



**U.S. Department  
of Transportation**

Federal Railroad  
Administration

1200 New Jersey Avenue, SE  
Washington, DC 20590

**AUG 26 2013**

Mr. Robert Fronczak  
Association of American Railroads  
425 Third Street SW  
Washington, DC 20024

Mr. Thomas Streicher  
American Short Line and Regional Railroad Association  
50 F Street NW  
Suite 7020  
Washington, DC 20001

Mr. Lou Sanders  
American Public Transportation Association  
1666 K Street NW  
Suite 1100  
Washington, DC 20006

Dear Messrs. Fronczak, Streicher, and Sanders:

Recently, a number of railroads, vendors, and other interested parties have requested meetings with Federal Railroad Administration (FRA) staff to discuss potential plans and testing programs related to the use of natural gas (either compressed natural gas (CNG) or liquid natural gas (LNG)) as an alternative fuel source by the railroad industry. FRA is supportive of all efforts to use more efficient, less polluting, and domestically produced fuel in rail operations. However, in order to ensure proper consideration of each party's request, provide adequate time to meet with each party, and arrive at productive outcomes from such meetings, FRA has developed a set of meeting preparation guidelines that each party should follow. Providing the requested information prior to the meeting will help all parties achieve positive results from such efforts.

A number of stakeholders have inquired about FRA's approval of a test program for CNG and LNG use. In accordance with Federal regulations, FRA has authority over vehicles that serve as locomotive tenders. As such, any vehicle that carries natural gas or any other material being used to fuel attending locomotives is subject to FRA's statutory authority under 49 U.S.C. Chapter 207, Locomotives (formerly known as the Locomotive Inspection Act (LIA)), as well as other regulations applicable to locomotives and locomotive tenders.

The regulations permit the use of a locomotive or tender only if the equipment is “in proper condition and safe to operate without unnecessary danger of personal injury.”

Accordingly, railroads and vendors must ensure that locomotives and the equipment serving as locomotive tenders are safe prior to initiating tests. Therefore, FRA’s rail safety regulations must be considered in evaluating the safety of the equipment and its proposed operation, and in determining compliance with the LIA. In addition, although the Hazardous Materials Regulations are not directly applicable to a locomotive or tender and its operations, the safety rationale underlying those regulations must also be considered.

Prior to initiating the testing of new dual-fuel locomotives or tender vehicles, railroads and vendors must conduct a comprehensive safety analysis that must be provided to FRA for approval. This analysis must identify the risks of the operation and any measures designed to mitigate those risks.

Enclosure 1 to this letter lists the information that must be provided to FRA before a face-to-face meeting is conducted. Enclosure 2 to this letter lists the information and documents that must be provided to FRA if a railroad or vendor seeks approval of a proposed test plan. Please disseminate these enclosures and other preparatory materials to your members and other interested parties.

Thank you for your cooperation in this important effort. If you or your members have any questions, please contact Mr. Karl Alexy, Staff Director, Hazardous Materials Division, at (202) 493-6245 or Karl.Alexy@dot.gov.

Sincerely,



Robert C. Lauby  
Acting Associate Administrator for Railroad Safety/Chief Safety Officer

Enclosures

## **Enclosure 1: Information to be submitted to FRA prior to a meeting on the use of compressed natural gas (CNG) or liquid natural gas (LNG) in railroad service**

A railroad or industry vendor meeting with the Federal Railroad Administration (FRA) to present its plan for testing equipment modified for CNG or LNG use as fuel must provide the following items, at a minimum, at least 2 weeks prior to the meeting.

1. Statement of the objective of the meeting and the benefit to the vendor from such a meeting (what is the expected outcome of the meeting?).
2. Clear description of the system to be tested, summary of the overall test plan, goals to be achieved in the test, and the principal elements that will be evaluated.
3. List of the project team members and their respective duties. Include specific statements on whether the team includes representatives from labor unions. If not, please explain why.
4. Details of the project plan for the tests. This should include, but not be limited to, the following items:
  - a. Test plan.
  - b. Schedule and milestones.
  - c. Location of tests.
  - d. Coordination with other stakeholders (vendors, subcontractors, emergency response institutions, etc.).
  - e. Alternative approaches, if any.
  - f. Physical layout, operational descriptions, flow diagrams, etc.
  - g. Equipment design information (marked as confidential, proprietary, not for distribution).
5. Evaluations of personnel and public safety issues during both the test phase and the operational phase.
6. Types of data that will be collected, including an explanation of why and how these may be used in the design of the commercial operations.
7. Issues that can be resolved by the railroad or vendor, and those which are external (and uncontrollable).
8. List of all regulations directly or indirectly applicable, indicating how compliance with the regulations will be achieved. Prepare a list of items for which a waiver from the requirements of the Federal regulations will be required for the purpose of testing.
9. Request for waiver from the requirements of the applicable Federal regulations for execution of the test plan, if compliance is not achievable.
10. List of potential benefits from the proposed plan to the industry and the public.

11. Set of specific questions that require a response from FRA.

Note: If the information is considered proprietary or confidential, then confidential treatment must be requested and justified, in accordance with Title 49 Code of Federal Regulations Section 209.11, *Request for confidential treatment*. Further information on confidential treatment of submittals is available upon request.

**Enclosure 2: Information to be submitted for FRA approval of a plan to test the use of compressed natural gas (CNG) or liquid natural gas (LNG) in railroad service**

A railroad or industry vendor requesting approval to test equipment modified for CNG or LNG use as a fuel in the rail industry must provide the following information and data to the Federal Railroad Administration (FRA).

1. All items identified in Enclosure 1 when a meeting with FRA is requested.
2. Detailed structural analysis documentation and any relevant test data to support the safe operation and crashworthiness of the equipment and fuel storage elements (note: additional analysis or validation tests may be required by FRA).
3. Procedures for equipment maintenance and testing.
4. Risk analyses addressing, at a minimum, the following items, where applicable:
  - a. Fueling operations.
  - b. Leak detection and response.
  - c. Locomotive and tender separation (protection of crew).
  - d. Survivability of tender, appurtenances, and connections in rail environment.
    - Crashworthiness (in such scenarios as derailment, collision, sideswipe, etc.)
    - Fatigue life
    - Excessive in-train forces
    - Fuel tank penetration protection
5. Details of communication plans with employees, first responders, and public organizations.
6. Other relevant data or information that will expedite processing an approval of the proposed test plan and application for a waiver.

Note: If the information is considered proprietary or confidential, then confidential treatment must be requested and justified, in accordance with Title 49 Code of Federal Regulations Section 209.11, *Request for confidential treatment*. Further information on confidential treatment of submittals is available upon request.