



Lake Carriers' Association

The Greatest Ships on the Great Lakes

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Docket Management Facility (M-30)
U.S. Department of Transportation
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Dear Sir or Madam:

**Comments of the Lake Carriers' Association on the
Final Environmental Impact Statement
On Dry Cargo Residue Discharges in the Great Lakes
78 Fed. Reg. 58,986 (Sept. 25, 2013)**

Lake Carriers' Association ("LCA") represents 17 American companies that operate 57 U.S.-flag vessels ("lakers") on the Great Lakes and carry the raw materials that drive the nation's economy: iron ore and fluxstone for the steel industry, aggregate and cement for the construction industry, coal for power generation, as well as salt, sand and grain. Collectively, our members can transport more than 115 million tons of dry-bulk cargo per year and employ more than 1,600 men and women, all of whom are U.S. citizens or legally admitted aliens, and provide annual wages and benefits of approximately \$125 million. In turn, the cargos our members carry generate and sustain more than 103,000 jobs in the eight Great Lakes states and have an economic impact of more than \$20 billion.

LCA has reviewed the Final Environmental Impact Statement ("FEIS") assessing the potential environmental impacts associated with a proposed final rule to regulate discharges of dry cargo residue ("DCR") in the Great Lakes and wishes to make the following comments. Our comments here fully incorporate by reference the comments submitted by LCA on October 29, 2012, in response to the Supplemental Notice of Proposed Rulemaking, 77 Fed. Reg. 44,528 (July 30, 2012) ("SNPR").

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The Association Representing Operators of U.S.-Flag Vessels on the Great Lakes Since 1880

AMERICAN STEAMSHIP COMPANY ♦ ANDRIE INC. ♦ ARMSTRONG STEAMSHIP COMPANY ♦ BELL STEAMSHIP COMPANY
CENTRAL MARINE LOGISTICS, INC. ♦ GRAND RIVER NAVIGATION COMPANY, INC. ♦ GREAT LAKES FLEET/KEY LAKES, INC.
INLAND LAKES MANAGEMENT, INC. ♦ THE INTERLAKE STEAMSHIP COMPANY ♦ LAKES SHIPPING COMPANY
LAKE MICHIGAN CARFERRY SERVICE ♦ PERE MARQUETTE SHIPPING ♦ PORT CITY MARINE SERVICES ♦ PORT CITY STEAMSHIP SERVICES
SOO MARINE SUPPLY, INC. ♦ UPPER LAKES TOWING COMPANY, INC. ♦ VANENKEVORT TUG & BARGE I

I. Summary of Comments

1. The movement of dry-bulk cargos on the Great Lakes is a major factor in the region's and nation's economic well-being. The cargos our members carry sustain more than 100,000 jobs in the eight Great Lakes states. The efficiency of waterborne commerce on the Great Lakes is the reason the basin became and remains the nation's industrial heartland.
2. The discharge of small amounts of DCR is necessary for the safety of the crews on our members' vessels, but years of study have time and again demonstrated that these cargo sweepings are non-toxic, non-hazardous, and are discharged at such low levels over time that the practice has never and will never pose a threat to the environment.
3. LCA supports Alternative 2: Performance Requirement to Minimize DCR discharges (the "preferred alternative"). However, we believe that using the word "broom clean" as a shorthand for the standard, rather than "shovel clean", is confusing and misleading. Given ship practices, describing this level of deck cleanliness as a "shovel-clean" rather than "broom-clean" state will produce the desired result and resolve any confusion. LCA asks that the Final Rule describe the standard as "shovel-clean."
4. The reporting obligations under Alternative 2 should not require vessel owners/operators to estimate DCR discharge volumes because such estimates are inherently unreliable and unnecessary when management plans to minimize DCR are implemented.
5. We do not object to the requirement that each vessel have DCR management plans to minimize DCR discharges, but the requirement that the plan be "vessel-specific" should not be construed to mean that each plan has to be unique and different. It must be recognized that, like other vessel operation plans, there is likely to be a great deal of similarity between the plans. Many vessels carry iron ore, coal, and stone, and load and discharge at the same docks. The loading process is very similar from dock to dock and the discharge process does not vary greatly.
6. Moving massive amounts of dry-bulk cargo on self-unloading vessels is unique to the Great Lakes, so it will be imperative that the USCG produce either a supplemental Navigation and Vessel Inspection Circular ("NVIC") or manual so that the frequent rotation of personnel does not lead to inconsistent interpretation and application of the Final Rule, especially the key requirement relating to deck cleanliness, which is, in large part, subjective.
7. The relationship between this proposal and state laws that may call for different and inconsistent requirements remains unclear and needs to be carefully monitored to avoid conflicting and confusing requirements.

