for the southern portion of the proposed rail line, from AZER's main line to north of the Airport. The northern portion of the proposed rail line, on property owned by Freeport-McMoRan, was identical for all alternatives discussed below. Figure 2.1 in the Draft EA provides a map of the full length of the proposed rail line; Figure 2.3 in the Draft EA provides a map of the alternatives considered but rejected.

Section 2.3 of the Draft EA describes the process used to evaluate alignment alternatives and to make feasibility and practicability determinations. While alignment alternatives were similar in many technical and environmental factors, a number of factors (described below) differ between alternatives. These factors are shown in Table 2.3-1 of the Draft EA.

### **ES.4 OVERVIEW OF AFFECTED ENVIRONMENT**

The project area is located entirely within Graham County, Arizona. A portion of the project area traverses lands that are owned by but located outside the corporate limits of the City of Safford, Arizona.

Land uses in the project area are regulated by Graham County and the City of Safford. Regulations governing land use are set forth in the Graham County Comprehensive Plan and the City of Safford General Plan.

Graham County is in the southeastern portion of Arizona. The County seat is located in Safford, which is also Graham County's largest city, encompassing 7.9 square miles. Graham County is 4,630 square miles in size.

The project area is primarily located on privately owned land. Exceptions include U.S. Highway 70, owned by ADOT, and parcels near the Airport, owned by the City of Safford.

## **ES.5 SUMMARY OF SEA'S CONCLUSIONS AND RECOMMENDED MITIGATION**

Based on its independent analysis of all information available to date, SEA concludes that the Proposed Action would not result in any significant environmental impacts if the mitigation measures recommended in this Post EA are imposed and implemented.

Accordingly, SEA recommends that, in any decision by the Board granting final approval to the proposed construction and operation of the Proposed Action, AZER should be required to implement the mitigation set forth in Chapter 1 of this Post EA. SEA recommends 40 mitigation measures in the Post EA that are either new mitigation measures based on SEA's additional analysis or modifications to mitigation measures previously proposed in the Draft EA.

SEA's final recommended mitigation would reduce or avoid any potential for significant environmental impacts associated with such issues as traffic safety, flooding impacts, and the transportation and handling of hazardous materials. Because the Proposed Action, as mitigated, would not have the potential for significant environmental effects, preparation of an EA for this case is appropriate and the full Environmental Impact Statement (EIS) process is unnecessary.

The Board will now consider the entire environmental record, including SEA's final recommended mitigation measures and all environmental comments received in this proceeding, in making its final decision as to whether to approve the Proposed Action, and if so, what mitigation to impose.