



**Buzzards Bay Project**  
*National Estuary Program*

Captain Mary Landry, Commanding Officer  
USCG Marine Safety Office  
20 Risho Ave.  
East Providence, RI 02914-1208

February 3, 2004

Captain Landry:

The Buzzards Bay Project National Estuary Program has reviewed the report titled "Investigation and reconciliation of cargo quantities for Bouchard No. 120 oil spill at Buzzards Bay, April 2003," dated June 14, 2003. The report was funded by Bouchard Transportation Co. Inc., and prepared by David A. Hall, a marine surveyor and consultant for the firm Independent Maritime Consulting Ltd. The report was presented to the US Coast Guard, Massachusetts Department of Environmental Protection, and other agencies involved with the spill. The report seeks to estimate how much of the 435,000 gallons of Number 6 fuel oil in number two starboard tank leaked into Buzzards Bay from a 12'-by-2' rupture caused by striking bottom. The report concluded that the amount of No. 6 fuel oil spilled was between 22,000 and 52,000 gallons, sharply in contrast to earlier estimates of 98,000 gallons.

My interim report on Hall's Analysis is attached. The Buzzards Bay Project undertook this review because it is of interest to the NRDA Aquatic Injury Technical Work Group (of which I am a member), particularly with respect to models that may be employed in assessing injuries caused by the spill. The volume of oil is also of interest to managers who want to better understand the costs and impacts associated with a specific quantity of No. 6 oil, and how those costs compare to other spills.

As you know, the first definitive estimate of oil spilled from the Bouchard No. 120, was based on ullage reports prepared by inspectors from the independent cargo certification company Caleb Brett, a division of Intertek Testing Services. The reported 98,000 gallons of oil spilled was based on the difference in ullage measurements taken while the Bouchard 120 was anchored in Buzzards Bay on April 28 and when it left New York.

Mr. Hall discounts the Caleb Brett inspector's ullage measurements in Buzzards Bay because he asserts they were made under adverse conditions and for other reasons. However, conditions during the measurements were not as adverse as stated, and he ignores two additional sets of calculations of oil volume made by Caleb Brett inspectors days later at the Mirant facility in the Cape Cod Canal. These later measurements of oil volume are highly consistent with the earlier estimated loss of 98,000 gallons in Buzzards Bay.

While dismissing the Caleb Brett measurements out of hand, Mr. Hall's calculations are highly dependent on estimates of oil received at the Caddell shipyards. These measurements were made after multiple transfers of oil and water, and hot water washes. There appear to be inconsistencies in the data, questionable approaches, and apparent selective application of methods, which need clarification and justification. Some of the oil volumes documented appear not to have been accounted for in the starting volume calculations. Until these issues are resolved, the most conservative assumption seems to be that roughly 97,000 gallons of oil was spilled in Buzzards Bay.

Sincerely,

Joseph E. Costa, PhD  
Executive Director

cc. NRDA Trustees, Richard Packard (Massachusetts DEP), Aquatic Injury Technical Work Group, David Hall (Independent Marine Consultants, Ltd.)

