

**DATES:** This exemption will be effective on September 25, 2010. Petitions to stay must be filed by September 3, 2010. Petitions to reopen must be filed by September 15, 2010.

**ADDRESSES:** Send an original and 10 copies of all pleadings, referring to Docket No. FD 35379, to: Surface Transportation Board, 395 E Street, SW., Washington, DC 20423-0001. In addition, send one copy of pleadings to Louis E. Gitomer, Esq., Law Offices of Louis E. Gitomer, 600 Baltimore Avenue, Suite 301, Towson, MD 21204.

**FOR FURTHER INFORMATION CONTACT:** Eric Davis, (202) 245-0393 [Assistance for the hearing impaired is available through the Federal Information Relay Service (FIRS) at 1-800-877-8339].

**SUPPLEMENTARY INFORMATION:** Additional information is contained in the Board's decision. Board decisions and notices are available on our Web site at <http://www.stb.dot.gov>.

Decided: August 25, 2010.

By the Board, Chairman Elliott, Vice Chairman Mulvey, and Commissioner Nottingham.

**Kulunie L. Cannon,**  
Clearance Clerk.

[FR Doc. 2010-21626 Filed 8-30-10; 8:45 am]

**BILLING CODE 4915-01-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Highway Administration

#### Environmental Impact Statement; Santa Rosa County, FL

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice of intent.

**SUMMARY:** The FHWA is issuing this notice to advise the public that an Environmental Impact Statement (EIS) will be prepared for a proposed highway project in Santa Rosa County, Florida.

**FOR FURTHER INFORMATION CONTACT:** Ms. Cathy Kendall, AICP, Environmental Specialist, Federal Highway Administration, 545 John Knox Road, Suite 200, Tallahassee, Florida 32303, Telephone: (850) 942-9650.

**SUPPLEMENTARY INFORMATION:** The FHWA, in cooperation with the Florida Department of Transportation will prepare an EIS for a proposal to improve SR 87 in Santa Rosa County, Florida. The proposed improvement would

involve the construction of a new roadway connecting SR 87S to SR 87N. The new roadway would vary between five to eleven miles in length. The improvement is considered necessary to provide connectivity for the existing and projected traffic demand, and to provide a more direct corridor for emergency evacuations from the Gulf Coast.

Alternatives under consideration include (1) taking no action; (2) alternative corridors that would provide for a four-lane rural highway with plans to build two-lanes initially to be widened to a four-lane divided rural facility as needed in the future.

Letters describing the proposed action and soliciting comments will be sent to appropriate Federal, State, and local agencies, and to private organizations and citizens who have expressed interest in this proposal. A series of public meetings will be held between February, 2010 and June, 2013. In addition, a public hearing will be held. Public notice will be given of the time and place of the meetings and hearing. The Draft EIS will be made available for public and agency review and comment. An informal scoping meeting was held at the project site on July 29th, 2010. There are no plans to hold a formal scoping meeting. Scoping will be accomplished by use of the Florida Efficient Transportation Decision Making Process and a series of meetings for agencies and the public.

To ensure that the full range of issues related to the proposed action are addressed and all significant issues identified, comments and suggestions are invited from all interested parties. Comments or questions concerning this proposed action and the EIS should be directed to the FHWA at the address provided above.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Research, Planning and Construction. The regulations implementing Executive Order 12372 regarding inter-governmental consultation on Federal programs and activities apply to this program.)

Issued on: August 25, 2010.

**Martin Knopp,**

Division Administrator, FHWA, Federal Administrator, Tallahassee, Florida.

[FR Doc. 2010-21740 Filed 8-30-10; 8:45 am]

**BILLING CODE 4910-22-P**

RailAmerica, in *Fortress Inv. Group, LLC et al.—Exemption for Transaction within a Corporate Family*, Docket No. FD 35123 (STB served Mar. 19, 2008). According to petitioners, to date, RailAmerica has not yet exercised the control of FEC.