II. Full Comments

A. The U.S.-Flag Great Lakes Fleet Is A Major Contributor To The Region's and Nation's Economic Well-Being.

Lake Carriers' Association's members move massive amounts of dry-bulk cargo on the Great Lakes. Although the economy has yet to fully emerge from the recession, our members carried almost 90 million tons of iron ore, coal, limestone, cement, salt, sand and grain in 2012. The table below lists cargo volumes for the period 2007-2012:

U.S.-Flag Dry-Bulk Cargo Carriage on the Great Lakes: 2007-2012 and 5-Year Average

(net tons)

COMMODITY	2007	2008	2009	2010	2011	2012	AVERAGE 2007-2011
IRON ORE							
Direct Shipments	45,049,721	45,329,607	23,271,702	39,663,547	44,443,975	42,700,840	39,551,710
Transshipments.....	2,156,662	1,893,887	759,385	2,364,871	2,780,768	2,488,187	1,991,115
Total - Iron Ore.....	47,206,383	47,223,494	24,031,087	42,028,418	47,224,743	45,189,0271	41,542,825
COAL (By Lake of Loading)							
Lake Superior	16,692,347	17,962,580	15,427,708	15,847,574	12,954,188	11,947,617	15,776,879
Lake Michigan	2,718,874	3,253,001	1,996,793	2,017,395	3,166,372	2,654,506	2,630,487
Lake Erie	5,759,408	3,756,042	3,250,387	3,674,897	4,118,767	2,977,825	4,111,900
Total - Coal.....	25,170,629	24,971,623	20,674,888	21,539,866	20,239,327	17,579,948	22,519,267
LIMESTONE	25,966,057	23,632,070	17,067,232	20,410,266	21,434,839	21,794,394	21,702,093
CEMENT	3,602,488	3,294,071	2,865,323	2,782,259	2,817,846	3,183,388	3,072,397
SALT	1,241,297	1,224,769	1,260,901	1,391,239	1,452,134	1,020,157	1,314,068
SAND	449,474	359,191	262,805	225,593	332,172	336,316	325,847
GRAIN.....	404,923	247,597	304,507	306,872	283,200	371,406	309,410
Total -	104,041,251	100,952,815	66,466,743	88,684,513	93,784,261	89,474,636	90,785,907

Source: LCA 2012 Statistical Annual Report

These cargos are the foundation of America's economy. The iron ore feeds the nation's steel mills. It takes approximately 1.5 tons of iron ore to make a ton of steel and the Great Lakes basin is home to 50 percent of the nation's steelmaking capacity.¹ Virtually all of the United States usable iron ore comes from mines in Minnesota and Michigan and the vast majority of their production is shipped on the Great Lakes.²

The coal powers the region's utilities and the limestone serves both the construction industry (aggregate) and steelmaking (fluxstone [used as a purifying agent in the steelmaking process]). Cement is likewise for construction projects. The salt de-ices wintry roads and sidewalks. Sand is primarily used in industrial applications and grain is ground into flour.

¹ ArcelorMittal and American Iron and Steel Institute.

² Kakela, Peter, J., "The Economic Value of Iron Ore Transiting the Soo Locks," Michigan S. Univ. (June 7, 2013).

