



## ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

### Project Background

Big River Steel LLC is constructing a new steel production and recycling facility on an approximately 1,300 acre site located south of Osceola in Mississippi County, Arkansas. This facility is designed to incorporate state-of-the-art air pollution control technologies and techniques, as well as energy-efficient mechanical and process equipment. Big River will also take advantage of world-class technology, a proven leadership team and an ideal location to minimize its impacts on the environment. Big River is a technologically advanced flex mill™ that recycles scrap metal into new steel products. As such, steel producers like Big River are large recycling operations.

### Project Description

Big River is constructing its flex mill south of the city of Osceola in Mississippi County, Arkansas (refer to site location map below) and will be constructed in several phases. Phase I will involve specific process operations capable of producing 1.6 million short tons/year of flat-rolled steel products. Subsequent phases will involve additional product lines and the capability of producing an additional 1.6 million short tons/year of flat rolled steel products. Upon completion of all phases, Big River will be capable of producing in excess of 3 million short tons/year of flat-rolled steel products. The products to be produced at the end of all phases will consist of hot and cold rolled steels, galvanized, grain and non-grain oriented steels and certain other grades that fit within these broad categories. Big River will implement state-of-the-art air pollution control technology and advanced water pollution control technology. As a result, the potential air pollutant emission and water pollution sources associated with the mill will not have an adverse impact on human health and welfare.



 Location of Big River Steel Scrap to Steel Products Plant

## Environmental Benefits of the Project

Recycled scrap constitutes over 90 percent of the material input of electric arc furnace (EAF) steel producers. The recycling of steel scrap in EAFs plays an important role in the conservation of energy. Steel produced from melted scrap requires roughly one-third of the energy consumed in the production of steel from iron ore (integrated method of steel production). The recycling of steel scrap reduces the burden of disposal in landfill facilities throughout the nation and prevents the annual accumulation of otherwise abandoned steel products. Big River is, at its very core, a large recycling operation.

## Summary of Key Environmental and Social Baseline Features and Sensitivities

- As part of the air permitting process, air emissions resulting from Big River were shown to result in model predicted ambient concentrations below the National Ambient Air Quality Standards. Therefore, the mill air emissions are not expected to impact human health and welfare. Big River will also be developing internal compliance documentation that will be used to demonstrate compliance with air permit conditions as well as those defined within the general stormwater permit and other permits and authorizations issued to Big River.
- A Native American archeological site was identified near the southeast corner of the Big River site. The company worked with the Department of Arkansas Heritage and the Quapaw Tribe of Oklahoma to protect this archeological site. A barrier has been constructed in order to protect and prevent access to the archeological site. Big River has also entered into a memorandum of agreement with various stakeholders, including the Department of Arkansas Heritage and the Quapaw Tribe of Oklahoma outlining specific measures and procedures to be followed by Big River should additional archeological sites be identified during construction of the flex mill. No additional archeological sites have been identified during construction.
- A wetland delineation study identified certain wetland areas on the site. Big River has and will continue to work closely with the US Army Corps of Engineering (Corps) to ensure that wetland impacts are minimized in compliance with all applicable permit and mitigation requirements.
- Big River conducted an assessment of threatened and endangered species and the habitats for these species at the site. The assessment concludes that the mill would have no effect on any threatened or endangered species. The U.S. Fish and Wildlife Service has confirmed that it agrees with the conclusions reached in the assessment.

## Summary of Environmental Permitting Process

Below is a listing of environmental permits that must be obtained prior to construction and/or commencement of operations of the facility. Several of these permits have already been secured by Big River.

- The Arkansas Department of Environmental Quality (ADEQ) issued an Air Permit to Big River allowing for the construction and operation of the facility.
- The ADEQ has issued a General Stormwater Permit to Big River that will require onsite management practices to be performed by the company and its contractors. These practices will ensure that stormwater runoff will be managed to acceptable pollutant levels.
- The Corps has issued a Clean Water Act Section 404 permit that requires Big River to mitigate impacts to wetlands during construction.

