



CERTIFICATION AND FINANCING PROPOSAL

PARTICLE EMISSIONS CONTROL SYSTEM FOR A STEEL MILL IN MONCLOVA, COAHUILA

Submitted: June 8, 2015

CERTIFICATION AND FINANCING PROPOSAL

PARTICLE EMISSIONS CONTROL SYSTEM FOR A STEEL MILL IN MONCLOVA, COAHUILA

M

В					2			
F					3			
В	В	MB						
2.1	Techr	nical Criteria						
	2.1.1.	Project Descrip	tion		3			
	2.1.2.	Technical Feasi	bility		9			
	2.1.3.	Land Acquisition	n and Right-	of-Way Requirements	10			
	2.1.4. Management and Operations							
2.2	Envir	onmental Criter	ia					
	2.2.1.	Compliance wi	th Applicable	Environmental Laws and Regulations	11			
	2.2.2. Environmental Effects/Impacts							
2.3	Finan	cial Criteria			14			
	В ВЕ	s M	M					
3.1	Public	Consultation			15			
3.2		ach Activities			15			

1

EXECUTIVE SUMMARY

PARTICLE EMISSIONS CONTROL SYSTEM FOR A STEEL MILL IN MONCLOVA, COAHUILA

The project consists of the design, installation and operation of an emissions control system to collect particulate matter released to the atmosphere in the basic oxygen furnace 2 (BOF2) process at the *Altos Hornos de Mexico, S.A.B. de C.V.* (AHMSA) steel mill, located in Monclova, Coahuila (the "Project"). This system will consist of dust collectors at the generation points and ductwork to convey the dust to a baghouse, where it will be collected and stored in a silo for reuse. It will have a collection capacity of up to 29,333 cubic meters/minute of particulate matter.¹

The Project will reduce harmful particulate emissions released to the atmosphere in the BOF2 steel production process, improving the air quality in the facilities and surrounding areas.

The anticipated environmental outcomes resulting from the installation of an emission control system are:

- 1) The reduction of approximately 30,070 tons/year of particulate matter;²
- 2) Stack exhaust concentration of less than 60 milligrams/m³ of particulate matter.

216,206 residents of Monclova, Coahuila.

AHMSA.

Minera del Norte, S.A. de C.V. (MINOSA), a subsidiary of AHMSA.

Up to US\$23.2 million.

M

 $^{^{1}}$ Particulate matter is expressed as total suspended particulate (TSP), which includes all particles with aerodynamic diameters less than 100 μ m.

² Estimation provided by the manufacturer of the emissions control system, based on the annual production of steel in the BOF2 process.

CERTIFICATION AND FINANCING PROPOSAL

PARTICLE EMISSIONS CONTROL SYSTEM FOR A STEEL MILL IN MONCLOVA, COAHUILA

F

Project Type

The Project falls into the sector of air quality.

Project Location

The Project is located in the municipality of Monclova, Coahuila, approximately 186 kilometers (115.6 miles) southwest of the U.S.-Mexico border.

Project Sponsor and Legal Authority

The private-sector sponsor is *Altos Hornos de México, S.A.B. de C.V.* (AHMSA or the "Sponsor"), the largest integrated steel company in Mexico. Founded in 1942 as a public-private joint venture, the company, its mines and subsidiaries were privatized in 1991 through a competitive bid process whereby they were acquired by Grupo Acerero del Norte, S.A. de C.V. (GAN).

The proposed loan will be contracted by *Minera del Norte, S.A. de C.V.* (MINOSA), a mining subsidiary of AHMSA, which was originally incorporated in August 1960 as *Minerales Monclova, S.A. de C.V.*, and adopted its current name in November 2009. MINOSA mainly supplies iron ore and coal to its parent company, AHMSA, as well as thermal coal to the Mexican Federal Electricity Commission (CFE) through *CIC Corporativo Industrial Coahuila, S.A. de C.V.* (CICSA). MINOSA's offices are in Monclova, Coahuila, and its contact representative is Carlos Mireles.