The volume of cargo moved by LCA members is but one measure of the importance of Great Lakes shipping. The economies of waterborne commerce are key to the competitiveness of major employers such as steelmakers, utilities, construction companies and many other industries. The U.S. Army Corps of Engineers estimates that Great Lakes shipping annually saves its customers \$3.6 billion in freight costs compared to the next least costly mode of transportation.³ A report released by the U.S. Maritime Administration in February 2013 states that “studies have demonstrated that, on average, transportation cost savings from \$10 to more than \$20 per ton of bulk cargo as associated with the use of lakers compared to the next most competitive transportation mode (rail or truck).⁴

The environment also benefits when cargo moves on the Great Lakes. The previously cited 2009 U.S. Army Corps report states that a cargo of 1,000 tons transported by a Great Lakes freighter produces 90 percent less carbon dioxide as compared to the same volume transported by truck and 70 percent less if the cargo is moved by rail. Those percentages will get even better as LCA members continue to repower their vessels. One member is even planning to begin switching to liquefied natural gas as early as 2015 if the engineering and infrastructure challenges can be met.

Vessels are much more fuel efficient than trains and trucks. The Corps report states that a Great Lakes freighter sails 607 miles on one gallon of fuel per ton of cargo, whereas a train goes only 202 miles and a truck a mere 59 miles.

B. Safety of the crew on our members' vessels requires deck cleaning that could result in the incidental discharge of small amounts of DCR, but years of study have time and again demonstrated that these cargo sweepings are non-toxic and non-hazardous, so the practice has never and will never pose a threat to the environment.

We appreciate that the FEIS acknowledges that DCR “can pose safety hazards to vessel crews, who may slip on dust or small particles on decks or in unloading tunnels, and damage equipment. To alleviate these safety and operational hazards, DCR is washed or discharged from the deck or pumped over board from the unloading tunnels in the lower hull.”⁵

Crew safety is, of course, paramount, but protection of the marine environment is close behind. It is therefore imperative that the USCG carefully analyze the chemical composition of DCR. The FEIS reaffirms that DCR is neither hazardous nor toxic and discharge poses no threat to the environment.⁶ That context is essential to strike the appropriate balance between economic and environmental concerns that can be achieved, given currently available information.

³ U.S. Army Corps of Engineers, Great Lakes Navigation System: Economic Strength to the Nation (Feb. 2009).

⁴ U.S. Maritime Administration, Status of the U.S.-Flag Great Lakes Water Transportation Industry (Feb. 2013).

⁵ USCG, Tiered Final Environmental Impact Statement: U.S. Coast Guard Rulemaking for Dry Cargo Residue Discharges in the Great Lakes, at 1-1 (Feb. 2013) (“FEIS”).

⁶ *Id.* at 1-3 (“Testing of primary cargo types, sediments and animal tissue, and toxicity effects of lake sediment did not demonstrate a risk associated with chemicals in DCR.”).

While every effort is made to minimize DCR, it is unavoidable that some *de minimus* amounts of cargo material will spill on deck during loading and unloading and in the tunnels when unloading. It must be kept in mind that there is no financial incentive for a vessel to permit any cargo to be discharged. Therefore, LCA members have installed equipment on their vessels to minimize DCR discharges, such as enclosed and troughed conveyors, skirting, belt scrapers, cargo hold vibrators to loosen sticky cargos, sprayers to wet cargos and minimize dust, and capacity indicators to warn when the system is being overloaded. Crews are carefully trained on proper operation and maintenance of loading and unloading systems, and are provided shovels to return DCR to the cargo hold or unloading belt when there is some spillage.

The FEIS further acknowledges that notwithstanding the difficulties associated with trying to estimate the amount of DCR discharged each time a vessel loads or unloads, the quantities involved are by every measure insignificant.⁷

C. LCA supports the USCG's preferred alternative, Alternative 2: Performance Requirement to Minimize DCR, but believes maintaining decks in a "shovel-clean" state will achieve the desired minimization of DCR.

Alternative 2, Performance Requirement to Minimize DCR, requires that the vessels decks be maintained in a "broom-clean" standard. Broom clean is defined in the FEIS as:

A condition in which deck residues consist only of dust, powder, or isolated and random pieces, none of which exceeds 1 inch in diameter.⁸

In contrast, in the SNPR the term is defined as:

Broom clean means a condition in which the vessel's deck shows that care has been taken to prevent or eliminate any visible concentration of bulk dry cargo residues, so that any remaining bulk dry cargo residues consist only of dust, powder, or isolated and random pieces, none of which exceeds 1 inch in diameter.⁹

It is unclear if the intent is to change the proposed definition so as to eliminate the first sentence and preserve only the second. LCA does not object to a standard that calls for the deck residue to

⁷ *Id.* at 1-23 ("Thus the voluntary reported DCR quantities were consistently 0.0005 to 0.0006 percent of the entire cargo transported during the voluntary reporting period.")