## DEPARTMENT OF TRANSPORTATION

### Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2010-0226]

#### Liquefied Natural Gas Facilities: Obtaining Approval of Alternative Vapor-Gas Dispersion Models

**AGENCY:** Pipeline and Hazardous Materials Safety Administration, (PHMSA) DOT.

**ACTION:** Notice; issuance of advisory bulletin.

**SUMMARY:** This advisory bulletin provides guidance on the requirements for obtaining approval of alternative vapor-gas dispersion models under Subpart B of 49 CFR part 193.

**FOR FURTHER INFORMATION CONTACT:** Charles Helm at 405-954-7219 or [charles.helm@dot.gov](mailto:charles.helm@dot.gov).

#### SUPPLEMENTARY INFORMATION:

##### I. Background

The Pipeline and Hazardous Materials Safety Administration (PHMSA) issues federal safety standards for siting liquefied natural gas (LNG) facilities. Those standards require that an operator or governmental authority control the activities around an LNG facility to protect the public from the adverse effects of thermal radiation and flammable vapor-gas dispersion. Certain mathematical models and other parameters must be used to calculate the dimensions of these so-called "exclusion zones."

In the case of vapor-gas dispersion, two different models may be used where appropriate: (1) The DEGADIS Dense Gas Dispersion Model (DEGADIS), an integral model that simulates the downwind dispersion of dense gases in the atmosphere, and (2) FEM3A, a dispersion model that accounts for additional cloud dilution which may be caused by the complex flow patterns induced by tank and dike structures.

The use of alternative vapor-gas dispersion models is also permitted, if those models take into account the same physical factors as the approved models, are validated by experimental test data, and receive the Administrator's approval. Conservatism, field testing, post-testing data evaluation, and correlative analysis are critical to satisfying these conditions.

In addition, PHMSA's federal safety standards incorporate by reference the National Fire Protection Association (NFPA) NFPA 59A: Standard for the Production, Storage, and Handling of Liquefied Natural Gas. That consensus

industry standard is issued by the Technical Committee on Liquefied Natural Gas of the NFPA.

Several years ago, the NFPA 59A Technical Committee tasked the Fire Protection Research Foundation (FPRF), a nonprofit entity that performs research for the NFPA, with developing a tool for evaluating the suitability of LNG vapor-gas dispersion models. The FPRF subsequently contracted with the Health & Safety Laboratory; the research agency of the United Kingdom Health & Safety Executive, to examine the modeling of dispersion of LNG spills on land and develop guidelines to assess those models.

An expert panel, including representatives from Sandia National Laboratories, PHMSA, the Federal Energy Regulatory Commission (FERC), NFPA, the United States Coast Guard, and other stakeholders, assembled to provide guidance and comment on the development of those guidelines. That effort led to the creation of the Model Evaluation Protocol (MEP) as described in *M.J. Iving et al., Evaluating Vapor Dispersion Models for Safety Analysis of LNG Facilities Research Project: Technical Report* (Apr. 2007) (available at <http://www.nfpa.org>) (Original FPRF Report), and supplemented in S. Coldrick et al., *Validation Database for Evaluating Vapor Dispersion Models for Safety Analysis of LNG Facilities: Guide to the LNG Model Validation Database, Version 11.0* (May 2010) (available at <http://www.nfpa.org>) (Supplemental FPRF Report):

The MEP is based on three distinct phases: scientific assessment, model verification and model validation. The scientific assessment is carried out by obtaining detailed information on a model from its current developer using a specifically designed questionnaire and with the aid of other papers, reports and user guides. The scientific assessment examines the various aspects of a model including its physical, mathematical and numerical basis, as well as user oriented aspects. \* \* \* The outcome of this scientific assessment is recorded in a MER, along with the outcomes of the verification and validation stages \* \* \*.

[In] [t]he verification stage of the protocol[,] \* \* \* evidence \* \* \* is sought from the model developer and this is then assessed and reported in the MER. The validation stage of the MEP involves applying the model against a database of experimental test cases including both wind tunnel experiments and large-scale field trials. The aim of the validation stage is \* \* \* to quantify the performance of a model by comparison of its predictions with measurements.

