



PAUL TITTL

STATE REPRESENTATIVE • 25TH ASSEMBLY DISTRICT

Assembly Committee on Environment and Forestry

Assembly Bill 941

February 19, 2018

First of all, I would like to thank you, Chairman Mursau and committee members, for allowing me to testify before you concerning Assembly Bill 941.

This bill is good for business, good for the environment and good for Wisconsin. Before I tell you why I feel that way, I'd like to say a couple of words about steel slag and the current law.

Steel slag is a non-metallic byproduct of the steel and iron making process. It is commonly used as aggregate for asphalt paving, road base, fill, and as an additive in cement.

Under current law the DNR regulates steel slag through the beneficial reuse regulations that apply to solid waste. In order to be able to reuse steel slag, companies must obtain an exemption from the DNR. That process is cumbersome, time consuming, and costly. It also has an element of uncertainty as companies await DNR approval for an exemption.

The bill clarifies in the statute that steel slag is not a solid waste if it is treated as something of value and handled in a controlled manner. That clarification is good for business.

As a businessman, I understand the negative effect of unnecessary regulations that impede business. The manner in which the current law handles steel slag falls within that category. It is cumbersome and unnecessary.

Second, as a person who loves the outdoors and has been a sportsman all of my life, I also understand the importance of maintaining our environment. We have an obligation to pass it on to our children and grandchildren in sound condition so they can enjoy it as well.

If this bill were a threat to our environment, I would not be testifying in favor of it today. However, according to the federal EPA, steel slag may be safely used. When treated as something of value and handled in a controlled manner, it is a component material rather than a solid waste on the way to a landfill.

In conclusion, I would like to ask a question: Wouldn't you rather have slag as a part of our roads rather than overloading our landfills? My answer without hesitation is yes! Let's lessen the burden on our landfills in a productive and efficient way.

After Senator Stroebel has testified, we will be pleased to take any questions you might have. Thank you for this opportunity to testify before you today.

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DUEY STROEBEL

STATE SENATOR • 20TH DISTRICT

Testimony on AB 941

February 19, 2018

Chairman Mursau and members of the Assembly Committee on Environment and Forestry, thank you for considering AB 941 today. This measure is a straightforward effort to ensure that steel and iron slag continue to be recycled in a sound, environmentally friendly fashion in our state. This bill declares in state law that steel and iron slag are not solid waste products if they are managed as an item of value and in a controlled manner.

Slag is a non-metallic byproduct of the steel and iron making process. According to the U.S. Environmental Protection Agency, slag has many safe and beneficial uses in the construction and aggregate industries. Slag may be used in concrete and asphalt paving, road bases and as feed for cement kilns. The U.S. Geological Survey reports that a total of 18 million tons of slag were recycled in 2016.

The U.S. Department of Transportation has published recommendations for how slag may be productively used in road construction and maintenance. Another federal regulatory body believes that as new environmental restrictions on coal-fired power plants reduce the amount of fly ash available for the concrete industry, steel slag may be substituted for fly ash in concrete manufacturing.

From a global perspective, European nations also recognize the value of recycling slag. The vast majority of steel and iron slag generated in European Union countries is recycled on construction projects.

Passage of this bill would bring Wisconsin into line with states like Iowa, Michigan, Ohio and Nebraska which currently exempt steel and iron slag from industrial solid waste requirements. Other states, like Illinois and Indiana, use their regulatory process to exempt steel slag from solid waste regulations. Wisconsin currently provides a mechanism via administrative rules for the recycling of slag, but that mechanism is cumbersome and located in a portion of the rules the Department of Natural Resources is currently rewriting.

Recycling slag in Wisconsin is not a new concept. In 2015 the Department of Health Services specifically determined that slag produced from an electric arc furnace process may be safely used in a variety of road construction applications. There is ample research to support this determination across all types of slag produced in the steelmaking process.

The clarity AB 941 provides our steel and iron manufacturers will annually prevent 50,000 to 100,000 tons from just one Wisconsin company from going into our state's landfills. This is a measure that is good for business, good for the environment and good for Wisconsin.

Thank you and I'm happy to answer any questions.

Assembly Committee on Environment and Forestry
Assembly Bill 941
February 19, 2018



WMC

WISCONSIN MANUFACTURERS & COMMERCE

TESTIMONY BEFORE THE SENATE COMMITTEE ON NATURAL RESOURCES AND ENERGY IN SUPPORT OF ASSEMBLY BILL 941

Chairman Mursau and Representatives:

Thank you for the opportunity to testify today. My name is Lucas Vebber and I am the General Counsel and Director of Environmental and Energy Policy at Wisconsin Manufacturers and Commerce (WMC). WMC is the state's chamber of commerce and manufacturers' association. With approximately 3,800 members, we are the largest business trade association in Wisconsin. WMC represents members from all over Wisconsin of all sizes and in every sector of the state's economy. I am submitting these comments today in support of Assembly Bill 792.