⁸ *Id.* at XXIII.

⁹ 77 Fed. Reg. at 44,541. It is unclear if the FEIS is suggesting that there will be changes to the language contained in the SNPR when the final rule is published. It is also not clear that the agency may use the FEIS process to propose those changes, or must do so in an additional notice of rulemaking. LCA is commenting on these changes as well, but has some concerns that the process may be flawed.

be limited to dust, powder, or isolated and random pieces of cargo material that generally do not exceed one inch in length. However, the first sentence is far more significant, as it requires proof of care to eliminate “any” visible concentrations of bulk dry cargo residues. Dust and powder can be visible.

Until now, the term “broom-clean” has been used to describe the condition that a house or apartment must be left in when ownership or possession is transferred.¹⁰ It has never been used in the maritime context. In fact, describing this as a “shovel-clean” condition will produce the desired result, while more accurately reflecting standard shipboard practices. Cargo that has spilled on deck or in the tunnels is shoveled back into the cargo hold or onto the unloading conveyor. What remains is some dusty or powdery residue and stray, small pieces of cargo material. Therefore, the term “shovel clean” should be used as a short-handed reference to the standard described in the FEIS.

The term “broom clean” is also confusing given its real estate context use, and could be taken to mean the deck must be nearly or entirely devoid of even dust and small residues of cargo material. To achieve that will significantly increase loading and discharge times. That will not only increase the cost of transporting cargo on the Great Lakes, it will conceivably reduce the capacity of the Great Lakes Navigation System. The vessels are already operating at their most efficient speed; increases in speed are sustainable for only short periods of time and only when absolutely necessary, such as to reach a safe harbor when weather threatens. Furthermore, from a hydrodynamics standpoint, once a vessel reaches full hull speed, it takes a doubling of the horsepower and fuel to achieve a significant increase in speed. Based on the economics of Great Lakes shipping, it does not make sense to double fuel costs to increase speed by 3 mph in order to compensate for the time lost attempting to achieve the “broom clean” standard. There is no appreciable environmental benefit to imposing this standard, and the costs are significant.

Whatever standard is promulgated in the Final Rule, provision must be made for safety, operational, and weather considerations. For example, crew members are not allowed to work under or close to a loading rig when it is in operation. Delaying the vessel to finish shoveling up before getting underway is not necessary to achieve the goals of minimizing DCR. The Master must have the ability to decide that expected weather conditions will allow the vessel to get underway and have a crew member(s) finish the clean-up at another time.

Furthermore, as explained in our comments to the 2012 SNPR, the shipping season begins and ends with frigid temperatures and ice-covered decks. If a final rule is promulgated that imposes this requirement, it must have a specific provision addressing safety, and in particular, addressing situations when the deck is snow- or ice-covered. In order to remove debris when the deck is covered with ice, crewmembers will have to use the fire hose to clear the ice from the deck with

¹⁰ See, e.g., <http://www.answers.com/topic/broom-clean-1>;
<http://tenant.net/forum/board/messages/arcs00/arcs0011/11046.html>;
<http://boards.answers.findlaw.com/index.php/topic/67380-definition-of-broom-clean-condition/> (last accessed Oct. 21, 2013).

hot water, which means most of the DCR would be washed overboard with the ice. Also, the energy used to heat that much water would offset the environmental benefit of loosening the snowpack or ice to the point where it is possible to shovel the traces of DCR back into the holds. Again, it should be the Master's decision if conditions make shovel cleaning the deck feasible under wintry conditions or when heavy rains are falling. This was pointed out in our comments to the SNPR.