Funded by a grant from PHMSA, the National Association of State Fire Marshals (NASFM) then convened a panel of its own experts, and that panel

performed an independent review of the MEP and produced a separate technical report, National Association of State Fire Marshals, *Review of the LNG Vapor Dispersion Model Evaluation Protocol* (Jan. 2009) (NASFM MEP Report); see also National Association of State Fire Marshals, *Review of the LNG Source Term Models for Hazard Analysis: A Review of the State-of-the-Art and an Approach to Model Assessment* (Jun. 2009) (NASFM Source Term Report).

After carefully considering the information provided in the Original FPRF Report, Supplemental FPRF Report, and NASFM MEP Report, PHMSA is issuing further guidance on the standard for obtaining approval of alternative vapor-gas dispersion models, particularly the requirement for validation by experimental test data. That guidance is based on the MEP's three-stage process for evaluating such models, but includes modifications to address the concerns of other stakeholders, including NASFM and FERC.

## II. Advisory Bulletin (ADB-10-07)

To: Owners and Operators of LNG Facilities.

Subject: Liquefied Natural Gas Facilities: Obtaining Approval of Alternative Vapor-Gas Dispersion Models.

Advisory: In seeking the Administrator's approval of an alternative vapor-gas dispersion model, a petitioner may demonstrate that its model has been validated by experimental test data by using the three-stage process described in the MEP. A petitioner may also submit a MER as evidence of its completion of the MEP.

The model developer or an independent body may complete the MER, which should contain certain information about the proposed model, including general information (*Section 1*), information for scientific assessment (*Section 2*), information for user-oriented assessment (*Section 3*), information on verification (*Section 4*), information on validation (*Section 5*), and other administrative details (*Section 6*). The validation portion of the MER should include the validation database described in the Original FPRF Report and Supplemental FPRF Report, with appropriate consideration of the additional guidance provided below.

This guidance relates to some of the concerns raised in the NASFM MEP Report and by other interested parties, including FERC, and is organized to correspond with the affected sections of the MER. These suggested practices may require modification in individual

cases, and the proponent of an alternative model may establish its suitability by any other appropriate means, subject to the Administrator's approval.

1. *Section 2.1.1.2 Source Geometry Handled by the Dispersion Model* should describe and clearly state the limitations of the model related to its ability to handle different source terms, including:

a. Ability to handle the dispersion of vapors from a transient (*i.e.*, flowing) and irregular liquid pool geometries, including vaporization from geometries with high aspect ratios (*i.e.*, long trenches) in the cross-wind and parallel-wind direction.

b. Ability to handle the dispersion of vapors from a vaporizing regular liquid pool geometry (circular, squared) source term.

c. Ability to handle the simultaneous dispersion of vapors from a combination (*i.e.*, multiple sources) of the phenomena above.

d. Use of any sub-models to simulate the phenomena above.

2. *Section 2.2.2.1 Wind Field* should describe and clearly state the limitations of the model related to its ability to model low wind speeds (*i.e.*, less than 2m/s) and its ability to model fluctuating wind speeds.

3. *Section 2.2.2.3 Stratification* should describe and clearly state the limitations of the model related to its ability to model atmospheric stabilities (*e.g.*, F stability). The description should indicate if temperature and/or turbulence profiles may be invoked at the upwind boundary or if forcing functions may be invoked.

4. *Section 2.2.3.1 Terrain Types Available and Section 2.3.12 Complex Effects: Terrain* should describe and clearly state the limitations of the model related to its ability to model sloping terrain, including any special methods to model (*e.g.*, gravity vector adjustment, sub-model for adjusting Cartesian grids, *etc.*). Unique modeling characteristics that may alter the terrain should be described (*e.g.*, Cartesian Grid, Porosity-Distributed Resistance methodology, *etc.*).

5. *Section 2.2.4.1 Obstacle Types Available and Section 2.3.13 Complex Effects: Obstacles* should describe and clearly state the limitation of the model related to its ability to model complex geometries, including the limitations based on the grid or mesh options available (reference can be made to *Section 2.4.3.1 Computational Mesh*). Unique modeling characteristics that may alter the obstructions should be described (*e.g.*, Cartesian Grid, Porosity-

Distributed Resistance methodology, etc).