- The Department of Arkansas Heritage has issued a finding that the mill will not have an adverse impact on cultural resources.
- The ADEQ has issued a Clean Water Act Section 401 Water Quality Certification finding that the facility will not have an adverse impact on water quality.
- The ADEQ has issued Short Term Activity Authorizations to ensure that construction of the mill will not degrade water quality.
- The U.S. Fish and Wildlife Service has concluded that the facility will not have an adverse impact on threatened or endangered species.
- The Federal Aviation Authority has determined that the mill will not represent any hazards to air traffic.

In summary, Big River has obtained all of the required permits necessary for the current construction activities of the flex mill. There are certain other permits that Big River will obtain in the ordinary course consistent with the applicable environmental laws and conditions of those permits.

### Impact on Communities, Cultural Property, Heritage and Scenery

Big River is anticipated to have a minimal effect on the city of Osceola's cultural property, heritage and scenery. The facility is located south of the city in an unzoned area. Other industrial facilities are located in the general vicinity and are operational, including a coal-fired power plant, a sausage casing manufacturing facility and a grain elevator operation. Big River has worked with various interested stakeholders, including the Department of Arkansas Heritage, the Quapaw Tribe of Oklahoma, the City of Osceola and Mississippi County officials to ensure that the facility will not affect the cultural property in the area nor the heritage and scenery of the area.

The construction and operation of the mill is expected to have a positive impact on the economic climate of Mississippi County by providing new jobs for the area work force. An estimated 1000 workers, on average, would be at onsite during construction with a peak of 1800 works. During operation, an estimated 525 jobs will be created by the mill, including adjacent support operations. Those jobs will pay well in excess of the current average wage paid in Mississippi County. Commercial growth is anticipated to occur at a sustainable and gradual rate. Potential increases in air emissions from associated growth resulting from the increase in workers traveling to and from work are anticipated to be minimal and should have a minor impact (if any) on the local area.

### Mitigation Measures During Construction and Operation

To minimize any potential environmental impacts during the construction phase, Big River has employed various techniques to minimize the generation and release of fugitive dust that could occur during construction activities. In addition, best management practices have been used to maintain the quality of any stormwater runoff during these construction activities. Big River will be implementing state-of-the-art air emissions controls and best-in-class operating practices of its equipment in accordance with the terms of its air permit. The company will also implement best management practices of its stormwater runoff and pretreatment and management of its process wastewater in order to ensure compliance with state/federal discharge limits and water quality standards.

### Recycling and Waste Management

The recycling of scrap to produce a steel product is excluded from the definition of a solid/hazardous waste.

Expected wastes from the production of steel may include the following:

- EAF emission control dust and sludge;
- Metal dusts not associated with the EAF; and
- Slag.

Big River plans to recycle, and work with others to recycle, a majority of its waste products. EAF dust, pickle liquor, oils and greases, refractory brick, and slag can be recycled and reused in the steelmaking process. For those limited waste streams that may be generated from the facility that cannot be otherwise recycled and may contain hazardous materials the company will comply with all applicable laws and regulations.

## Cumulative Impacts of the Facility

The cumulative impacts of the Facility, when combined with existing commercial and industrial facilities, will not adversely affect human health and welfare or the environment; nor will these impacts restrict future growth in the area. A formal air quality impact analysis was performed in support of the air permit issued by the ADEQ. The outcome of that analysis concluded that the cumulative impact of emissions from the Facility in combination with other nearby industrial facilities will not result in any such adverse impact. Minimal cumulative impacts are anticipated to occur with other environmental media, such as stormwater runoff, wastewater and solid waste generated by the Facility and other nearby industrial facilities. As a result, the cumulative economic benefits inuring to the local community outweigh the risks of any adverse environmental impacts.

## Inquiries

Any inquiries regarding this assessment should be directed to [mediainfo@bigriversteel.com](mailto:mediainfo@bigriversteel.com).