MarTREC
Maritime Transportation Research & Education Center

MarTREC UTC Project Information Form
USDOT Tier 1 University Transportation Center
Agency ID or Contract Number DTRT13-G-UTC50

Project Title: LNG Bunkering for Marine Vessels @ the Port of New Orleans : Siting and Facility Components
Project Abstract (Brief Description): The Port of New Orleans has expressed interest in investigating the physical, operational and safety issues associated with an LNG Bunkering Facility sited within their jurisdiction. UNOTI is conducting a best-practices assessment based on the most current research documents and discussions with maritime leaders in the Greater New Orleans area. Reports reviewed include the recently released ABS authored "Bunkering of Liquefied Natural Gas-fueled Marine Vessels in North America" as well an on-going professional journals and related publications including a series of White Papers by FC Gas Intelligence and related resources. UNOTI is also conducting on-site inspections of the Harvey Gulf LNG Bunkering station under construction at Port Fourchon and is planning on interviewing key-decision-makers who participated in the permitting of this facility.
Describe Implementation of Research Outcomes (or why not implemented) - Concerning any extant best practices which could be adapted to LNG bunkering at the Port of New Orleans, our USCG focus group directed us to the federal regulations concerning port-sited LNG bunkering facilities, which are detailed in CFR 33-127. This is the only extant record of best practices by federal officials. Our focus group discussion led us to the three primary factors taken into account by the USCG when considering the Port of New Orleans as a site for the bunkering of LNG as a marine fuel: severe weather probabilities, proximity to neighborhoods, and proximity to roadways. Secondly, regarding the acceleration of LNG as an industrial feedstock for new industry however, our fieldwork revealed a petrochemical manufacturing boom in the parishes between New Orleans and Baton Rouge. Thirdly, Louisiana is experiencing a new cargo export potential with LNG and the construction of the required LNG Export Terminals in diverse locations.
Impacts/Benefits of Implementation (actual, not anticipated) After spending over 15 months researching LNG as a marine fuel, UNOTI personnel have determined that, to quote Gertrude Stein "There is no there, there." Recent interviews with officials at the USCG Sector New Orleans and MARAD have confirmed this opinion: the relative cost of a barrel of crude oil will remain depressed for the near term. Furthermore, at the current time there is no interest in using LNG as a marine fuel within the Lower Mississippi River region. Primarily this lack of interest is due to the overall energy sector being in turmoil, caused by the decreasing cost of oil. Projections for the future range widely with some experts predicting costs to decrease to $20.00 per barrel within this decade while others speculate that the price of oil will reach $90.00 by 2020 (see Murray, 2015; Conti, 2014). As a result, the future for the energy sector currently is quite blurry. In this environment, large scale investment decisions are being put on hold for at least 5 years by shipping companies, marine terminal operators, port authorities or other financial interests, particularly in the United States, when it comes to LNG as a marine fuel. But UNOTI has summarized other LNG facilities under development or soon to be operational in Louisiana. This project provides a detailed assessment of the impact of LNG as an inexpensive feedstock for industries involved in the production of chemicals, fertilizers or related products. But for all these categories, the economics of LNG and the energy sector in particular, is key. Crude oil costs continue downward while LNG remains very inexpensive for industrial users.
Web Links: www.transportation.uno.edu
Budget (Funding) Amounts & Source(s) (US DOT +Match(s) =Total Costs): $125,042 USDOT UTC Funds $62, 521 Port of New Orleans Match = total cost of $187,563

Project Start and End Dates: April 15, 2014 – December 31, 2014. A no cost extension has been granted to January 31, 2016. Project Complete.
Principal Investigator(s) and Contact Information: Dr. Bethany Stich, UNOTI Associate Research Director; James R. Amdal, Sr. Research Associate; Kyle Griffith, Graduate Assistant
Principal Investigator Institution (University): University of New Orleans Transportation Institute

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