D. Reporting Obligations under the Preferred Alternative Should Not Require Vessel Owners/Operators to Estimate DCR Discharge Volumes

The preferred alternative would require vessel owners/operators to keep onboard records of (1) where and when DCR discharges take place; (2) the type of DCR discharged; and (3) the estimated volume of each discharge.¹¹ While the preferred alternative would not require the use of a specific form for the required recordkeeping, it would still require vessel owners/operators to estimate volumes of DCR discharges that USCG itself has said are difficult to estimate and unreliable. For instance, in evaluating the results of several hundred DCR reporting forms received by the USCG from Great Lakes dry cargo carriers during the USCG's examination of DCR practices and control measures in 2008 and 2009, USCG noted that "it is inherently difficult to accurately and consistently estimate the quantity of DCR given the size and configuration of the vessel area where DCR accumulates and the variability from area to area."¹² Similarly, "[t]he extreme values and extremely wide range of DCR discharge volume estimates reflect the inherent difficulty in estimating DCR volumes, a range of attentiveness to DCR discharge control by the vessels' and shoreside loading facilities' crews and employees, and a lack of understanding and accuracy in estimating."¹³ DCR, to the extent it exists, is not confined to specific and discrete locations - it can be a thin covering in random places, and nonexistent in others, with random pieces of cargo in additional isolated locations. As a result, it is impossible to quantify. Even the experts who observed 30 instances of loading and unloading provided no explanation regarding how they estimated the amount of DCR that was present.¹⁴ It would be unreasonable under these circumstances to impose such a requirement on the regulated community, particularly in light of the serious sanctions that can accompany inaccurate reporting, regardless of the good faith efforts that are made.

The preferred alternative would require vessels to implement management plans that minimize DCR discharges and that are updated and revised as new control technologies and techniques are developed. Given the extreme variability inherent in estimating DCR discharge volumes, vessel owner/operators should not be required to record what is essentially pure guesswork and subjective judgment. Records of these estimates will not provide useful and/or reliable data, particularly when management plans are implemented that are designed to minimize DCR discharges. LCA recommends that the final DCR rule require vessel owners/operators to develop

¹¹ *Id.* at 2-10.

¹² *Id.* at 1-20.

¹³ *Id.* at 1-20 to 1-21.

¹⁴ *Id.* at Appendices G and I.

and maintain onboard records of (1) where and when DCR discharges take place; (2) the type of DCR discharged; and (3) what management plan procedures were utilized to minimize DCR discharges. Such records would allow the USCG to ensure that management plans are being implemented and that DCR discharges are being minimized. Furthermore, eliminating the DCR discharge volume estimating requirement will reduce the burden on vessel owners/operators to "guesstimate" their DCR discharge volumes and remove the potential that this data would be relied upon in future rulemakings, despite it being extremely variable and inherently unreliable.

E. We do not object to the requirement that each of our members have Dry Cargo Residue Management Plans for each of their vessels to minimize DCR, but this requirement must recognize that there will be a great deal of similarity between the plans.

The FEIS seems to be premised on the requirement that there be "vessel-specific" Dry Cargo Management Plans. While each vessel must have its own plan, in reality those plans may well be identical across a number of vessels, and the fact that they are identical does not mean that they are not vessel-specific. There is a great deal of commonality among LCA member vessels. They differ in length, beam and age, but as self-unloading dry-bulk carriers, they are virtually identical in how they load and unload cargo.

In terms of loading, the size and number of hatches will vary from vessel to vessel, but there are seldom many differences in the process. The hatch covers are removed and the vessel positioned such that the holds are lined up under the loading equipment. Cargo is then loaded either via mechanized conveyors or gravity-fed chutes. Some docks have multiple boat loaders, others just one, but on a practical level, there is no difference between vessels or loading docks.

There are very few differences in the unloading process. Gates at the bottom of the hold are opened and cargo drops onto a conveyor belt. Some vessels have one belt running under the hold; some have as many as three, but again, in terms of DCR generation and minimization, there is no real difference in the unloading process.

Two vessels employ buckets to collect cargo from the belt under the hold and then drop it on the conveyor belt that feeds the unloading boom on deck, but that difference is of little consequence when addressing DCR.

There is also a great deal of commonality in terms of cargo carried. Many vessels carry iron ore, coal and limestone, and while only a few vessels carry salt and sand, that is a reflection of the contracts held by the vessel owner, not some design or operational factor that can be met only by those few vessels. The only vessels that are truly unique in terms of loading and discharge are the cement carriers. Both their loading and unloading is an enclosed process, so only vessels designed to load and discharge cement can engage in that trade.