Slag is an environmentally safe and commercially viable byproduct of iron and steel production and processing. At a 10,000 foot level, slag is what's left when metal has been separated from its ore. Slag has been used for decades, most commonly as a construction aggregate (used as fill or as a replacement for cement) or as a pavement material.

Under Wisconsin law, slag is considered to be "solid waste" because it is a recoverable material generated as a result of an industrial process. This means it is treated the same as garbage, and is highly regulated. Wisconsin does provide a program for the reuse of such industrial byproducts, which is spelled out in Wis. Admin. Code NR 538. NR 538 provides a current way for foundries to sell their slag on the market, and to avoid sending that slag to landfills.

DNR is currently reworking NR 538. There is an ongoing study committee looking at that rule, and it is unclear exactly when that work will be done or what the rule will look like. As part of that process, WMC worked with some of our members to review laws in other states, and how slag is treated elsewhere. What we found is that a growing number of states have specifically amended their state laws to exempt ferrous slag from their definitions of "solid waste" – I've attached a brief summary of what the laws look like in some of those states. The approaches taken in those states do vary slightly. Most recently, Pennsylvania unanimously passed a law to exempt slag from the definition of solid waste. In Illinois, their environmental regulator has simply made an administrative determination that if the slag is not discarded, it does not meet the definition of solid waste. For your reference, that letter is also attached.

This legislation was compiled based on those other states and discussions with Wisconsin companies as to what would work best here. This bill simply says if a foundry is going to treat the slag as an item of value and handle it in a controlled

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Founded in 1911, WMC is Wisconsin's chamber of commerce and largest business trade association.

manner, it will not be considered solid waste. Foundries who discard their materials will still have to treat it as solid waste. This approach has worked elsewhere, and it will work in Wisconsin.

Building on NR 538's historical success, this is an opportunity to clarify the law, help Wisconsin companies stay competitive with their counterparts in our neighboring states, and to make certain that hundreds of thousands of tons of slag are kept out of our landfills and recycled each year.

Thank you for your time, I would be happy to answer any questions you may have today, and Lucas Vebber from WMC will also be following up with all of you.

Indiana

Indiana explicitly prohibits the environmental rules board from adopting rules that regulate certain “activities involving the legitimate use of slag generated from the production of iron or steel,” see Indiana Code 13-19-3-8:

“The board may not adopt rules under section 1 of this chapter to regulate the following activities involving the legitimate use of slag generated by the production of iron or steel under Bureau of the Census Standard Industrial Classification 3312:

- (1) Production of slag.
- (2) Transportation of slag.
- (3) Storage of slag.
- (4) Processing of slag.
- (5) Legitimate use of slag.”

Note that Indiana defines “Legitimate Use” as (see Indiana Code 13-11-2-118.4)

“(a) “Legitimate use”, for purposes of this article, IC 13-19, and IC 13-20, means the use or reuse of a material, otherwise defined as a solid or hazardous waste, under all of the following circumstances:

- (1) The material is used or reused:
 - (A) in a manufacturing process; or
 - (B) as a substitute for natural or commercial materials.
 - (2) The material:
 - (A) is commercially valuable for an established or emerging market; and
 - (B) is used or reused in a manner that does not pose an unreasonable threat to human health or the environment.
- (b) Subsection (a) does not affect or limit uses of materials as allowed under IC 13-19-3, rules adopted by the board, or other state or federal law or regulations.”

Iowa

Iowa explicitly excludes slag from the definition of “solid waste,” see the exemption in Iowa Code section 455B.301:

“e. Steel slag which is a product resulting from the steel manufacturing process and is managed as an item of value in a controlled manner and not as a discarded material.”

Michigan

Michigan explicitly excludes slag from the definition of “solid waste,” see the exemption in Michigan Compiled Laws Section 324.11506(1)(f):

“(f) Slag or slag products directed to a slag processor or to a reuser of slag or slag products.”

