

Classification of incidents

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The following text is a translation of the original Procedure "Clasificación de incidentes" (NT.00036.GN), Version 2, in order that the contents should be easily understood by all Gas Natural Fenosa employees. In the event of any discrepancy in interpretation which may arise from the translation, the contents of the original Spanish version currently in force shall prevail for all relevant purposes.

THE MANAGING DIRECTOR

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Classification of incidents

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Classification of incidents

1. Purpose

The purpose of this document is to establish the criteria and guidelines for classifying incidents of any nature. This classification will be the basis, among other things, for establishing the notification levels according to the real or potential severity and for adopting decisions with respect to the scope and composition of the investigation team.

2. Scope

It is applicable to all companies in which Gas Natural Fenosa holds a majority shareholding and those in which it has operational and/or management control.

3. Reference documents

NG.00002.GN Manual of the Comprehensive Management System for Quality, Environment, Health and Safety.

NT.00035.GN Incident and accident communication and investigation

4. Definitions

Incident: An event that has not caused any personal injury, but under other circumstances, it could have caused personal injury or harm to the environment.¹

Malfunctions that **only** affect the operation of an installation or piece of equipment and that do not have the potential to harm people or the environment will not be considered incidents, but rather breakdowns, and they do not form a part of this procedure.

Categories of Incidents: Very Serious, Serious, Less Serious and Minor. See section 6.2.

5. Responsibilities

Regarding the responsibilities pertaining to handling incidents, the provisions set forth in section 5 of NT.00035.GN apply.

The corporate areas of Prevention and Industrial Safety will be responsible for keeping the various criteria listed in this regulation updated and for ensuring the distribution of the content hereof.

The **Director of Purchasing, Prevention and General Services** will be responsible for keeping the appendices to this procedure updated after receiving approval from the People and Resources Division.

¹ The safety faults that are detected during the various visits to centres/works and that are corrected using other tools (OPS, IDS, works inspections, incident book, etc.) and/or applications will not be considered incidents. The term "incident" is associated with the fact that an incident has occurred.

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6. Development

6.1. Basic principles

Incident classification is developed as a necessary tool for several purposes:

- As a way to reflect on the severity of incidents, especially in cases in which little attention is usually paid and which are processed with minimum actual damage, but their potential severity makes an in-depth analysis necessary.
- As a methodology for prioritising the investigation of events whose relevance must be categorised in terms of their potential or real severity. In this same regard, notification to the various levels of the organisation should be based on this classification of events.
- As the basis for determining the units involved in the investigation process. As the basis for analysing trends to evaluate preventive actions with regard to the variation in the number of incidents of each class that may appear over time.

Incidents will be categorised as Very Serious, Serious, Less Serious and Minor, depending on the following criteria, which take into account, on the one hand, the particular characteristics of the incident (effects according to the hazards or substances involved) and, on the other, the circumstances that are present or could be present in the event, which circumstances will provide an estimate of not only the actual damage but also the potential damage. Every item included has an associated score. All items chosen for the assessment of an incident are added, with the degree of severity or greater seriousness varying as the score increases.

This classification will be made, unless there is more restrictive legislation.

6.1.1 Particular characteristics of the incident

The purpose of this classification is a simple evaluation of the contribution to the severity of an incident, first considering the immediate risks of the materials and substances involved. Said immediate risk will be selected from the list for each incident.

Normally, almost all incidents are processed with a single immediate risk, but in some complex incidents, there may be one or more risk simultaneously (i.e. electric arcing in a transformer and oil spill, both with the capacity to generate subsequent damage), so the system allows choosing one or more. Choosing more than one risk must be exceptional and only when they have clearly not occurred independently. An example is the case of gas incidents: if the main consequence is an explosion, it will be characterised as such, although previously there must have been a leak for gas to be in the atmosphere.

