I hope my responses are still able to be considered.

Why research and education are needed.

A) Research is needed to develop technologies that may be able to be used aboard a wide variety of ships. Specifically, large bulk ships and tankers have multiple ballast pumps and are known to be able to pump over 70,000 gallons per minute. There are not filters, chemicals, or other systems in existence today that can treat 50-75,000 tons of ballast water at that flow rate.

Views on the pending NIASA legislation.

A) We have two issues with the pending legislation. First, the definition of "hydrographically distinct zone" must be clear and include the Great Lakes as hydrographically distinct. Vessels that operate strictly within the Great Lakes must not be required to install treatment systems or perform ballast exchange. The issue is foreign ships coming into the Great Lakes and dumping invasive species in our waters. Second, the grandfathering provision of any technology is 10 years and can only be extended beyond 10 years if that technology meets the new standard that is in place at the time of the extension request. Ship owners cannot be expected to install expensive systems that cannot last longer than 10 years.

Thank You Rick Harkins VP Operations Lake Carriers' Association