A few vessels are largely dedicated to one cargo, but if market conditions so dictated, they could engage in the other dry-bulk trades.

Our members' vessels also share many loading and unloading docks. For example, in 2012, 29 of the 56 dry-bulk carriers enrolled in LCA loaded iron ore at the DM&IR docks in Duluth and Two Harbors, Minnesota. Twenty-one LCA vessels loaded coal in Toledo and Sandusky, Ohio. Twenty-three loaded limestone at Presque Isle (Stoneport), Michigan.

It follows then that the procedures and equipment called for in the required Dry Cargo Residue Management Plan will be very similar from vessel to vessel and from operator to operator.

- F. Moving dry-bulk cargo on self-unloading vessels is unique to the Great Lakes, and this new rule contains ambiguous and subjective standards, so it is imperative that the USCG produce either a supplemental NVIC or manual so that the frequent rotation of personnel does not lead to inconsistent interpretation and application of the Final Rule.**

We recognize that the USCG must rotate its personnel for training and advancement purposes. However, that means every few years industry must introduce itself to new personnel and explain the differences between Great Lakes shipping and shipping on our coasts and inland waterways. An inspector coming from the West Coast will have never seen a 70-year-old vessel with a riveted hull or a 1,000-foot-long vessel able to unload 65,000 tons of cargo in 12 hours or less without any assistance from shoreside personnel. Great Lakes shipping is operationally unique and it is important that inspectors transferred to the Lakes are familiarized with the practice and what constitutes compliance with the final DCR rule before they begin their new duties. The FEIS includes some photos of shipboard conditions and equipment. It will be appropriate to develop a similarly illustrated NVIC or manual.

- G. State Law May be Preempted by USCG Regulations Governing Dry Cargo Residue Discharges.**

In reiterating its response to comments on the Phase I Draft EIS, the USCG states that it:

[H]as the authority to regulate the discharge of DCR in the Great Lakes by Congressional authorization (2004), "notwithstanding any other law." This authority does not preempt state laws that may prohibit solid waste discharge in the Great Lakes, and state laws are not believed to conflict with an overriding Federal purpose in regulating DCR.¹⁵

At the same time, in the SNPR the USCG recognized that the question of federal preemption is far from settled, when it said:

To clarify our Federalism statement in accordance with the responsibilities and the principles contained in EO 13132 regarding

¹⁵ *Id.* at 1-4.

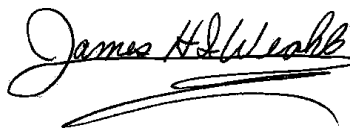
Federalism, the Coast Guard states that this regulation does not expressly preempt those State laws. Nor does the Coast Guard by promulgating this regulation take the position that such State laws facially frustrate an over-riding federal purpose. However, the ultimate question regarding preemption of State laws is a legal question that is subject to court interpretation and decision based on the application of particular facts to those individual laws. Because no court has ruled on the questions raised, the Coast Guard cautions carriers that they must comply with all applicable Federal and State laws regulating DCR discharges. We will work with States and carriers to make sure carriers are informed of any State laws that could impose more restrictions on DCR discharges than we have proposed.

73 Fed. Reg. 563497. LCA has serious concerns regarding whether the extensive, detailed regulation of this matter by the USCG may, in fact, preempt state laws, but also agrees that this matter may be resolved at a later date.

III. Conclusions

LCA and its members have fully cooperated with the analysis and studies that have taken place since the USCG began to regulate dry cargo residue in 1993. We share the public's desire to protect the Great Lakes environment and have never questioned the need to thoroughly assess the impacts of discharges of DCR in the Great Lakes. Now as we enter the 20th year of research and analysis, it is time to take the findings of the FEIS and produce a final DCR rule that facilitates safe and efficient shipping and protects waters that are the source of drinking water for 40 million North Americans. We can achieve that goal by implementing the preferred alternative with revisions recommended in these comments.

Very respectfully,

A handwritten signature in black ink, reading "James H. I. Weakley". The signature is written in a cursive style with a prominent flourish at the end.

James H. I. Weakley
President