

Biodiesel fire code variance toolkit



MINNESOTA DEPARTMENT OF PUBLIC SAFETY STATE FIRE MARSHAL

Background

This toolkit has been created to assist local jurisdictions navigating the process to allow for commercial dispensing of biodiesel fuels greater than 20 within their community. This is in accordance with the current edition of the Minnesota State Fire Code (MSFC) 2020 (based off the 2018 International Fire Code).

According to the MSFC, all equipment for fuel dispensing including but not limited to hoses, nozzles and dispensers must be listed (MSFC 2306.7.1). Currently, there are no known fully listed fueling systems for biodiesel fuels greater than 20.

Due to the lack of listed fueling systems currently on the market, MSFC provides for a variance process for private fueling operations (such as for a municipal bus operation). When considering a variance request, the following process has been established. This toolkit is designed to specifically assist with the process in relation to biodiesel fuels greater than 20.

If you are requesting a fire code variance, you should know:

1. There is substantial compliance with the provisions of MSFC.
2. The safety of the public and building occupants will not be jeopardized.
3. Undue hardship will result to the requesting party unless the variance is granted.

Biodiesel dispensing and Minnesota State Fire Code (MSFC)

MSFC currently requires that all dispensing equipment be listed by a National Recognized Testing Laboratory (NRTL) for use with the appropriate fuel being dispensed. The Occupational Safety and Health Administration (OSHA) recognizes



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private testing organizations to ensure that construction and electrical standards are met. The listed equipment must be a complete system for dispensing biodiesel fuels greater than 20, not as individual components.

Variance procedure

Upon application, the State Fire Marshal (SFM) may grant variances from the minimum requirements specified in MSFC if there is substantial compliance with the provisions of the code, the safety of the public and occupants of such building will not be jeopardized, and undue hardship will result to the applicant unless such variance is granted.

The following steps will outline the timeline and required submittal documents for the variance request.

Pre-application checklist

- Identify local fire department
- Identify governing body of fire department (city, township, joint powers agreement)
- Inquire with governing body on variance procedure
 - If no process is established, variance must be heard by governing body
- Gather supplemental information (see below)
 - Manufacturer specifications for dispensing equipment
 - Manufacturer specifications for other equipment
 - Manufacturer statements of compatibility
 - Any engineering compatibility testing or compliance documentation



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Variance application process

Step 1:	Submit required documentation to local Authority Having Jurisdiction (AHJ) such as fire chief, fire marshal or fire inspector. • Properly filed application • Supplemental information (below)
Step 2:	The local governing body may review the request for the variance. When approved, applicants should follow direction of the AHJ granting approval. Alternatively, the local AHJ may refer the matter to SFM.
Step 3:	Findings and determination: • Written determination from AHJ

If application is denied by AHJ:

Step 1:	Submit required documentation to State Fire Marshal division • Properly filed application • Supplemental information (below) • Documentation of local AHJ decision
Step 2:	Application review: • State Fire Marshal staff confirms hearing date and notifies applicant
Step 3:	Review board hearing and decision: • Virtual hearing with applicant representative encouraged to attend
Step 4:	Findings and determination: • Written determination from SFM



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Supplemental information

Site layout	Include a site layout plan, outlining the location of tanks and fuel pumping operations on property: • Spill protection measures • Vehicle impact protection measures • Setbacks buildings and property lines
Fuel specifications	Provide specific physical and chemical properties: • Safety data sheet if available • Flashpoint • Mixtures/concentrations
Tank specifications	Provide manufacturer tank specifications and size
Dispensing equipment specifications	Provide manufacturer dispensing equipment specifications, including statements of compatibility with biodiesel fuels greater than 20

Contact SFM

SFM fire code team: fire.code@state.mn.us