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- **Explosion.** An explosion is the simultaneous release of heat, light and sound energy (and possible other types) in a very short interval of time.
- **Electrical arc.** An electric arc is a disruptive discharge generated by the ionisation of a gaseous medium (such as air) between two surfaces or elements at a different potential. When an electric arc occurs, a flow of electrical charges occurs, and there is a large release of *thermal* energy, which causes a large temperature increase in the vicinity of the arc and *pressure waves*.
- **Gas leak.** The uncontrolled emission of any flammable gas in the gaseous phase. This effect will normally be associated with natural gas and LPG.
- **Overpressure.** It is an increase in pressure over the service pressure of a pipeline, which exceeds the maximum operating pressure.
- **Overvoltage.**
 - Permanent: voltage increases above 7% of the normal voltage, with an undetermined duration, generally due to an unbalance of the phases that is usually caused by breakage of the neutral.
 - Transitory: a relevant increase in voltage, which could be in the kV range and of a very short duration, mainly originating from a lightning strike, but they can also occur due to switching on the network.
- **Fall or breakage of lines.** Electricity distribution or communications lines that have lost their support or fastening or they have lost their physical continuity.
- **Oil spill.** An accidental leak of oil that can affect human health, the soil, plants, bodies of water and underground water.
- **Other hazardous spills or emissions.** Accidental leaks of other substances in liquid or gaseous form, which are harmful, hazardous and/or toxic in nature and can affect human health, the soil, plants and marine or continental waters.
- **Release of other energies.** Of the kinetic or mechanical type, not chemical. This term would cover situations that include, for example, catastrophic failures of rotary elements, non-hazardous leaks of gases at high pressures, uncontrolled leaks of steam, falling equipment or materials suspended in the air, etc.
- **Water entry in the gas or electricity network.** Effect on the distribution network resulting from entry by water into the same.
- **Leak/spillage of other potentially explosive chemical products** This section includes leaks/spillages that involve chemical products whose characteristics make them likely to cause explosions (see the safety data sheet).

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- **Construction element failure.** We consider construction elements to be all elements that constitute structures designed to allow access to, contain or support installations. (Braces, prefabricated items, buildings, doors, utility shafts, etc.)
- **Filtration.** A flow discharged through the body of a dam, which exceeds the defined safety limit.
- **Land slide.** The shifting of a wedge of soil that causes the complete or partial crumbling of the same.
- **Asphyxia.** Suspension of or difficulty with breathing caused by the absence of oxygen.
- **Intoxication.** Poisoning due to the presence of a toxic agent (such as CO).
- **Over-exertion:** physical work that is done above the normal effort that a person could develop in a certain task.
- **Others.** It includes any other immediate risk of the event other than the aforementioned.

6.1.2. Circumstances that are present

The questions will be answered for each event, and the value that approximately represents the reality or estimated potentiality will be chosen. The circumstances attempt to provide an idea of the scope of the event, in both its real aspects and potential aspects.

The following are considered:

- **Fire.** A fire that could follow an incident is a circumstance that continues over time and can therefore cause more damage. Consequently, an incident that takes place with a fire will always be an aggravating circumstance of the potential.
- **Voltage involved**
 - $V \leq 1 \text{ kV}$
 - $1 < V \leq 66 \text{ kV}$
 - $66 < V \leq 132 \text{ kV}$
 - $V > 132 \text{ kV}$
- **Impact on the site.** This refers to the degree of control that has been exercised over an incident occurring at a facility either by human means (such as putting out a fire with an extinguisher) or by technical controls provided for that purpose. The duration of the event, including the time required to detect it and to end it, is a factor to be considered. ⁽¹⁾

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- Event under control.
- Event partially controlled.
- Event not controlled.
- **Impact off the site.** Whenever there are or there could be damages off site of the facility. ⁽¹⁾

This situation will also be assessed whenever it may concern facilities that are not within their own premises, such as electric distribution lines or gas or water pipelines that run on public land.

It will likewise apply when the event takes place at the homes of customers, at the common premises of a group of homeowners and at facilities that provide service to customers and the management thereof is entrusted to any company of Gas Natural Fenosa.
- **Pressure on the natural gas or LGP network**

A gas leak on a distribution network will involve greater risk as the operating pressure increases.