B B MB

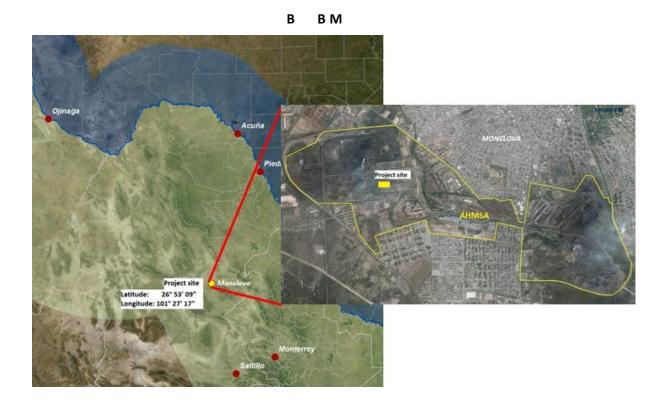
B MB B

2.1.1. Project Description

Geographic Location

The Project is located in the municipality of Monclova, Coahuila, approximately 115.6 miles southwest of the U.S.-Mexico border (at latitude 26° 53′ 09" and longitude 101° 27′ 17"). The

steel mill facilities are located within the city limits of Monclova. Figure 1 shows the approximate geographic location of the Project.



General Community Profile

The municipality of Monclova has a population of 216,206, which represents 7.87% of the state population and grew at an average rate of 1.1% annually over the decade leading up to the census.³ The entire population of Moncolva is expected to benefit from cleaner air as a result of the Project.

In terms of economic activity, manufacturing constitutes the most important sector in Monclova, generating 78.3% of the municipality's gross domestic product (GDP) and employing 28.1% of its working population. Mining represents the second largest sector, generating 4.5% of GDP and employing 1.0% of the work force, followed by retail trade, which accounts for 3.2% of the municipality's GDP and 21.3% of total employment. In general, Coahuila contibutes 3.0% of Mexico's GDP and employs 3.0% of its population.⁴

³ Source: Mexican national statistics institute, *Instituto Nacional de Estadística y Geografía* (INEGI), 2010 general population and housing census.

⁴ Source: INEGI, 2009 economic census, as 2014 census results are not yet available.

AHMSA operates two steel mills covering an area of nearly 3,000 acres in Monclova, and is, therefore, a major source of employment for the local community, providing approximately 10,000 jobs. With its subsidiaries, AHMSA's operations encompass the entire steel production cycle, from the extraction of coal and iron ore to the manufacture of high value-added steel products. It is a national leader in the production and commercialization of flat steel products including hot-rolled coil, wide plate, cold-rolled coil, tinplate and tin-free steel. Through its subsidiaries, it also operates coal and iron ore mines in other municipalities in Coahuila, as well as other parts of the country.

As a community leader, the company has been very active in the socioeconomic development of Monclova. Working in coordination with local authorities and other community organizations, AHMSA has invested in the construction of educational and recreational facilities and roadway improvements, as well as demonstrated its commitment to the environment by applying sustainable industrial practices to protect and ensure the proper use of natural resources important to the region. For example, to reduce demand on potable water sources, in 1995, AHMSA constructed a wastewater treatment plant to eliminate untreated discharges from its facilities and to provide treated effluent for reuse in its production processes. In 2006, the capacity of the treatment plant was increased to 650 liters per second (lps) or 14.8 million gallons a day (mgd), and AHMSA currently reuses 580 lps (13.2 mgd) of the treated effluent.

AHMSA also played a significant role in the development of the regional urban waste management system serving Monclova and four other municipalities in the central region of Coahuila and continues to provide financial support to the entity created to operate the system. As of the end of 2010, more than 1.5 million metric tons of urban solid waste from the five municipalities have been collected and disposed of in the regional landfill.

