

## NGV Incident Investigation Questionnaire

**Instructions:** this form is provided as a guide to support the efficient collection of pertinent information related to any incident involving a vehicle equipped with a liquefied natural gas (LNG) fuel system. Please complete as much of the form as possible based on your familiarity with LNG fuel systems and technology. This form can be submitted via any of the contact methods listed at the end of this form with as much--or as little--information as you are able to provide.

**Notes:** (1) For vehicles equipped with a CNG fuel system, refer to the CNG-specific form.  
(2) All user-entry fields in this form are reserved for providing detailed evidence only. Users without knowledge or experience relative to any item on this form should not provide conjecture, and should instead skip to the next questionnaire item or provide photographic documentation in lieu of detailed comments.

On behalf of NGVAmerica staff, its members, and the entire NGV community, your support of this effort is greatly appreciated. Thank you for the critical role that you play in this investigative process.

### Date & Time of Incident

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### Location of Incident

(e.g. address, city, state, place of business, etc.)

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### Vehicle Info & System Info

Year, make, and model of vehicle:

VIN: \_\_\_\_\_

Make of Body: \_\_\_\_\_

Commercial or private vehicle: \_\_\_\_\_

If commercial, identify company name: \_\_\_\_\_

Other hybrid vehicle system(s): \_\_\_\_\_

Make and year of LNG fuel system: \_\_\_\_\_

Name of system Integrator/installer: \_\_\_\_\_

Serial # or Traceability # of system: \_\_\_\_\_

Location of system: \_\_\_\_\_

Manufacturer of LNG container: \_\_\_\_\_

Number of containers: \_\_\_\_\_

Manufacturer of methane detectors: \_\_\_\_\_

Number of methane detectors: \_\_\_\_\_

Location of methane detectors: \_\_\_\_\_

### Incident Details

Describe any injuries: \_\_\_\_\_

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Describe property damage: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Brief Incident Description: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Did this incident involve a thermal event (i.e. fire)? \_\_\_\_\_ If no for both of these questions, skip to non-fire specific questions below.  
Did this incident involve a fuel container rupture? \_\_\_\_\_  
If yes, provide number of containers that ruptured and their location(s): \_\_\_\_\_

Describe any evidence of PRD activation, or lack thereof, specific to each PRD on the fuel container(s):  
\_\_\_\_\_

Is ignition source of the thermal event known? \_\_\_\_\_

Describe any evidence of thermal event temperature or intensity (e.g. material condition of steel, aluminum, zinc, plastic, fiberglass): \_\_\_\_\_

Other observations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Non-Fire Specific Questions**

Was the presence of methane detected with an audio or visual alarm from the vehicle's methane detectors?

Does the vehicle have any prior history of methane detector alarms? \_\_\_\_\_  
Are all methane detectors on the vehicle functioning properly? \_\_\_\_\_  
Witness description and/or evidence of gas leakage: \_\_\_\_\_

Was the vehicle refueling at time of incident? \_\_\_\_\_  
What was the fuel level at the time of the incident? \_\_\_\_\_  
What was the fuel tank pressure at the time of the incident? \_\_\_\_\_  
When was the vehicle last filled? \_\_\_\_\_  
When was the last inspection done on the system? \_\_\_\_\_  
What issues were indicated in the inspection? \_\_\_\_\_

Are label(s) on the fuel container(s) visible and legible? \_\_\_\_\_  
If yes, provide the date(s) identified along with the specification (e.g. manufacture date, end-of-life date): \_\_\_\_\_

Was the vehicle involved in a collision? \_\_\_\_\_

If yes, provide a detailed description of the collision and damage: \_\_\_\_\_  
\_\_\_\_\_

Does the vehicle have any historical incident reports associated with it? \_\_\_\_\_  
If yes, provide brief description of each: \_\_\_\_\_  
\_\_\_\_\_

What operational issues or observations existed with the vehicle prior to the incident (e.g. range reduction, rough running, unusual lack of power, methane alarm, audible or visible leaks)? \_\_\_\_\_

Was the vehicle indoors when the incident occurred? \_\_\_\_\_  
If yes, how long had it been indoors? \_\_\_\_\_  
Was a heat source present in the building, and if so what type? \_\_\_\_\_

Is the building certified to permit LNG vehicle operation or parking? \_\_\_\_\_  
What specific training has the driver and relevant service/maintenance personnel received for operating, inspecting, or working on LNG vehicles? \_\_\_\_\_

What was the ambient temperature at time of incident? \_\_\_\_\_  
What were the events preceding the incident? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Were all the container valves open? \_\_\_\_\_  
If no, which container valves were closed? \_\_\_\_\_

Is there any fuel or pressure remaining in the system? \_\_\_\_\_  
If yes, what is the remaining fuel level and pressure? \_\_\_\_\_  
Was there any recent repair or maintenance work performed? \_\_\_\_\_  
If yes, describe the work that was performed and obtain work order documentation from the service provider: \_\_\_\_\_  
\_\_\_\_\_

If incident involves PRD malfunction, is there any evidence of moisture in the vent line(s) or other contributing factors: \_\_\_\_\_

List any other incident details or contributing factors here: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Personnel On Scene**

Fire Department: \_\_\_\_\_  
Primary contact for incident report follow up: \_\_\_\_\_  
Contact information: \_\_\_\_\_  
\_\_\_\_\_

Police Department: \_\_\_\_\_  
Primary contact for incident report follow up: \_\_\_\_\_  
Contact information: \_\_\_\_\_  
\_\_\_\_\_

Other authorities on scene: \_\_\_\_\_  
Primary contact for follow up: \_\_\_\_\_  
Contact information: \_\_\_\_\_  
\_\_\_\_\_

News media on scene: \_\_\_\_\_  
Link(s) to internet news story(s): \_\_\_\_\_  
\_\_\_\_\_

Incident Witnesses and contact information: \_\_\_\_\_  
\_\_\_\_\_

**Attachments**

Try to obtain the following as supporting documentation of this incident:

1. Incident/fire reports from first responders and/or local authorities
2. Service provider work orders from recent vehicle maintenance or repair
3. Historical vehicle incident reports
4. Photos or videos that provide a full understanding of all involved vehicles, vehicle dataplates, fuel system components, component labels, the surrounding area, occurrence of the incident, thermal event in progress, post-incident damage, events leading up to the incident, other exemplar vehicles nearby that are the same or similar model, age, or usage, etc.

**Incident Investigation Contacts**

Your name and contact info: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Submit this completed form and attachments via one of the following methods:

e-mail  
[psandsted@ngvamerica.org](mailto:psandsted@ngvamerica.org)

fax  
(202) 824-7084

Physical Delivery  
NGVAmerica  
ATTN: Paul Sandsted  
400 N. Capitol St. NW  
STE 450  
Washington, DC 20001