



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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Lieutenant Governor

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Secretary

KENNETH L. KIMMELL
Commissioner

October 21, 2011

Edmund M. Walker, Director
Massachusetts Firefighting Academy
1 State Road, P.O. Box 1025
Stow, MA 01775

RE: Statewide
Ethanol Fire Fighting
Air Quality Control Section 7.07(3)(a),
APPROVAL to Burn for Fire Training

Dear Mr. Walker:

The Department of Environmental Protection (MassDEP), Bureau of Waste Prevention, has completed its review of your request to conduct fire training on the methods to fight flammable liquids. The purpose of each burn is to train firefighters on how to recognize and correctly apply fire fighting foam to an ethanol spill in order to protect public safety and critical infrastructure while minimizing damage to environment. This training will be conducted statewide during calendar years 2011 and 2012.

MassDEP has determined that this is a valid application of 7.07(3)(a) of the "Air Pollution Control Regulations" and hereby **APPROVES** this request. This approval incorporates all documentation in the request as well as the conditions outlined below:

Description of the Pilot Project for E-95 Live Burn Training

The Department of Fire Services (DFS), under funding through the State Emergency Response Commission, is developing training methodologies to train fire fighters in the methods and tactics of fighting polar flammable liquids fires, principally focused on Ethanol (E-95) as a fuel additive and/or fuel. To meet the broad reach of training necessary, the Massachusetts Fire Fighting Academy is seeking to provide local, on-site training using a mobile training prop.

This training is a part of a Tri-State Large Ethanol Spill response initiative. The main portion of the firefighting training will roll out in October 2011, after the pilot burn, to meet the Homeland Security Exercise and Evaluation Process (HSEEP) Field Exercise (FX) schedule. The goal is to be in the field doing this training in calendar years 2011 and 2012 for all the emergency service providers along the rail lines and barges (major transportation sources). Training will be scheduled within each of the 15 fire districts.

The ethanol, live burn, foam application training will take place in a 36" x 48" x 6" stainless steel pan with a back splash panel of the same square dimensions (36" x48"). The pan will be filled to a 3inch level which requires approximately 20-25 gallons of ethanol. The contents will be ignited several times to demonstrate and allow students to practice alcohol resistant foam applications by various prescribed methods. DFS is planning to burn a 95% ethanol 5% gasoline mixture. A containment berm will be provided and placed under the burn pan in the event of overflow or splash.

Alcohol Resistant (AR) Aqueous Film-Forming Foam (AFFF) will be applied using a standard five gallon water can extinguisher with a 3% foam mixture and with an aerator nozzle to generate foam. Burn time for each training evolution (i.e. an ignite/extinguish sequence) is anticipated to be no more than five minutes prior to extinguishment. There will be approximately six (6) burns per class or training session. The actual field burn portion of the class is expected to be one 30 minute component of the half day training session.

Upon conclusion, any unburned product and residual firefighting foam shall be managed in accordance with 310 CMR 30.0000 and with Policy #BWP-89-02. This policy can be located on the MassDEP website at: <http://www.mass.gov/dep/recycle/laws/hwcontra.htm> and describes the notification that DFS must provide to MassDEP for any self-transport of hazardous waste.

Conditions of Approval for Ethanol Burn Training

MassDEP grants an approval to conduct training burns for the ethanol fire training throughout Massachusetts with the following provisions:

1. DFS shall provide MassDEP a written schedule for the training sessions, listing the approximate dates and locations for each scheduled training in the 15 fire districts. Send the schedule to Nick Child, the Emergency Response Section Chief, in Worcester Regional Office, 627 Main St, Worcester, MA 01608 or to Nick.Child@state.ma.us.
2. A copy of this approval letter and training schedule shall be sent to the local fire department and board of health at least seven (7) days prior to any prescribed burn within their jurisdiction.
3. Oral notification to each appropriate regional Office of the proposed date(s) and location(s) of the pilot training at least three (3) days in advance of the burn event confirming date(s) and time.

Northeast Regional Office
Tom Natario
978-694-3269

Central Regional Office
Michelle Delemarre
508-767-2777

Southeast Regional Office
Chris Tilden
509-946-2823

Western Regional Office
Robbie Baker
413-755-2275

4. DFS personnel shall obtain a written permit from the local fire department not greater than two (2) days prior to the event in accordance with 310 CMR 7.07(3)(g).
5. The weather conditions at the time of burning must provide for good atmospheric ventilation suitable for proper smoke dispersion.
6. The burn(s) shall be conducted between the hours of 9:00AM and 10:00 PM on a day that meteorological conditions allow for optimum dissipation of smoke.
7. The burn(s) shall be conducted without causing a nuisance, health or safety hazard. Should it be determined that a nuisance and/or hazardous condition exists, the fire shall be extinguished immediately.
8. If starters or starting aids are used, prescribed fire industry standard ignition devices / fire starter aids (which shall be smoke minimizing) shall be used.
9. The burn(s) shall be conducted as described above in this conditional approval letter.
10. DFS shall notify the appropriate regional Office of any change(s) and/or deviation(s) from the fire training burn prior to its implementation.
11. Failure to comply with these conditions may result in the revocation of this authorization.

Please feel free to contact Nick Child at (508) 767-2847 should you have any questions.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

James C. Colman
Assistant Commissioner
Bureau of Waste Prevention

Ecc: Albe Simenas, MassDEP Boston
Sarah Weinstein, MassDEP Boston
MassDEP regional Permit Chiefs
Nick Child, ER MassDEP Worcester
David Ladd, DFS, Stow