Local Air Quality

Emission inventories are an essential tool for air quality management and policy-making decisions related to the prevention and control of emissions, as well as for establishing appropriate emission reduction measures for the specific conditions of a state or municipality. The main purpose of the inventories is to identify and classify the sources of emissions, as well as the types and amounts of pollutants emitted by each source. Emissions may be classified as point source, mobile source, natural source and area source. The pollutants typically included in emissions inventories are particulate matter with an aerodynamic diameter of less than 10 micrometers (PM₁₀), particulate matter with an aerodynamic diameter of less than 2.5 micrometers (PM_{2.5}), sulfur dioxide (SO₂), carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOC) and ammonia (NH₃).

Table 1 classifies air pollution emissions by source in the state of Coahuila based on the latest 2008 National Emissions Inventory developed by the Ministry of Environment and Natural Resources (SEMARNAT). In the inventory, the industrial sector in Coahuila consists of 20

⁵ Point sources include the industrial sector. Mobile sources include on-road vehicles such as automobiles, buses, trucks and other as well as off-road vehicles. Natural sources include vegetation. Area sources are those emissions that are too small to be treated as point sources, such as solvents used for surface coating operation, degreasing, graphic arts, dry cleaning, and gasoline stations.

categories, including power generation, chemical industry, storage services, mining, manufacturing, food industry and metallurgy. Emissions from the industrial sector were responsible for 52% of total nitrogen oxides, 99% of sulfur dioxide, 70% of PM_{10} and 75% of $PM_{2.5}$.

B M M M

	M		В	В			M
Area	15,141.84	1,030.58	87,696.83	75,762.91	14,809.92	8,889.52	39,357.85
Point	317,485.63	381,940.16	12,403.46	48,342.02	39,925.27	32,354.58	2,440.06
Mobile	186,130.92	1,985.81	277,582.45	3,124,228.07	2,075.24	1,708.93	5,286.82
Natural	97,177.44	1	196,582.45	-	1	_	-

Source: SEMARNAT, 2008 National Emissions Inventory.

At the municipal level, estimated emissions from the industrial sector in Monclova accounted for 29% of total nitrogen oxides, 99% of sulfur dioxide, 95% of PM_{10} and 95% of $PM_{2.5}$, as shown in the following table.

MB M M M

	M		В	В			M
Area	304.50	4.53	3,130.36	283.94	71.32	47.21	311.85
Point	2,426.81	6,276.66	236.04	5,711.57	2,227.10	1,743.55	713.38
Mobile	5,003.34	62.35	7,191.77	69,947.96	41.61	30.39	161.11
Natural	677.97	-	1,310.95	_	_	_	-

Source: SEMARNAT, 2008 National Emissions Inventory.

In general, industrial activity in major urban centers may be an important source of particulate matter if emissions from the production processes are not controlled or only partially controlled. Air quality in Monclova is a concern since reduced visibility and increased respiratory diseases associated with air pollution are common. These adverse conditions are generated by the amount and type of emissions of the different sources described above.

To monitor air quality conditions around its Monclova facilities, AHMSA installed monitoring stations at various points surrounding the site of the plants (see Figure 2). These stations report average concentrations of total suspended particulate (TSP) in the area emitted from the steel mill, as well as other activities in the area.





Prevailing northbound winds in Monclova contributed to higher concentrations of TSP at the Punto Cero Station (Station 3) and the Punto 8 Station (Station 2), which reported annual mean concentrations of 549.2 micrograms/m³ and 399.2 micrograms/m³, respectively.

In the past few years, the Sponsor has undertaken efforts to reduce particulate emissions by installing 24 control systems in various AHMSA production processes. Currently, the AHMSA facilities emit approximately 31,000 metric tons per year of TSP from secondary processes in the Basic Oxygen Furnace 2 (BOF2) production area, that are not conveyed to an emission control system. As part of AHMSA's ongoing efforts to improve air quality, the proposed Project will reduce TSP emissions by approximately 97%, thus complying with the requirements of SEMARNAT and Mexico's environmental enforcement agency, PROFEPA. More details are provided in Section 2.2.

