

Freeport LNG Terminal
Emergency Response Information

What You Need to Know



FREEPORT
LNG

Public Emergency Response Information

The Freeport LNG terminal as well as the LNG tankers that visit the facility were built to meet the most stringent design, construction, operations and maintenance requirements and they feature redundant, nearly fail-safe safety systems. These systems shut down the operations completely when the vessel or the facility is not performing correctly or in the event that certain operations or equipment fail. Freeport LNG is striving for a perfect safety record and has made a serious conceptual, operational and financial commitment to ensure that it succeeds.

However, in the unlikely event that there is an emergency at the terminal, Freeport LNG has prepared this emergency response information booklet that explains what residents, workers and visitors in the area immediately surrounding the terminal should know and do. Keep this booklet in a convenient place for easy reference.

If after reading this brochure you still have questions concerning the information, please call **Freeport LNG's Public Information Officer at 1-800-303-6545.**



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What You Should Know about LNG

What is LNG?

LNG is made up of several hydrocarbon gases but mainly methane. This gas mixture is cooled until it condenses into a liquid form. In this state, LNG is one of the safest forms of energy to transport and store.

What is Freeport LNG?

Freeport LNG is a regasification terminal located on Quintana Island, designed to receive LNG from overseas markets. The terminal facility was built to meet the most stringent design, construction, operations and maintenance requirements and includes extensive safety systems to detect and control potential hazards. Specially designed ships with double hulls protecting the cargo systems from damage or leaks are used in the transportation of LNG. The LNG is transported and stored at atmospheric pressure and at a temperature of minus 260 degrees Fahrenheit. For over 50 years of the existence of the LNG industry, LNG shipping as well as LNG terminals have been free of major incidents, and none have resulted in significant quantities of cargo being released.

Do LNG ships have safety features?

These modern-day transport vessels are designed to be some of the safest ships ever built and have incorporated numerous state-of-the-art safety and design features. Double hulls to protect against leakage are heavily insulated, and some of the most sophisticated radar and global positioning systems have been included in the ships' navigation and guidance systems. These systems are designed to detect hazards and to alert the crew to unsafe sailing conditions. LNG tankers are also designed with extensive gas detection and fire suppression systems that are automatically activated.

What does Freeport LNG do with the LNG?

When LNG ships arrive at the Freeport terminal, the LNG is unloaded into storage tanks on terminal property. These tanks are designed in such a manner as to keep the LNG in liquid form. They are heavily insulated with high-performance insulation, have special alloy steel inner walls and outer walls of concrete. Freeport LNG has the capability to vaporize the liquid LNG back into natural gas and

transport it through a pipeline for use in the marketplace. Due to the U.S. natural gas market conditions characterized by low prices, Freeport LNG currently provides only LNG storage and reexport services to its customers.

How safe is the LNG terminal?

The Freeport LNG terminal was designed with many safety and security features. Multiple gas detectors, infrared fire detectors, closed circuit cameras, stringent security measures and personnel safety training are part of the systems in place for safe operations. The structures and equipment design specifications along with the control systems were rigorously reviewed to ensure operational integrity and prevent equipment failure. LNG does not contain any toxic substances or carcinogens. LNG itself is not explosive and any spills that may occur vaporize quickly. Due to the fact that natural gas is lighter than air, LNG vapors will rise rapidly and dissipate in the atmosphere.

Can LNG explode?

LNG cannot explode like other hydrocarbon products. A lit cigarette or match would not even produce a flame. For LNG to be any concern, three conditions would need to be met:

- LNG would need to vaporize to produce natural gas.
- There must be a very narrowly defined concentration of natural gas vapor in air, between 5 percent and 15 percent by volume to be exact.

- There must be an ignition source present that the natural gas mixture in air encounters. Only if all three conditions are met at the same time, will there be ignition of the natural gas vapor. Even then the result will not be an explosion but a flame moving backwards to the spill point.

How explosive is natural gas vapor?

Natural gas can only be explosive if it is confined in a building or other enclosed space in the ignition range, and a source of ignition is present. If the same concentration of natural gas occurs in the open, the result is a flame and not an explosion.

If an LNG leak were to occur due to a storage tank or LNG tanker failure and the leak was in the ignition range, this condition would only result in the vapors burning and not an explosion because the vapors were not confined in an enclosed space.

Would an LNG spill be detectable?

