



Minutes

**Thomas Township Construction Board of Appeals
Public Safety Building
8215 Shields Dr Saginaw, MI 48609
Monday, December 9, 2024 at 5:00 p.m.**

Members Present:

R. Keith
J. Lazzaro
C. Leddy
L. Moeller

Others Present:

D. Sika – Community Development Director
A. Bicigo – Code Enforcer/Planning Asst.
M. Cousins – Fire Chief
6 Interested Parties

Members Absent:

None

Lazzaro called the meeting to order at 5:00 p.m.

Election of Officers:

Motion by Lazzaro, supported by Moeller to elect Rick Keith as chairperson.

Vote: Yeas: 4 Nays: 0 Absent: 0 Motion Carried

Motion by Keith, supported by Moeller to elect Craig Leddy as vice chairperson.

Vote: Yeas: 4 Nays: 0 Absent: 0 Motion Carried

Approval of Agenda:

Motion by Lazzaro, supported by Moeller to approve the agenda as presented.

Vote: Yeas: 4 Nays: 0 Absent: 0 Motion Carried

Consent Agenda:

Motion by Lazzaro, supported by Leddy to approve the minutes of the July 25, 2000 meeting.

Vote: Yeas: 4 Nays: 0 Absent: 0 Motion Carried

Hearings:

a. Linde PLC – Request for Variance to Michigan Building Code Sprinkler Requirement

Keith opened the Public Hearing at 5:03 p.m.

Christian Rauchegger from Linde PLC presented their request for a variance to the sprinkler requirements found in the Michigan Building Code section 307.4 High-Hazard Group 2, and 903.2.5 Group H. Rauchegger explained that the building in question houses equipment used to produce hydrogen for use in other parts of the plant, and is not occupied by personnel other than on operator runs. Their request is to use engineering safeguards in lieu of sprinklers because of safety concerns related to possibility of an explosion. A hydrogen leak can happen at a flange resulting in either a fire at the flange, or a buildup of hydrogen gas in the building. A flange fire is preferred over a hydrogen buildup, as a buildup can lead to an explosion large enough to damage surrounding structures and endanger personnel. If a sprinkler system extinguishes a flange fire, it can cause this type of buildup. With the proposed engineering safeguards, a fire can be detected quickly, at which time the hydrogen supply can be turned off at the shutoff valves. Once the fire burns through the supply of hydrogen in the pipes, it extinguishes itself. A leak with no ignition also triggers the engineering safeguards. When the array of gas detectors in the facility detects an enrichment of flammable gas, the ventilation system turns on preventing the gas from reaching a dangerous percentage. At 10% of the Lower Explosion Limit (LEL) for hydrogen gas, the ventilation system turns on. If the gas reaches 20% of the LEL, the safeguards turn off the supply of hydrogen in the building and depressurize the system. Lazzaro asked whether or not the facility would have backup power to run the proposed safeguards, to which Rauchegger replied in the affirmative. There were also questions from the board as to non-hydrogen related fires. Rauchegger explained that there will be very little flammable material in the building outside of the hydrogen. There will also be fire extinguishers strategically placed in the event of a non-hydrogen fire. The board also inquired about the sensors and detectors used. Rauchegger stated there will be smoke and thermal detection, in addition to the gas detectors placed strategically where hydrogen could potentially build up. These detectors will set off alarms to the control station, as well as automatically cutting off the hydrogen supply and activating the exhaust system. Thomas Township Fire Chief Cousins gave additional background information and spoke in favor of Linde PLC's alternative to a sprinkler system. There was no additional public comment.

Keith closed the public hearing at 5:20 p.m.

Motion by Keith, supported by Moeller to approve the request from Linde PLC for a variance to use engineering safeguards in lieu of sprinklers as required by Section 307.4 High-Hazard Group 2 and 903.2.5 Group H of the Michigan Building Code for a Steam Methane Reformer Process Building located at 12335 Geddes Rd, Parcel # 28-12-3-18-3002-000.

Vote: Yeas: 4 Nays: 0 Absent: 0 Motion Carried

Adjournment:

Motion by Lazzaro, supported by Moeller to adjourn the meeting at 5:21 p.m.

Vote: Yeas: 4 Nays: 0 Absent: 0 Motion Carried