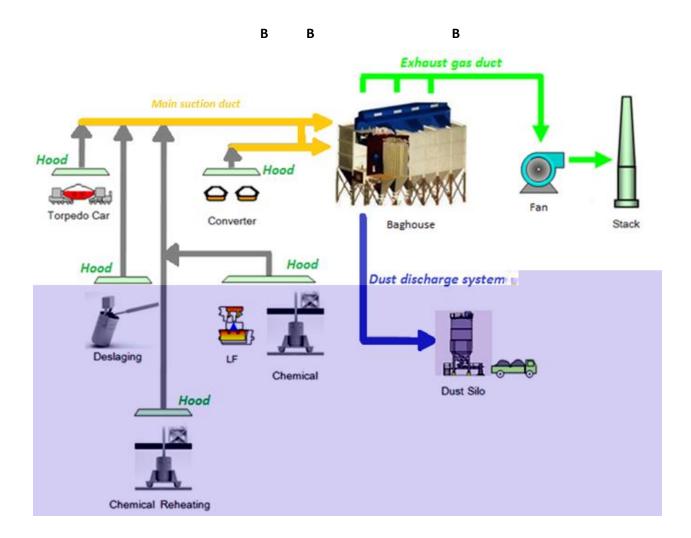
Project Scope and Design

The scope of the Project is to design, install, and operate an emission control system with a collection capacity of up to 29,333 m³/min of particulate matter emitted by the BOF2 secondary production activities at the steel mill workshop in AHMSA facilities in Monclova. The system is comprised of ducts and hoods or collectors installed at each point of generation to transport the particulate matter to a fabric filter emission control system called a pulse-jet baghouse.⁶ The

⁶ This technology includes a cleaning process that uses compressed air to force a burst of air down through the wire-caged bag to remove dust from the filter media.

baghouse will collect the dust with up to 97% efficiency. The dust will be stored in a dust silo for reuse in the production process.

As shown in Figure 3, dust emissions will be collected from five secondary BOF2 production processes: Converter 1 and 2, Torpedo Station, Deslaging Station, Ladle Furnaces LF1 and LF2, and Chemical Reheating.



The Project is expected to be initiated by the end of 2015, and the project operation date is expected in June 2018 Table 3 presents the status of key tasks for the implementation of the Project.

B M

PROFEPA Framework Agreement to install dust emission control	
systems	Completed February 4, 2015
Confirmation from SEMARNAT that no environmental impact	
authorization is required	Completed April 10, 2015
Execution of contract with the equipment supplier	Upon securing financing
Anticipated commercial operation date (COD)	June 2018

NADB's procurement policies require that private-sector borrowers use appropriate procurement methods to ensure a sound selection of goods, works and services at fair market prices and that their capital investments are made in a cost-effective manner. As part of its due-diligence process, NADB will review compliance with this policy.

2.1.2. Technical Feasibility

Selected Technology

The use of baghouse systems for controlling particulate matter emissions in the steel and iron industry is a common practice influenced by the collection system's high efficiency and low maintenance and cost compared to other systems, such as electrostatic precipitators. The Sponsor performed a feasibility analysis for the proposed Project and evaluated technology and equipment from two different suppliers. The technology evaluation considered elements such as the quality of the equipment, collection efficiency, operation and maintenance costs and the availability of spare parts.

The main components of the Project are:

- <u>Fume suction system for the sub-processes</u>. Five hoods, made of 6-10 mm gauge steel plates mounted on a steel plate structure, will be installed for suction and will extract fumes generated during the operation of converters 1 and 2, the torpedo station (hot metal transfer car), deslaging station, ladle furnaces LF1 and LF2 and the chemical reheating process. The suction volume will be adjusted by an electric damper. Collected dust will be conveyed to the baghouse through ductwork constructed of 4-6 mm gauge steel plates.
- Raw gas line. All fumes generated during operation will be sent to the main suction
 duct, conveyed to a spark arrestor and directed to the baghouse system at a
 temperature of 120°C. In case of an emergency, an automatic air dilution damper will be
 installed near the spark arrestor to prevent temperature peaks inside the baghouse that
 could damage the system.
- <u>Filter plant (pulse-jet baghouse</u>). The system will be comprised of 5,760 fabric bags to collect dust from the aforementioned production processes. The system will have a maximum operation volume of 29,333 m³/min, a maximum temperature of 150°C and

an estimated particulate concentration of 50 mg/m³ in the exhaust. The unit will be equipped with an automatic bag cleaning system. No water is required for the operation and maintenance of the equipment.