Nebraska

Nebraska explicitly excludes slag from the definition of "solid waste", see Nebraska Revised Statutes 81-1502 (26):

"(26) Solid waste shall mean any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, and mining operations and from community activities. Solid waste shall not include slag, a product that is a result of the steel manufacturing process and is managed as an item of value in a controlled manner and not as a discarded material; solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Clean Water Act, as amended, 33 U.S.C. 1251 et seq.; or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.;"

Ohio

Ohio explicitly excludes slag from the definition of "solid waste," see the exemption in Ohio Revised Code section 3734.01(E):

"(E) "Solid wastes" means such unwanted residual solid or semisolid material as results from industrial, commercial, agricultural, and community operations, excluding earth or material from construction, mining, or demolition operations, or other waste materials of the type that normally would be included in demolition debris, nontoxic fly ash and bottom ash, including at least ash that results from the combustion of coal and ash that results from the combustion of coal in combination with scrap tires where scrap tires comprise not more than fifty per cent of heat input in any month, spent nontoxic foundry sand, nontoxic, nonhazardous, unwanted fired and unfired, glazed and unglazed, structural products made from shale and clay products, and slag and other substances that are not harmful or inimical to public health, and includes, but is not limited to, garbage, scrap tires, combustible and noncombustible material, street dirt, and debris. "Solid wastes" does not include any material that is an infectious waste or a hazardous waste."



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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BRUCE RAUNER, GOVERNOR

ALEC MESSINA, DIRECTOR

May 17, 2017

Illinois Manufacturers' Association
Greg Baise
220 East Adams St
Springfield, IL 62701

RE: Steel and Iron Slag

Dear Greg:

Thank you for including the Illinois EPA in the recent legislative discussions regarding the environmental regulation of steel and iron slag products in Illinois. Under Illinois law, the steel and iron slag products targeted in the draft legislation are not considered a waste provided they are not discarded. To avoid classifying material as discarded, the material must be managed as a commercial product by collecting, separating, or processing the material and returning it to the economic mainstream in the form of raw materials or products. The management of steel and iron slag as a commercially valuable product, its sale in the economic mainstream, and its management as non-discarded material are all evidence that the product is a material that has not been discarded and, therefore, is not a waste.

I hope this letter helps make sense of what are admittedly complicated provisions in the Environmental Protection Act and Pollution Control Board rules. If we can provide any future assistance with this project, please don't hesitate to contact Kyle Rominger at 217-524-3974.

Cordially,


Alec Messina
Director

Waupaca Foundry, Inc.

Testimony in Support of Assembly Bill 941

Committee on Environment and Forestry

Monday, February 19, 2018

Room 417 at 12 pm

Bryant Esch Remarks

- Good morning Mr. Chairman and members of the committee.
- My name is Bryant Esch, and I am the chief sustainability officer for Waupaca Foundry.
- For brief background, Waupaca Foundry produces iron castings, focusing on transportation, construction, agriculture and industrial markets worldwide.
- Our Wisconsin facilities employ approximately 2,200 people in skilled and well-paying jobs.
- Waupaca Foundry is the largest recycler of iron metalcasting byproducts in the country with approximately 550,000 tons recycled in lieu of disposal annually.
- Waupaca Foundry's most valuable byproduct, slag, is a byproduct of the iron melting process and comprises approximately 100,000 tons of the materials available to be recycled annually.
- Iron foundry slag is a nonhazardous byproduct with a long history of favorable commercial use and supportive environmental testing.
- While demand is slightly reduced in Wisconsin due to native sand and gravel reserves, slag is often sold as a native aggregate substitute for cement manufacturing, road construction, abrasives or other uses.
- Waupaca Foundry has electively participated in a number of State and national programs to study and promote the beneficial reuse of foundry byproducts.
- Waupaca Foundry also participates in the Green Tier program administered by the Department of Natural Resources, with the beneficial reuse of slag being one of the cornerstones of Waupaca's sustainability program success.
- In summary, our company is working very hard to reduce waste and derive the greatest value from the metalcasting process. We are committed to doing so as it makes us more competitive and good corporate citizens of our community.
- Current reuse of slag occurs under the State's excellent NR 538 Beneficial Reuse Rule program. Case specific approvals are often required for use of slag as a material replacement.
- In other states where Waupaca Foundry conducts business, recognition of slag as a valuable commodity, in lieu of a waste, has resulted in additional commercial opportunities to utilize the valuable material.

Questions?

One Family. One Team.

February 19, 2018

Testimony before the Assembly Committee on Environment and Forestry in Support of Assembly Bill 941

Good morning Mr. Chairman and members of the committee. Thank you for the chance to speak to you and I appreciate the opportunity to come before you today regarding AB-941. My name is Rob Thompson and I am the Environmental Director for Charter Steel, based in Saukville. Charter Steel also has a steel mill in Cleveland, OH and a processing facility in Fostoria, OH.

Charter Steel is part of the Charter Manufacturing group of companies, based in Wisconsin, and employing 1100 people in the state. Our integrated steel mill in Saukville employs 650 people throughout the melting, rolling and processing plant. We ship to customers that form the steel into a wide variety of products we all use every day such as bearings, bolts, automotive suspension springs, valves, and drill bits. It is also likely our steel is in the chairs we are sitting in if they were made in the US.