6. Section 2.3.1.5 *Turbulence Modeling* should describe and clearly state the limitation of the model related to its ability to model turbulence, including the turbulence sub-models available (e.g., Algebraic, Favre- or Reynolds-Averaged Navier Stokes, Reynolds Stress Transport, Spalart-Allmaras One-Equation, K-Epsilon Two Equation, K-Omega Shear Stress Transport, Large Eddy Simulation, Detached Eddy Simulation, etc).

7. Section 2.3.1.7 *Boundary Conditions* should describe and clearly state the limitation of the model related to its ability to model certain boundary conditions, including the boundary condition specifications available (e.g., wall functions, full-slip, no-slip, partial-slip, inlet/outlet boundaries, injection boundary, periodic boundary, mirror/symmetry boundary, etc).

8. Section 2.3.11 *Complex Effects: Aerosols* should describe and clearly state the limitations of the model related to its ability to model different source terms, including:

- a. Ability to handle the dispersion of vapors from a flashing source term.
- b. Ability to handle the dispersion of vaporized aerosol formed from mechanical fragmentation or other means of a high pressure release.
- c. Ability to handle the dispersion of vaporization from aerosol that has settled out (i.e. rainout).

9. Section 2.4.3.1 *Computational Mesh* should clearly state all features of the computational mesh (e.g., Automatic, Manual, Structured, Unstructured, Cartesian, Curvilinear, Body-fitted, H-Type, C-Type, O-Type, Triangle/Tetrahedral, Quadrilateral/Hexahedral, Adaptive, Multi-Block, etc).

10. Section 2.4.3.2 *Discretization Methods* should describe and clearly state the limitation of the model related to its numerical solution methodologies, including a description of the temporal discretization methodologies available (e.g., Implicit, Explicit, Multi-Stage Schemes, Order of Runge-Kutta, MUSCL, QUICK, Courant-Friedrichs-Lewy limitations, etc) and description of the spatial discretization methodologies available (e.g., Central Schemes, Upwind Schemes, etc).

11. Section 2.6 *Sources of Model Uncertainty* should describe and clearly state all known uncertainties described in previous sections and any uncertainties due to any other physical parameters and assumptions inherently built into the model.

12. Section 2.6.4 *Sensitivity to Input* should include a parametric analysis. Alternatively, a sensitivity analysis of

the validation study may be referenced, as described below in Section 6.2 *Evaluation Against MEP Quantitative Assessment Criteria*.

13. Section 2.7 *Limits of Applicability* should summarize the limitations of the model described in previous sections and any other limitations inherently built into the model.

14. Section 6.2 *Evaluation Against MEP Quantitative Assessment Criteria* should provide the following as part of the submitted validation phase:

a. An uncertainty analysis that accounts for model uncertainty due to uncertainty in the assumption of input parameters specified by the user.<sup>1</sup> The model uncertainty analyses should address the following:

i. Analysis of source term(s). Certain models have built-in source models that are able to calculate the flashing, mechanical fragmentation and subsequent aerosol formation and rainout, resultant liquid trajectory, flow and vaporization. It is recommended that the built-in models be used, where appropriate and applicable, as those are the most likely to be used during hazard analyses. For models without built-in source models, it is recommended that appropriate source term model(s)<sup>2</sup> be used that provides an accurate depiction of the experiment that can be inputted into the dispersion model as it should generally produce better fidelity. Alternatively, simplified source term inputs may be used with justification provided for the selection of pool diameter(s), vaporization rate(s), and other specified sources along with a sensitivity analysis of the vaporization rate and resultant pool diameter(s). A source term based on an instantaneously formed pool with a vaporization rate and pool size equal to the discharge rate (mass balance) based on empirically selected vaporization rates of 0.085kg/m<sup>2</sup>/sec and 0.167kg/m<sup>2</sup>/sec should be included in the sensitivity analysis.

ii. Analysis of boundary conditions, including wall conditions, slip conditions, surface roughness, thermal properties, and any other parameters specified for the boundaries that may otherwise have a significant influence on the model results. The analysis should demonstrate the impact of the boundary conditions on the analysis. This may be accomplished by demonstrating

<sup>1</sup> Model uncertainty due to the uncertainty of the physical parameters and assumptions inherently built into the model is not required to be quantified, although these limitations should clearly be stated in the scientific assessment.