- <u>Exhaust gas duct</u>. Exhaust gas from the baghouse will be conducted to the stack through ductwork constructed of 4-6 mm gauge steel plates.
- <u>Fans</u>. The exhaust gas from the baghouse will be conveyed to the stack through ducts by using radial fans. The fans will be placed in the output of the filter plant.
- <u>Stack</u>. The stack will be built on a concrete base and will be a self-supporting steel structure, 60 meters high and 6 meters wide. The stack will include an accessible platform for monitoring activities to be performed by an authorized contractor.
- <u>Dust discharge system</u>. The dust discharged from the baghouse filter hoppers will be funneled to a chain conveyor located below each row of hoppers and sent to a dust storage silo.
- <u>Storage silo</u>. The silo will have a capacity of 250 m³, which will be accessible from the top and bottom for loading trucks.

2.1.3 Land Acquisition and Right-of-way Requirements

The Project will be constructed within the existing AHMSA facilities in Monclova, Coahuila, in accordance with the PROFEPA requirements described in Section 2.2. No additional land acquisition or right of way will be required for Project implementation.

2.1.4. Management and Operations

Established in July 1942, AHMSA is the largest integrated steel plant in Mexico, currently operating at an annual production rate of 4.1 million metric tons of liquid steel with a workforce of 23,000 people, including its subsidiary companies, Minera del Norte, S.A. de C.V., Nacional de Acero, S.A. de C.V., Hojalata Mexicana, S.A. de C.V., AHMSA International Inc. and AHMSA Steel Israel. In 2013, AHMSA held 19% of the domestic steel market and 29% of the flat steel market and accounted for 12% of steel exports. With its fully integrated production cycle, from the extraction and transportation of raw materials to the production and distribution of high-value products, the company is considered a low-cost steel company.

The technology supplier will provide Operation and Maintenance Manuals, as well as technical training to AHMSA staff for proper system operation, including startup and shutdown procedures. Maintenance tasks will be performed periodically to optimize the operation of the emission control system. Typical preventive maintenance activities include the inspection of filter media for leakage, wear, bag tension, loose bag clamps, corrosion in collectors and fans, and loose bolts, as well as replacement of the filter media and lubrication of fans and motors.

AHMSA currently operates under provisions of an environmental permit (LAU) issued by SEMARNAT with specific conditions for controlling emissions in different production processes,

including the BOF2.⁷ Under the LAU, the Sponsor must submit a compliance report known as Annual Operation Certificate (COA) to SEMARNAT no later than April of each year. The COA includes information on the release and transfer of solid waste and pollutants to air, water and soil. Additionally, AHMSA operates an air quality monitoring system near the boundaries of its facilities to track changes in emission concentrations that may impact the community. More detailed information is provided in Section 2.2.

M M M B

2.2.1. Compliance with Applicable Environmental Laws and Regulations

Applicable Laws and Regulations

Mexico's General Law of Ecological Balance and Environmental Protection (LGEEPA) establishes the framework for all environmental protection laws, including provisions for environmental impact analysis and air pollution control. The facilities where the Project will be located began operations in 1975, prior to enactment of this law, and therefore, were not required to perform an environmental impact analysis or obtain environmental clearance. According to Article 6 of the Regulations for Ecological Balance and Environmental Protection for Environmental Impact Evaluations (RLGEEPAMEIA), an environmental authorization is not required for installation of the Project, as it is related to controlling emissions rather than modifications to the production process and does not represent an increase in environmental impact. The RLGEEPAMEIA establishes that SEMARNAT must be notified about the development of the Project and must officially acknowledge that the authorization is not required.

