



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St., S.W.  
Washington, D.C. 20590

JUN 26 2001

Ref. No. 01-0025

Mr. Chris Schimp  
Grayson Hill Farm  
1705 Grayson Rd.  
El Dorado, IL 62930

Dear Mr. Schimp:

This is in response to your letter and subsequent telephone conversations with a member of my staff asking whether you are required to apply for an exemption to transport methane gas as a Division 2.1 under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You state that a pressure vessel is filled with activated carbon which absorbs the methane. You also state that the activated carbon has been determined not to meet the definition for Division 4.2 and that the material will be described as "Natural gas, compressed" UN1971.

Under the Hazardous Materials Regulations (HMR; Parts 100-185), an exemption is not required to transport methane gas containing activated carbon as a Division 2.1 hazardous material when prepared and packaged in conformance with the HMR. Section 173.22 states that it is the shipper's responsibility to properly classify a hazardous material. It is not the function of this Office to confirm findings. However, based on the information provided in your letter, it is the opinion of this Office that methane gas absorbed in activated carbon under pressure is appropriately described as Division 2.1.

A hazardous material described as "Natural gas, compressed," must be packaged in DOT specification cylinders in full conformance accordance with § 173.302. Cargo tank motor



010025

173.22

vehicles and other packagings are not authorized except under the terms of an exemption. You may submit an application for an exemption in accordance with the procedures prescribed in § 107.105.

I hope this information is helpful. Please contact us if you need further assistance.

Sincerely,

*Hattie L. Mitchell*

Hattie L. Mitchell, Chief  
Regulatory Review and Reinvention  
Office of Hazardous Materials Standards

HYDROPONIC PRODUCE  
AQUACULTURE  
METHANE UTILIZATION

MONDAY, JANUARY 22, 2001

# Grayson Hill Farm

McIntyre

\$173.33

Exemption  
Applicability

01-0025

TO: Director of O.H.M.S. U.S. D.O.T. (Edward Mazzullo)

FROM: Chris Schimp (owner of Grayson Hill Farms)

RE: Respectfully request a letter verifying that a Federal exemption is not needed to transport methane gas under 2.1 Division with activated carbon that has been determined not be classified in Division 4.2.

Grayson Hill Farms produces electrical power from coal mine methane gas which is sold on the power grid to local utilities and captures the waste heat from the generators to grow Hydroponic produce along with fish in speciality designed greenhouses. Chris Schimp a Mining Engineer has a lot of experience with methane gas and through this experience has a Patent on a system that can transport methane gas very economically by truck. The State of Illinois has awarded Grayson Hill Farms with a Grant to put this system in operation.

Grayson Hill Farms contracted the scientist from University of Illinois for the carbon selection for the transportation system. The carbon selected is from Waterlink/Barnebey Sutcliffe Corporation and has been determined not to be liable to spontaneous combustion according to IATA Dangerous Goods Regulations and according to the 49 CFR Ch.I, + DOT Research and Special Programs Administration. Please find the enclosed test results.

The transportation system will involve a propane tanker filled with the carbon which will absorb the methane thus increasing the volume of methane that can be transported in the tanker. The pressure will not exceed the rated pressure of the vessel which is 250 psi and meet the necessary safety regulation. The carbon will stay in the tank and will last as long as the system is in operation. The methane will desorb from the carbon when the pressure is released from the tanker during unloading.

A letter verifying that a Federal exemption is not needed is part of the Grant project in putting the transportation system together.

Thank You

Chris Schimp

Dr Ke - 2/6/01  
CAN YOU GIVE ME  
GUIDANCE ON THIS?  
THANKS  
JOAN

~~CLOSED~~

6/19