Charter operates a sustainable business model of effectively supplying the highest quality steel products in a safe and environmentally responsible manner. The model allows us to provide valuable career development opportunities for our employees, allowing them to support their families and the community. Sustainability is our business. As one of the largest recycler in the state, we turned over 600,000 tons of scrap steel back into high quality steel billets and coils in 2017.

Steel slag is also a product that we have produced and always sold as part of our steelmaking process. The value of the steel slag is small compared to steel, but it has tight specifications, just like our steel product. In fact, the US Department of the Interior, US Bureau of Mines, and the USGS has always considered iron and steel slag a commodity. Last year we produced and sold over 65,000 tons of slag for use as construction aggregate. The processing and sale of slag is a sustainable process. Charter uses limestone and dolomite, mined in Marblehead, WI in its steelmaking process. These same minerals also become the primary constituents of our steel slag when it is created in the steelmaking process. As a synthetic aggregate it replaces the need to mine limestone and dolomite for use as construction aggregate.

As you may be aware, the US steel industry competes with foreign suppliers that routinely undercut the market, as we see in the trade cases currently underway by the US Department of Commerce. We also compete with steel mills in other states that operate under different environmental regulations.

The states where our competitors have businesses, including Ohio where our other steel mill is located, have determined slag from steelmaking operations is a product and there is no need to regulate its sale or use. We have reviewed several health risk studies on the safety of steel slag and have determined the product is safe to be managed and sold without the need for burdensome regulation.

The current process in Wisconsin for enabling the sale and use of steel slag requires negotiating a grant of exemption every 5 years with the DNR. It is by far the most burdensome process in the country for managing steel slag. This process is time consuming, costly and unnecessary for both the DNR and Charter. Most importantly, the process is uncertain. The decision on how to properly manage steel slag is entirely dependent on the opinion of the DNR Staff in place at the time. In fact, while the rest of the country was removing barriers to the use of slag, our latest grant of exemption added more barriers, administrative burdens, reporting and costs than earlier grants. This uncertainty for decision-making is a significant competitive disadvantage.

The possibility of landfilling slag is not a good solution for our business or the environment. The cost to landfill last year's slag instead of using it in a productive manner would have been \$2.2 million dollars. This is a cost our competitors in other states would not need to spend. The volume of this material would take up roughly 40,000 cubic yards of landfill space. That equates to slag piled about 20 feet high covering an entire football field. As such, there is merit for your support of AB-941 and we respectfully ask for your support. With that, I appreciate your time and would be open to taking questions.



To: Members of the Senate Committee on Natural Resources and Environment

Date: February 19, 2018

From: Amber Meyer Smith, Vice President of Programs and Government Affairs

Re: Opposition to AB 941, Eliminating Oversight of the Uses of Ferrous Slag

Clean Wisconsin is opposed to allowing for the unrestricted use of iron and steel slags in commercial markets without any testing of the material to determine whether it would pose a health or environmental hazard. By exempting slag from solid waste provisions when used as an item of value, the proposal removes any of the testing and oversight found in NR 538. NR 538 is currently under review by a technical advisory committee, which includes Clean Wisconsin's staff scientist Paul Mathewson, the DNR, and industry stakeholders.

Wisconsin's Department of Health Services concluded, after two studies, that the unrestricted use of the material poses an unacceptable health hazard, particularly to young children.

- Contaminant levels in slags are highly variable and depend on the process and base materials used in steel or iron making.
- DHS conducted health assessments of the use of steel slag from Charter Steel in residential settings in 2008 and 2015. They concluded the unrestricted use in residential areas was not appropriate due to unhealthy exposure to children through direct contact via ingestion. Specifically, there were concerns about high levels of thallium and manganese, which cause neurological problems. The DHS health assessment also said that while more information was needed in terms of whether all construction uses of slag would be a drinking water health concern, their assessment of Charter Steel's Saukville facility showed slag has the potential to impact groundwater due to leaching of metals.

We would only support the use of this material if it is limited to confined (under paved surfaces) or encapsulated uses (in cement or concrete). This is consistent with the DHS recommendation which supported the use in road or parking lot construction, and we are fine with those "covered" or "confined" uses of the material.

We have seen the suggestion that this use be restricted around daycares and schools. While that is a start, it still does not offer adequate protection from potential pollution. For example, children may still come into contact on trails and public parks. And this amendment does not protect the public from threats to groundwater.

Groundwater protections are important because we know some types of slag leach contaminants above groundwater standards. In fact, Charter Steel's recent exemption from the DNR limited the use of ladle slag to these confined, encapsulated, or lined uses in part because the leach tests showed exceedances of Wisconsin's health-based groundwater standards for fluoride and aluminum, and exceedances of direct-contact standards for chromium and manganese, among other metals. Limiting the use of slag to confined uses is the only way to adequately protect groundwater and conforms with the road and pavement based uses industry seeks.