The LAU is a regulatory instrument issued by SEMARNAT to industries under federal jurisdiction to coordinate the evaluation and resolution of the environmental procedures that industrial facilities must comply with concerning environmental impact and risk, air pollution, the generation and treatment of hazardous waste, discharges to wastewater systems and national water bodies and territories. The operational basis of the LAU was published in the Mexican federal gazette, *Diario Oficial de la Federación*, on April 11, 1997 and April 9, 1998. The LAU is issued only once based on the main productive activity and location of the facility, providing an integrated approach for analyzing the impact of economic activities on air, water and soil. Periodic monitoring is done through the Annual Operation Certificate (COA). The LAU must be renewed if the nature of the business changes or the facilities are relocated and must be updated if processes are modified, the facilities are expanded or new hazardous waste flows are detected in the processes.

The Project is subject to the requirements established in the PROFEPA agreement, which includes compliance with the Mexican Standard NOM-043-SEMARNAT-1993, which establishes the maximum permissible emission levels of solid particles into the atmosphere from stationary sources.

11 JUNE 8, 2015

_

⁷ The LAU is the environmental authorization granted by SEMARNAT for the operation of stationary sources under federal jurisdiction.

Environmental Studies and Compliance Activities

The Sponsor submitted a Notice of No Environmental Impact Authorization Requirement on March 20, 2015, to SEMARNAT, who confirmed that no authorization was required via official document SGPA/DGIRA/DG/02715 issued on April 10, 2015.

The Sponsor obtained the LAU issued by SEMARNAT on March 30, 2012 through official document No. DGGCARETC.715/DRIRETC.-00068. The LAU specified that the Sponsor must install emission control systems for different production processes, including the BOF2, in order to meet the requirements of the applicable regulation referenced above. Specifically, an emission control system for the BOF2 process would need to be installed within a period of two years from the official notification date, which expired in March 2014. Since the control system was not installed within the specified time period, the Sponsor and PROFEPA began working together to establish strategies and timeframes to comply with the applicable environmental law, and on February 4, 2015, they signed an agreement whereby the Sponsor agreed to implement the Project no later than 2018.

Pending Environmental Tasks and Authorizations

There are no pending environmental authorizations.

Compliance Documentation

SEMARNAT confirmed that no environmental impact authorization is required through Notice No. SGPA/DGIRA/DG/02715 issued on April 10, 2015.

2.2.2. Environmental Effects / Impacts

The production processes in the steel and iron industry are a significant source of TSP that must be controlled in order to comply with the environmental regulations. The control of particulate matter in the production areas requires cost-effective systems with high collection efficiency, such as the baghouses. The Project provides an opportunity to capture and reduce the emissions produced in the BOF2 process, in compliance with the applicable Mexican environmental standards and thus reduce health risks in the surrounding communities.

Existing Conditions and Project Impact – Environment

The particulate matter generated in the secondary activities of the BOF2 process is not captured by a control system, causing severe impacts on air quality due to dust emissions inside the AHMSA facilities and its surrounding areas. It is estimated that approximately 31,000 metric tons per year of TSP is emitted from the BOF2 process, contributing to air pollution in the area.

By implementing the Project, the Sponsor expects that TSP emissions will be reduced, which will help improve air quality in the surrounding communities, especially those located northwest of the facilities. The PROFEPA agreement establishes a reduction of 13,641 metric tons per year of particulate matter as a result of the implementation of the Project and two control systems in other production areas. The Sponsor estimates that the Project will reduce TSP emissions from

the BOF2 process by about 97%, which accounts for approximately 30,070 metric tons per year, more than two times the commitment in the PROFEPA agreement.

Additionally, the Project will help comply with NOM-043-SEMARNAT-1993, which specifies that all emissions must be conducted, controlled and measured, and that the exhaust concentration must not exceed 60 milligrams/m³. The estimated exhaust concentration in the stack is expected to be less than 50 milligrams/m³; therefore, the Project will be in compliance with the limits of the standard.