Design criteria for LNG facilities and LNG tankers provide for detectors to constantly monitor for leaks or spills and to alert facility personnel to these conditions. Low/high temperature sensors, gas detection and flame monitors help to ensure that any abnormal conditions are detected. Unlike residential natural gas, LNG has no odor or color. LNG, when it is released and contacts air, will start to vaporize, mix with moisture in the air and form a visible white cloud.

Can LNG or natural gas vapor spill out and travel along the ground?

LNG absorbs heat quickly when it encounters air or any surface and will vaporize. When this vaporization occurs, the resulting gas becomes lighter than air, rises and does not travel along the ground or accumulate in low places like some other gases. Freeport LNG's two LNG storage tanks are of the full-containment type and are surrounded by an earthen dike. This dike acts as a tertiary containment area capable of holding more than the entire volume of all of the LNG storage tanks combined. This containment

system prevents any release of liquid from spreading beyond the immediate tank area and keeps it within the plant boundary.

Will an LNG spill pollute the ground or waterways?

LNG will not pollute any natural resource such as the ground, ground water, waterways, wetlands, streams or beaches. Since LNG vaporizes quickly and completely dissipates because it is lighter than air and does not contain any pollutants, no pollution from an LNG spill would occur.



Emergency Response



Why do I need to know about the Emergency Response Plan?

In the unlikely event of an emergency at the Freeport LNG terminal, it is important that you know what to do. It is also critical that you cooperate fully with authorities responding to the emergency. Local, state and federal agencies studied and evaluated possible emergency scenarios at the terminal itself and while an LNG ship is in transit to or from it, and the steps and actions to be taken in these situations were included in the Emergency Response Plan for Freeport LNG.

The plan must be in place to assure an immediate response and access by emergency vehicles, and allow for the orderly exit of citizens from the area immediately surrounding the terminal site.

Are there different types of emergencies?

Emergencies at LNG facilities are categorized using strict Department of Transportation (DOT) criteria. Only emergencies that would affect the public

are categorized by the DOT as Uncontrollable Emergencies. The Freeport LNG management has developed an operating philosophy for dealing with emergencies that is based on conservative decision-making by experienced operating staff. If there are any doubts as to whether or not a hazard exists, protective measures will be employed to safeguard terminal personnel and the public.

How will I be notified of an emergency related to the Freeport LNG terminal?

You would be notified of an emergency at the Freeport LNG terminal in one or a combination of the following ways: Depending on the size and area of the incident, public notification through the area-wide Community Awareness Emergency Response (CAER) and 911 systems may be initiated. Freeport LNG will use this primary mechanism to establish proper communications in case a full response is required.

Please make sure you are registered with CAER so that you may review their notifications. Not registered yet? This can easily be done on-line by visiting the Brazosport Industrial CAER website at: www.industrialcaer.com.

Once these calls are made, local responders will act and work with Freeport LNG's initial Incident Commander on scene and could take control of the incident. Freeport LNG will maintain asset support and control of its facility activities while reporting through the designated Incident Commander.

Freeport LNG staff will also assist the mayor, mayor pro tem, other council members and the Quintana Emergency Management Coordinator (EMC) in notifying and organizing appropriate response reactions during the initial phase of an emergency affecting or potentially affecting areas outside the Freeport LNG property boundaries.

Law enforcement agencies, fire departments and other agencies will be used to help broadcast emergency instructions by mobile public address systems, bullhorns and, in some circumstances, by visiting homes.

All these agencies are manned 24/7 and are best suited to respond in the event of an emergency.

Additionally, the city of Quintana has an internal public notification system that is in place for emergency communica-

tions to the community. The mayor and Quintana's emergency coordinator along with the mayor pro tem and other council members will provide immediate public notifications utilizing Quintana's notification system as well as door-to-door contact.

Registration to receive notifications through the Town of Quintana notification system can be done by contacting Quintana City Hall at 979-233-0848.

If there is an emergency, you should always shelter in place first and await instructions from emergency management personnel whether to evacuate.

What local alarms can I hear?

Freeport LNG does have a series of in-plant alarms that are routinely tested and at times they can be heard outside the terminal site. However, these alarms are *not* intended to initiate action by the public. There is a CAER siren centrally located on Quintana Island, which is tested every Monday at 12:10 p.m. Another siren test (marine siren) conducted at this same time is one required by the U.S. Coast Guard, with an amber light located in the Freeport LNG marine terminal area.

