



DUEY STROEBEL

STATE SENATOR • 20TH DISTRICT

Testimony on SB 792

February 15, 2018

Chairman Cowles and members of the Senate Committee on Natural Resources and Energy, thank you for considering SB 792 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 SB 792 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.



PAUL TITTL

STATE REPRESENTATIVE • 25TH ASSEMBLY DISTRICT

Senate Committee on Natural Resources and Energy

Senate Bill 792

February 15, 2018

First of all, I would like to thank you, Chairman Cowles and committee members, for allowing me to testify before you concerning Senate Bill 792.

I agree with what Senator Stroebel has just presented, and I will not reiterate what he has said. However, I would like to emphasize his final point: this is a measure that is good for business, good for the environment and good for Wisconsin.

As a businessman, I understand the negative effect of unnecessary regulations that impede business.

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, slag is an important material in various aspects of our economy. When used in that way, it is merely a component material rather than solid waste on the way to a landfill.

Other speakers will address these points in greater detail, so I will conclude my remarks at this point as I began. SB 792 provides an opportunity for legislators to pass a bill that is good for both our environment and our economy, and I ask for your support.

Thank you for this opportunity to testify before you today.

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

Date: February 15, 2018

From: Sarah Barry, Director of Government Relations

Re: Opposition to SB 792, 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 more information was needed in terms of whether construction uses of slag would be a drinking water health concern.
- **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) in non-residential areas. DHS did not recommend any restrictions in non-residential road or parking lot construction uses.**
- For example, while Ohio did exempt steel and iron slag from their definition of solid waste, they also added a specific section in their water pollution statute (ORC 6111.052) saying that:
 - (C) No person shall place or manage blast furnace slag or steel slag in a manner that results in any of the following:
 - (1) An exceedance of a water quality standard, including narrative standards, adopted under section 6111.041 of the Revised Code;
 - (2) An exceedance of a primary or secondary maximum contaminant level in ground water adopted under section 6109.04 of the Revised Code;
 - (3) A discharge that is prohibited by or for which a permit is required by United States environmental protection agency regulations, except in accordance with such permit;
 - (4) A threat to public health or safety or the environment.



WISCONSIN MANUFACTURERS & COMMERCE

**TESTIMONY BEFORE THE SENATE COMMITTEE ON NATURAL
RESOURCES AND ENERGY IN SUPPORT OF SENATE BILL 792**

Chairman Cowles and Senators:

Thank you for the opportunity to testify today. My name is Chris Reader and I am the Director of Health and Human Resources Policy at Wisconsin Manufacturers and Commerce (WMC). Lucas Vebber would ordinarily be testifying on behalf of WMC at today's hearing but he is traveling and will not be back until later today. 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 Senate 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.

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

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 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."

Testimony in Support of Senate Bill 792

Thursday, February 15, 2018

Room 201 at 10 am

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?



LEAGUE OF WOMEN VOTERS®
WISCONSIN

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February 15, 2018

To: Senate Committee on Natural Resources and Energy

From: Andrea Kaminski, Interim Chair, LWV-WI Legislative Committee

Re: SB 733, SB 789 and SB 792, included in your 2/15/18 public hearing

The League of Women Voters of Wisconsin holds extensive Natural Resources positions in support of a physical environment beneficial to life, wise use of ground and surface water resources, and improvement of water, air, and soil quality. Based on our positions, which have been developed through study and consensus by our members, we take the following stances on bills you are hearing today:

SB 733: The League of Women Voters of Wisconsin **supports** this bill, which proposes to make changes to "E-Cycle Wisconsin," the state's electronic waste recycling program. In general, the legislation raises compliance standards and expands the definition of "schools" for purposes of being covered by the program. We believe this legislation will help support responsible recycling of waste in Wisconsin.

SB 789: The League **opposes** this bill, which would create an exemption from permit requirements for certain riparian owners who remove material from the bed of a navigable river. We believe the limitations placed on this exemption are insufficient, and that a negative impact on Lake Mendota and other lakes is a possible repercussion.

SB 792: The League **opposes** this legislation, which provides that the definition of "solid waste" does not include certain iron and steel slags. The bill instead proposes that these materials be managed as an item of value. This would increase the opportunity for environmental hazard.

Thank you.