Mitigation of Risks

The Sponsor will follow best management practices during the construction and operation of the Project, such as using an authorized contractor for the disposal of filter media replaced during maintenance activities. Additionally, the PROFEPA agreement requires the following activities to mitigate the risk of non-compliance with the conditions established in the agreement:

- Provide a schedule of activities for the implementation of the Project.
- Provide PROFEPA with the necessary information related to the implementation of the Project in a timely manner. Access to the facilities must be granted for inspections conducted by PROFEPA.
- Submit a quarterly progress report on the implementation of the Project. Reports shall be submitted within 10 calendar days after the end of the quarter.
- Upon completion of the works included in the abovementioned calendar, the Sponsor must prepare a final report of the completed works and activities established in the agreement for the implementation of the Project.

Natural Resource Conservation

The Project does not interfere in any way with the conservation of natural resources in the region. All Project activities will be carried out in previously disturbed land within the AHMSA facilities, and no biotic impacts are anticipated, as there are no sensible habitats or ecosystems within the Project area.

The Project will also help preserve water resources since no water is required for the operation and cleaning activities of the Project.

No Action Alternative

The no action alternative will result in the continued emission of an estimated 31,000 metric tons per year of particulate matter into the atmosphere and non-compliance with the applicable regulation for emissions from point sources.

Existing Conditions and Project Impact – Health

EPA studies conclude that the vast majority of available epidemiological evidence suggests that short- and long-term exposure to particulate matter (PM) in the environment increases human mortality. EPA recognizes that the complexity of synergetic effects (association with other

BOARD DOCUMENT BD 2015-16
CERTIFICATION AND FINANCING PROPOSAL
EMISSIONS CONTROL SYSTEM, MONCLOVA, COAH

pollutants, particle size, source of the particulate matter, age and the susceptibility of the exposed population, etc.) results in significant variations between the different studies on human exposure to atmospheric pollutants, including particulate matter.

The effect on human health is determined by the size of the particles, based on the degree of their penetration and their permanence in the respiratory system. Prolonged exposure to particles with a diameter of 10 micrometer or less results in eye and nose irritation, an increase in respiratory illnesses, aggravation of asthma, a decrease in lung performance and an increase in symptoms related to respiratory problems. Particles with a diameter smaller than 5 micrometers are more likely to be deposited in the bronchi and pulmonary alveoli; therefore, smaller particles are more harmful to human health.

The proposed Project will immediately reduce the amount of particulate matter released by the BOF2 process. These improvements will help reduce the risk of respiratory illnesses and allergies.

Transboundary Effects

No negative transboundary impacts or effects are anticipated as a result of the development of the Project. On the contrary, given prevailing northbound wind in Monclova, a beneficial impact on air quality is anticipated due to the reduced emission of particulate matter.

Other Local Benefits

In addition to providing a healthier environment for the population of Monclova, the Project is expected to generate 200 temporary jobs in the region as a result of the installation of the emission control system. Employment of personnel for construction activities would provide a temporary beneficial impact on local businesses and economy through increased expenditure of wages for goods and services.

M MB B

The Project Sponsor has requested a loan for up to US\$23.2 million from the North American Development Bank (NADB) to complete the financing of the Project. The proposed payment mechanism is well known and commonly used in the Mexican financial sector to structure similar transactions. MINOSA will be NADB's borrower at all times and will be responsible for making monthly debt service payments to NADB.

The primary source of payment for the NADB loan will come from MINOSA's operating revenue. As a complementary source of payment, a portion of revenues from a coal supply contract between CIC Corporativo Industrial Coahuila, S.A. de C.V. (CICSA) and Comisión Federal de Electricidad (CFE) (the "CICSA-CFE Contract") will be pledged to a trust (the "Trust"). The Trust will cover the debt service payments of the NADB loan and other Project debt financing.

NADB performed a financial analysis of MINOSA and the complementary source of payment. The analysis of MINOSA's finances included a review of historical financial information, as well as cash flow projections. At the close of 2014, MINOSA presents good financial and operational

indicators, which show that the company is successfully carrying out its operations and meeting its obligations with contractors and lenders. MINOSA's projected operating cash flows cover more than 20 times the debt service payments of the Project. Furthermore, the portion of revenue from the CICSA-CFE Contract to be pledged to the Trust will cover 1.5 times the debt service payments of the Project.

