The following links provide information on the impact of XPS foam insulation on GHG emissions.

"Design Considerations for Sustainable Extruded Polystyrene (XPS) Thermal Insulation" by ASTM. The link to purchase a PDF copy of the paper is found at <a href="http://www.astm.org/DIGITAL\_LIBRARY/STP/PAGES/STP157420130089.htm">http://www.astm.org/DIGITAL\_LIBRARY/STP/PAGES/STP157420130089.htm</a>

"Life Cycle Greenhouse Gas Emissions Reduction From Rigid Thermal Insulation Use in Buildings", Mazor et al, Journal of Industrial Ecology, V15, N2, 2011.

## https://doc-0s-1k-apps-

viewer.googleusercontent.com/viewer/secure/pdf/o8bi0emlo7n536vu1u0a64ao2lb7vk6f/cp0g8pt1c56v6fhfq5a4mq4dp7rgbpbp/1404936900000/gmail/17699914468647176022/ACFrOgAHIFwDfdhJDbRFpTQpXVp245mtl0DvMeH2B3lNV0atuVi6nozRE8aB0ljKG-

 $y02kCwSpbINRU3pIIRp6Ys\_fLRSzgCvoL1KxtB\_g\_YshlC2ahETildzrhtek=?print=true &nonce=06lfo65plg64k&user=17699914468647176022\&hash=9kkltc4fqqrpldpenru2h9gnojkeahh0$ 

To aid in the assessment of life cycle and end of life for 134a blowing agent used in building insulation products, see the report, "Foam GHG Inventory Draft Report". Sponsored by and provided to The California Air Resources Board (CARB) and the California Environmental Protection Agency by an outside contractor.