<sup>2</sup> Source term models may be supplemented with an evaluation in accordance with Model Assessment Protocol (MAP) published by the FPRF in Ivings, et al., *LNG Source Term Models for Hazard Analysis: A Review of the State-of-the-Art and an Approach to Model Assessment* (Mar. 2009) (available at <http://www.nfpa.org>) or equivalent Health and Safety Executive report, *LNG Source Term Models for Hazard Analysis: A Review of the State-of-the-Art and an Approach to Model Assessment*, RR789, 2010 (available at <http://www.hse.gov.uk/research/rrhtm/rr789.htm>).

that the boundary conditions do not have a significant influence on the analysis (i.e., boundaries are sufficiently far away not to influence the flow field of the vapor cloud) and/or through a sensitivity analysis of the boundary conditions. For boundary conditions associated with the ground, a sensitivity analysis, including any bounds (e.g., a no-slip v. free-slip) of the boundary conditions should be evaluated.

iii. Analysis of wind profile. Certain models are only able to provide steady-state wind profiles and/or direction. Other models are able to input/calculate transient, fluctuating, or periodic (e.g., sinusoidal) wind profiles and directions. It is recommended that the most accurate depiction of the wind field be used, as it should provide better fidelity. The wind field throughout the domain should be fully established before the source term initializes. Surface roughness sensitivity analysis should be included based on user guide documentation or other recommended and generally accepted good engineering practices that represent surface roughness for the area.

iv. Analysis of sub-models. Certain models contain multiple sub-models (e.g., turbulence models) that may be selected by the user. It is recommended that the most appropriate and applicable sub-models be used, as it should provide better fidelity. Technical justification for the selected sub-models should be provided. If multiple sub-models may be appropriate and applicable, sensitivity analysis should be used for a range of sub-models. Any specification in associated coefficients may also be subject to sensitivity analysis, where warranted.

v. Analysis of temporal discretization/averaging. Certain models may specify different time-averages. Time averages should reflect the time averaged data of the experimental measurements or less. Where time averages cannot be specified to reflect the time-averaged data of the experimental measurements, sensitivity analyses or corrections should be provided.

vi. Analysis of spatial discretization/averaging and grid resolution. An analysis should evaluate the effect of any spatial averaging by the model. For Computational Fluid Dynamics (CFD) models, a grid sensitivity analysis should be provided that demonstrates grid independence or convergence to a grid independent result (e.g., Richardson extrapolation). If overly cost-prohibitive, it may be acceptable to selectively refine grids in the areas of principal interest only based on user guide documentation or other recommended and generally accepted good engineering practices.

vii. Analysis of geometrical representation for sloped and obstructed cases. Certain models may not be able to model sloped and obstructed flow fields. Others may be limited in the representation of slopes (e.g., change in gravity vector), or in the representation of complex shapes or curvatures by simpler geometries (e.g., to fit a Cartesian grid). The effect of these simplifications should be discussed or evaluated.

b. An uncertainty analysis that accounts for model uncertainty due to

uncertainty in the output used for evaluation. The analyses should address the following:

i. Analysis of spatial output. Certain models may be limited in the output of the cross wind concentration profile (e.g., Gaussian concentration profiles in the cross-wind direction). The maximum arc wise concentration should be based on the location of the experimental sensor data that produced the maximum arc wise concentration relative to the cloud centerline. The centerline concentration of the model may not necessarily be representative of the maximum concentration measurement location. Any interpolations and extrapolations used to determine concentrations should be documented,

evaluated and discussed. If a model cannot represent the actual location of the sensor relative to the centerline, the effect of these simplifications should be discussed or evaluated.