In addition, NADB has verified that MINOSA has the legal authority to contract the loan and that CICSA is able to pledge a portion of its collection rights under the CICSA-CFE Contract to the Trust.

Considering the Project's characteristics and based on the financial and risk analyses performed by NADB, the proposed Project is considered to be financially feasible and presents an acceptable level of risk. Therefore, NADB proposes providing a market-rate loan for up to US\$23.2 million to MINOSA to complete the financing of the Project.

	B BB	M	M	
вв м	M			

BECC released the draft Project Certification and Financing Proposal for a 30-day public comment period beginning May 7, 2015. The following documentation was made available upon request:

- Notice of No Environmental Impact Authorization Requirement No. SGPA/DGIRA/DG/02715 issued by SEMARNAT on April 10, 2015.
- PROFEPA Framework Agreement to Install an Emission Control System no. PFPA-SJ-DGCPAC-01-15.

The 30-day public comment period ended on June 6, 2015, with no comments received.

B B

Since the Project does not require environmental authorization, no official public notice was published in local media as required for the evaluation of the environmental impact assessment (MIA).

BECC conducted a media search to identify potential public opinion about the Project. Even though most of the information related to the Project was published in the first quarter of 2015, previous references to AHMSA's efforts to support the community and protect the environment were found. Information in news websites such as *El Tiempo* indicates that AHMSA received a notice from PROFEPA to close three production areas due to pollution problems as published on November 14, 2010. However, AHMSA has received support from other private companies and the Mexican Chamber of the Construction Industry, highlighting the Sponsor's contributions as a

source of employment for the community and its commitment to mitigate negative effects by planting 20,000 trees within the facilities and surrounding areas to create a natural barrier to protect the health of the community.⁸

The most recent references to the Project were found in national newspapers such as *Reforma* and *El Norte*, as well as several articles on newspapers websites such as *Vanguardia de Saltillo*, *Zócalo de Coahuila*, *El Financiero* and *El Diario de Coahuila*. The information highlights AHMSA's commitment to reduce air pollution in Monclova under the agreement signed with PROFEPA. Information about the Project can be found at the following links:

- <u>Vanguardia de Saltillo</u> (February 5, 2015) "Invertirá AHMSA 65 mdd en reducir la contaminación de Monclova (AHMSA will invest US\$65 million to reduce air pollution in Monclova)"
 http://www.vanguardia.com.mx/invertiraahmsa65mddenreducirlacontaminaciondemonclova-2263214.html
- Zócalo de Coahuila (February 5, 2015) "Reducirá AHMSA emisiones (AHMSA will reduce emissions)"
 http://www.zocalo.com.mx/seccion/articulo/reducira-ahmsa-emisiones-1423189358
- <u>El Financiero</u> (February 5, 2015) "AHMSA invertirá 65 mdd para reducir emisiones contaminantes (AHMSA will invest US\$65 million to reduce air pollution)"
 http://www.elfinanciero.com.mx/empresas/ahmsa-invertira-65-mdd-para-reducir-emisiones.html
- <u>El Diario de Coahuila</u> (February 6, 2015) "Invertirá AHMSA 65 mdd en protección al medio ambiente (AHMSA will invest US\$65 million to protect the environment)" http://www.eldiariodecoahuila.com.mx/notas/2015/2/6/invertira-ahmsa-proteccion-ambiente-486124.asp

No opposition to the Project was detected in the available media coverage. The Project Sponsor is committed to complying with all provisions of the PROFEPA agreement to implement the Project in a timely manner in order to improve air quality in the region.

JUNE 8, 2015 16

-

⁸ More details can be found at:

http://www.periodicoeltiempo.mx/index.php?option=com_content&view=article&id=15103:no-al-cierre-de-ahmsa&catid=120:empresariales&Itemid=728