METHODS OF PREPARING SOLID FORMATIONS OF NON-VOLATILE BITUMINOUS MATERIALS SUITABLE FOR REDUCING CARBON DIOXIDE EMISSIONS DURING TRANSPORT

ABSTRACT

A method of preparing non-volatile bituminous material in solid form includes first accessing molds having mold cavities defining an irregularly shaped brick having a plurality of non-planar surfaces and preparing the bituminous material for casting by heating it until it is suitably viscous for casting and optionally blending it with an additive. Then, the molds can be filled with the bituminous materials, preferably using a retractable conduit that progressively fills each mold cavity from its bottom to its top. Next, the bituminous material in the molds is solidified until substantially solid bricks are formed. Optionally, a skeleton with optional additional buoyant features can be placed in each mold cavity prior to casting so that the resulting brick has increased buoyancy throughout, and the skeleton and any buoyant features can be customized according to the needs of the customer. The resulting bricks can be removed for transport.

Fig. 3A