Why GARD Established its Green Steel Committee

Local blast furnaces – including the coke ovens and the sinter plants that feed them – are among the country's largest point sources of the toxic air pollutants that seriously harm the health of Gary's residents and residents in surrounding communities. They are also among the country's largest point sources for greenhouse gas emissions causing climate change.

A new technology is now available for producing iron from iron ore that is more efficient and cleaner than a blast furnace. Three steel companies in the U.S. are already producing iron with this new technology, and we expect that the use of blast furnaces to produce iron will become obsolete in the United States within the next 15 to 20 years.

How Gary Works' owners respond to this new technology's emergence will have a profound effect on local air pollution; on the future of Gary Works; on community health; on local natural resources; on Gary Works' contribution to climate change; on the revitalization of the city of Gary; and on other local sustainable development objectives.

US Steel's Gary Works is the largest steel production facility in the United States. It abuts many of Gary's residential neighborhoods; it monopolizes a full seven miles of Gary's Lake Michigan shoreline; and it is adjacent to the Indiana Dunes and the Grand Calumet River. The second and third largest steel mills in the U.S. are both located within five miles of Gary's city limits. These three local steel mills all operate blast furnaces which, taken together, make more than half of the iron that is now being produced in the United States.

A new iron making technology called hydrogen-ready direct reduction (DR) has become available. It produces iron from iron ore with significantly less toxic emissions than a blast furnace. It is also more efficient and easier to operate; it releases much less greenhouse gas emissions; and it provides a pathway toward producing steel with virtually no greenhouse gas emissions and with fewer toxic air emissions.

The U.S. steel industry's transition from making iron in a blast furnace to making iron in a DR furnace will continue and quicken for both economic and competitive reasons. Under U.S. conditions, making steel from iron produced in a direct reduction furnace is less costly than making steel from iron produced in a blast furnace. US Steel's major competitors are already producing DR iron. We expect there will be growing competition among U.S. steelmakers to develop the capacity to profitably produce and use DR iron.

The emergence of the new DR furnaces will soon make blast furnaces an obsolete technology. We expect that the last blast furnace in the United States will likely be retired within the next fifteen to twenty years. Currently operating primary steel mills – like Gary Works – that do not replace their blast furnaces with DR furnaces quickly enough will be shut down soon after their last blast furnace is retired.

Local Support. Few local residents, including community leaders and elected officials, understand the benefits the transition to DR technology would have for the community's health; the global climate; the sustainability of the city of Gary; and the future viability

and survival of the Gary Works steel mill. GARD wishes to share this information to help develop informed local support for cleaner and greener steelmaking.