ii. Analysis of temporal output. Certain models may be limited in the temporal resolution that can be outputted. Any interpolations and extrapolations used to determine concentrations should be documented, evaluated and discussed. If desired, transient data of the model and experimental data may be provided to supplement the maximum arc wise values to allow for more detailed comparisons with the experimental data, including the evaluation of discrepancies due to spurious experimental or model results.

c. An uncertainty analysis that accounts for experimental uncertainty due to uncertainty in the sensor measurement of gas concentration,<sup>3</sup> where known. Other sources of uncertainty may also be included.

d. Graphical depictions of the predicted and measured gas concentration values for each experiment with indication of the experimental and model uncertainty determined from the analyses described above. Vertical error bars should be used to represent the uncertainty.

e. Calculation of the specific performance measures (SPMs) below in addition to those specified in the MEP:

Name	Specific Performance Measure	Advantage
Concentration Safety Factor	$CSF = \left\langle \frac{C_p}{C_m} \right\rangle$	Straightforward, easy to understand metric that compares the predicted concentration to the measured concentration.
Concentration Safety Factor to Lower Flammability Limit (LFL)	$CSF_{LFL} = \left\langle \frac{C_p}{LFL} \right\rangle$	Straightforward, easy to understand metric that compares the predicted concentration to the measured LFL at the measured/interpolated distance to the LFL.
Distance Safety Factor to LFL	$DSF_{LFL} = \left\langle \frac{X_{p,LFL}}{X_{m,LFL}} \right\rangle$	Straightforward, easy to understand metric that compares predicted distance to the LFL to the measured/interpolated distance to the LFL.

f. Calculation of SPMs specified in the MEP for each experiment and data point in addition to the average of all experiments.

g. A tabulation of all simulations, including all specified input parameters, calculated outputs.

h. A tabulation of all calculated SPMs.<sup>4</sup>

i. All relevant input and output files used.

Issued in Washington, DC, on August 24, 2010.

**Jeffrey D. Wiese,**

*Associate Administrator for Pipeline Safety.*

[FR Doc. 2010-21588 Filed 8-30-10; 8:45 am]

**BILLING CODE 4910-60-P**

## DEPARTMENT OF TRANSPORTATION

### Surface Transportation Board

[Docket No. EP 670 (Sub-No. 1)]

#### Notice of Rail Energy Transportation Advisory Committee Meeting

**AGENCY:** Surface Transportation Board.

**ACTION:** Notice of Rail Energy Transportation Advisory Committee meeting.

**SUMMARY:** Notice is hereby given of a meeting of the Rail Energy Transportation Advisory Committee (RETAC), pursuant to section 10(a)(2) of the Federal Advisory Committee Act, Public Law 92-463, as amended (5 U.S.C., App. 2).

**DATES:** The meeting will be held on Wednesday, September 15, 2010 at 1:30 p.m. M.D.T.

**ADDRESSES:** The meeting will be held at the offices of Xcel Energy, 1800 Larimer Street, 2nd Floor, Conference Center, Denver, Colorado 80202.

**FOR FURTHER INFORMATION CONTACT:** Scott M. Zimmerman (202) 245-0202. Assistance for the hearing impaired is available through the Federal Information Relay Service (FIRS) at: (800) 877-8339.

**SUPPLEMENTARY INFORMATION:** RETAC arose from a proceeding instituted by the Board, in *Establishment of a Rail Energy Transportation Advisory Committee*, EP 670. RETAC was formed to provide advice and guidance to the Board, and to serve as a forum for discussion of emerging issues regarding the transportation by rail of energy

<sup>3</sup> Experimental uncertainty due to the sampling time, time averaging, spatial/volumetric averaging, cloud meander, and other errors associated with the experiment are not required to be quantified, but

the analysis may benefit from them being evaluated or discussed.

<sup>4</sup> If the model predictions are outside the experimental uncertainty interval or MEP SPMs,

this does not necessarily mean that the model is unacceptable, but may alternatively impact the safety factor associated with the model usage.