These alarms, *if heard at any other time than Monday noon*, are to inform the public of a marine or land-based event in one of several local companies that may possibly affect the public. If you should hear them, please hold in place and immediately contact CAER and Quintana officials, from

whom you will learn whether the alarm pertains to your area and receive further instructions.

Why evacuate area residents?

Most emergencies that could occur at Freeport LNG would not require an evacuation. The decision to evacuate is based on one principle—to take the appropriate action to assure the safety of the public. For the same reason, Freeport LNG emergency planning dictates that for certain types of emergencies, persons not required to be in the area immediately surrounding the terminal should be evacuated to ensure their safety and provide a buffer area around the terminal.

What about schools?

There are no schools nearby the Freeport LNG terminal. If any incident could spread to potentially impact a school, notification would be made by the local authorities.

How would individuals with special needs be evacuated?

Evacuation transportation arrangements for individuals with special needs should be made in advance, to avoid last-minute confusion, by registering with 2-1-1. Those individuals should make their needs known to the community in which they live. If your location or needs change, remember to update your arrangements and notify 2-1-1.

How should I evacuate?

People notified to evacuate from the surrounding communities will gather at one

of the three temporary assembly areas (refer to the map on the inside back cover of this booklet for the location of these assembly points on Quintana Island).

Then, based on instructions received by incident management officers, evacuees will make an orderly exit over their normally used roads, over the Intracoastal Waterway bridge, and then by one of many available roads that lead into the town of Freeport and beyond (refer to an evacuation routes map on page 12 and 13 of this booklet).

Alternative evacuation routes could be reached by waterway from the beach or down one of the waterways that lead away from the Freeport LNG terminal. Incident command officers will be positioned in the temporary assembly areas to assist in the orderly evacuation and to provide additional information on the safest and most expeditious routes.

What should I take with me if told to evacuate?

You never know when you might have to leave your home on short notice. Advance planning is key to emergency response. Take time to prepare a disaster plan for the safety and well-being of your family and your pets. Preparing now will help you respond more quickly in any emergency. Use the checklist in this booklet to help you prepare and have an evacuation kit packed and ready to take with you if told to evacuate.

How do I know if the emergency is over?

Residents who have been required to leave their homes should call the

Freeport Police Department at 979-239-1211 to get the most up-to-date information and to obtain the 'go-ahead' to return to their homes. Freeport LNG will

stay in contact with all local emergency agencies, including the Freeport Police Department.

Quintana Area Emergency Numbers

Freeport Police Department, Fire Department and EMS	979-239-1211
Brazosport Community Awareness & Emergency Response	979-238-CAER (2237)
Brazosport Memorial Hospital, Lake Jackson	979-297-4411
Quintana City Hall	979-233-0848
Brazoria County Sheriff's Office	979-864-2338

Emergency Evacuation Checklist

Emergency Kit

- First Aid Kit
- Toolbox
- Portable radio
- Flashlight
- Extra batteries
- Spare car keys

Transportation

- Maintain your car in good running condition.
- Keep enough gas in your vehicle's tank to get you clear of the area.
- If you have special transportation needs, register with 2-1-1, notify your local emergency response agency or fire department and they will assist you.

Possible Evacuation Essentials

- Medical supplies (prescriptions, other medication, First Aid Kit, etc.)
- Money (cash, checkbook, credit cards and other important personal and financial documents)
- Personal hygiene items (toothbrush, soap, shaving supplies, eye-care supplies, washcloth and towels)
- Clothing (for 2–3 days)
- Childcare and infant supplies (formula, diapers, favorite toys)
- Blankets, sleeping bags, and pillows
- Portable radio and batteries
- Special foods or diet supplies
- Nonperishable food
- Pet supplies, including pet food, medicine required for a pet, leashes or pet carriers
- This booklet with evacuation assembly areas and route maps

Evacuation Routes



Helpful Hints if You Are Told to Evacuate

Don't panic, stay calm. Freeport LNG terminal personnel and emergency response agencies are experienced in responding to and mitigating incidents.

Take only essential items with the time you have. Medications, infant essentials and money/financial documents are examples. Use the Checklist in this pamphlet as a guide for things that you may wish to have packed prior to any order to evacuate. If you are told to evacuate, DO NOT take time to pack these items (other than medically necessary items) after the order is given; preparation prior to being told to evacuate is key.

