



BBS MEMO

Ohio Board of Building Standards

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6606 Tussing Road, P.O. Box 4009, Reynoldsburg, Ohio 43068-9009

NATURAL GAS LIQUIDS FRACTIONATION OR NATURAL GAS PROCESSING FACILITIES

With the discovery of the Utica and Marcellus shale formations, which exist under a significant part of eastern Ohio, development of fractionation and processing facilities for the extracted raw materials has begun. On March 12, 2012, the Board of Building Standards (Board) amended the Ohio Building Code (OBC) to provide that certification by the Board of a municipal, township, or county building department does not confer jurisdiction to such certified building department to regulate the construction of buildings or structures on the premises of and directly related to the operation of all natural gas liquids fractionation or natural gas processing facilities. The Board also amended the OBC to include definitions for the terms "natural gas liquids fractionation facilities" and "natural gas processing facilities." As a result of this amendment, the Division of Industrial Compliance within the Ohio Department of Commerce is granted exclusive jurisdiction to regulate the construction of buildings or structures within the scope of the Ohio Building Code on the premises of and directly related to the operation of all natural gas liquids fractionation or processing facilities in the State. This language can be found in OBC § 102.11(5.3):



“The construction of buildings or structures within the scope of the building code on the premises of, and directly related to the operation of, natural gas liquids fractionation or natural gas processing facilities.”

As natural gas liquids fractionation and processing facilities are constructed in Ohio, the question has arisen as to what extent the buildings or structures on these sites fall within the scope of the building code. The Ohio Revised Code defines “Building” as “Any structure consisting of foundations, walls, columns, girders, beams, floors, and roof, or a combination of any number of these parts, with or without other parts or appurtenances.” While it is certain that there are many foundations, columns, beams, etc. on the premises of natural gas liquids fractionation or processing facilities, this does not mean that all of the footings, thrust pads, piping supports, tank supports, and other components found on such a site are “buildings” and are regulated by the OBC.

OBC § 102.10 lists those things which are exempt from the code. Process equipment and associated wiring are included in this list under the heading “Electrical”. Also, process equipment and the associated piping are included in this list under headings “Mechanical” and “Plumbing”. The OBC defines “Process Piping” and “Processing Equipment” as:

PROCESS PIPING. *Piping systems and their component parts that are not building services or power piping systems and that may be installed in petroleum refineries; chemical, pharmaceutical, textile, paper, semiconductor, and cryogenic plants; and related processing plants and terminals.*

PROCESSING EQUIPMENT. *Equipment, machinery and devices specifically intended and used exclusively for manufacturing and other similar purposes. Processing equipment does not include the building electrical service and distribution system, mechanical and plumbing systems related to space heating, air conditioning, ventilation, water distribution and sanitation or other systems regulated by board rules.*

Note that process piping includes its “component parts.” In addition to the piping systems at natural gas liquids fractionation or processing facilities, which would clearly be exempt from the code under the definition of process piping, there are also

large numbers of piping supports, brackets, stands, concrete pads, tanks, tank stands, etc. These supports, brackets, stands, concrete pads, tanks, tank stands, etc. are necessary component parts of the process piping and without these the process piping and equipment could not be configured. Therefore, these too are exempt from the OBC as component parts of the process piping. The definition of “Process Piping” further states that process piping is installed in such facilities as “*petroleum refineries; chemical, pharmaceutical, textile, paper, semiconductor, and cryogenic plants; and related processing plants and terminals*” and, as such, are not part of building services systems.

The OBC reinforces the distinction by defining “Building Service Equipment” as:

BUILDING SERVICE EQUIPMENT. *Equipment, materials, devices, and systems integrated into a building which provides air conditioning, fire protection, lighting, electricity, sanitation, water, space heating, ventilation and other media such as gases and fluids for use within a building. Processing equipment is not part of the building service equipment. Building service equipment begins from the utility supply/connection point through point of use but does not include processing equipment.*

Building service systems allow for the safe, sanitary, and energy efficient occupancy of a building and are within the scope of the OBC while industrial processes, piping, equipment, components, and systems are not.

It should be noted that Ohio Building Code Chapter 4 applies to hazardous materials and addresses the risks within buildings or structures occupied for the manufacturing, processing, dispensing, or storage of hazardous materials, and outside buildings when associated with building service equipment. While natural gas liquids could be categorized as hazardous materials, the piping, piping supports, brackets, stands, concrete pads, tanks, tank stands, etc. located out-of-doors at natural gas liquids fractionation or processing facilities are not within the scope of the OBC (i.e. they are not associated with building service equipment). Consequently, a code user would never reach the requirements in Chapter 4 because the process piping and the associated component parts and equipment at natural gas liquids fractionation or processing facilities are outside the scope of the Code in accordance with OBC Chapters 1 and 2 and as discussed above.

It is the Board’s position that piping supports, brackets, stands, concrete pads, tanks, tank stands, etc. are component parts of process piping in natural gas liquids fractionation or processing facilities and, as a result, are outside the scope of the Board’s rules. Any other occupied building or structure such as a garage, control building, office, etc. located on the premises of and directly related to the operation a natural gas liquids fractionation or processing facility would fall within the scope of the OBC and would be regulated exclusively by the Division of Industrial of Compliance for compliance with the code. OBC §414 should only be applied to occupiable buildings or structures at natural gas liquids fractionation or processing facilities in which the use, manufacturing, processing, or storage of hazardous materials occurs.