

## 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 compressed natural gas (CNG) fuel system. Please complete as much of the form as possible based on your familiarity with CNG 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 LNG fuel system, refer to the LNG-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 CNG fuel system: \_\_\_\_\_

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

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

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

CNG container type and manufacturer: \_\_\_\_\_

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

PRD manufacturer and type: \_\_\_\_\_

Number of PRDs: \_\_\_\_\_

Location of PRDs: \_\_\_\_\_

### 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 cylinders that ruptured, their location(s), and internal liner material: \_\_\_\_\_

Did all PRDs activate? \_\_\_\_\_  
If no, identify which PRD(s) activated and which one(s) did not: \_\_\_\_\_

Witness description and/or evidence of PRD venting during the thermal event (e.g. number of flumes, direction of flumes): \_\_\_\_\_  
Did a thermal event cause the incident, or was it the result? \_\_\_\_\_

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 vehicle refueling at time of incident? \_\_\_\_\_  
If yes, time-fill or fast-fill refueling? \_\_\_\_\_  
What was the fuel container 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): \_\_\_\_\_  
If no, describe visible material on the exterior of fuel container (e.g. steel, carbon-fiber wrap, fiberglass wrap, aluminum or steel end boss, black or metallic end boss): \_\_\_\_\_

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, smell of gas, 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 CNG vehicle operation or parking? \_\_\_\_\_  
What specific training has the driver and relevant service/maintenance personnel received for operating, inspecting, or working on CNG 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 pressure remaining in the system? \_\_\_\_\_  
If yes, what is the remaining 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 is an unintended PRD activation, is there any evidence of missing vent line closures or moisture in the PRD vent lines? \_\_\_\_\_

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