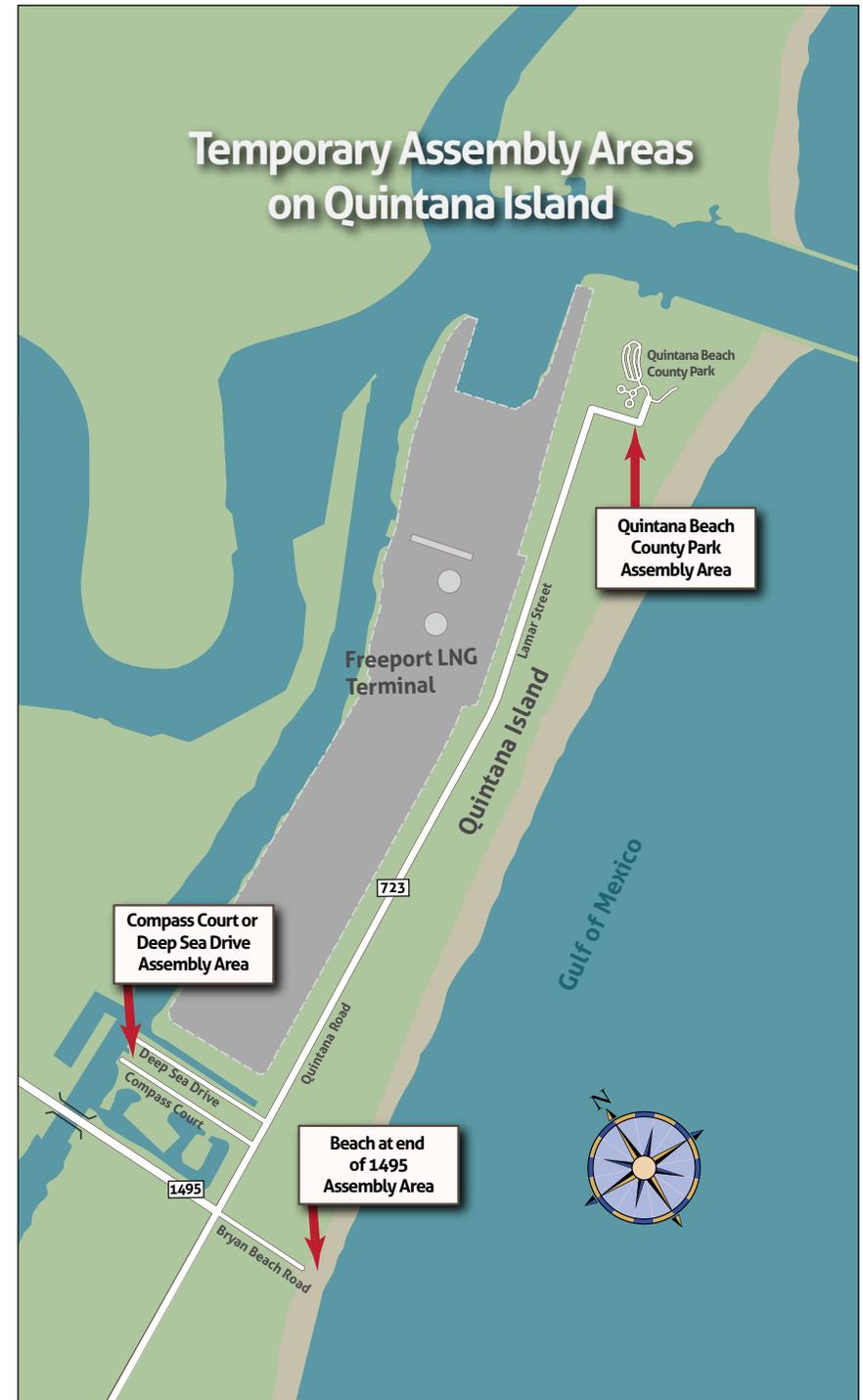
If you must evacuate, remember to take your pets. You should have a plan on where you would take them in the event you are gone for a length of time.

Turn off all lights and appliances in your residence, except for refrigerators and freezers.

Lock all doors and windows in your residence, if you have time.

Use your own transportation. Offer rides to those who may require assistance.

Head for one of the temporary assembly areas and then follow the designated evacuation route. Follow any instructions provided by emergency response personnel.





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