 - MOP > 5 bar
 - $0.5 < \text{MOP} \leq 5$ bar
 - MOP ≤ 0.5 bar
- **Confined space**
- **Possibility of the formation of explosive atmospheres (ATEX)**
- **Recurrence** ⁽¹⁾
 - **Certain.** High probability that it might occur again and in a short period of time.
 - **Probable.** It will occur again, but not as a daily event (there are good reasons to believe it will happen)
 - **Unlikely.** It is not expected to occur again in the immediate future
- **Accumulation of gas in enclosed spaces** (basements, buildings, homes, etc.)
- **Potential number of injured persons** ⁽¹⁾
 - 1
 - 2 – 4
 - > 4
- **Effect on other services of our distribution networks** (electricity and gas)
- **Forestry jobs**
- **Working at height**

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- **Possible explosive atmosphere**
- **Handling of toxic/corrosive chemical products**
- **Jobs that involve earth-moving**
- **Jobs with machinery**
- **Jobs with vehicles**
- **Underwater jobs**
- **Work permits needed**
- **Others.** All situations that cannot be assigned to any of the aforementioned situations. These incidents, depending on the circumstances, will be assessed with justification and score from 0 to 30 points.

⁽¹⁾ The indicated fields must always be filled in

6.2. Classification of incidents

An incident will be classified according to the following scales:

- **Very Serious Incidents.** Incidents with a score exceeding 160 points will be considered major events.
- **Serious Incidents:** when the score is equal to or less than 160 points and equal to or greater than 110 points. An incident will also be classified in this category when the potential number of injured persons is greater than 4.
- **Less Serious Incidents:** when the score is less than 110 points and equal to or greater than 60 points.
- **Minor Incidents:** below 60 points.

Appendix 01 includes the assessments of various effects and circumstances, presented in table form.

For example, an incident that takes place with a gas explosion will have an initial value defined in the table (30). The severity of the explosion will be determined by the circumstances that are present in the incident. Continuing with the example:

- If a fire also occurs: 20 points
- If the network pressure is between 0.5 and 5 bar: 20 points
- If the potential number of injured persons is 1: 20 points
- If recurrence were possible: 15 points
- If it has an impact off the site: 20 points

The final score in this example would be 125 points, corresponding to a Serious category.

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For some circumstances, depending on the value, the event will be directly classified into a category. For example, if the potential number of injured persons exceeds 4, the event will directly be classified at a minimum in the Serious category.

If the results of the score of an incident seem inconsistent with the estimated severity of the event, either more or less, the Prevention and Industrial Safety units of the country will be consulted to establish a single criterion.

7. Data record. Applicable forms

Not applicable

8. List of Appendices

NT.00035.GN-AX.01. Assessment of the effects and circumstances of an event

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Appendix 01. Assessment of the effects and circumstances of an event

EFFECTS OF THE EVENT	VALUE
Electric arc	30
Asphyxia	20
10 Fall lines	20
Oil spill	10
Reservoir embankment slides	15
Emission of toxic gases	20
Entry of water in network	10
Gas leak	20
Explosion	30
Construction element failure	20
Filtration	15
Leak/spillage of other potentially explosive chemical products	20
Intoxication	20
Release of other energies (mechanical, kinetic)	20
Others	5
Other spillages or emissions	10
Line breakage	20
Overpressure	20
Overvoltage	20

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Appendix 01. Assessment of the effects and circumstances of an event

CIRCUMSTANCE	VARIABLE	VALUE
Accumulation of gas in enclosed premises	YES	20
Effect on other services of our networks (electricity and gas)	YES	20
Confined space	YES	30
Work permits needed	YES	20
Impact on the Site	NO CONTROL	30
	PARTIAL CONTROL	20
	CONTROL	10
Impact Off Site	YES	30
Fire	YES	20
Handling of toxic/corrosive chemical products	YES	20
Potential number of injured persons	1	20
	2 - 4	30
	> 4	40
Others	YES	0 - 30
Possible Explosive Atmosphere	YES	20
Natural gas or LPG network pressure	MOP > 5 bar	30
	0.5 < MOP ≤ 5 bar	20
	MOP ≤ 0.5 bar	10
Recurrence	CERTAIN	25
	PROBABLE	20
	UNLIKELY	10
Voltage involved	V > 132 kV	30
	66 kV < V ≤ 132 kV	20
	1 kV < V ≤ 66 kV	15
	V ≤ 1 kV	10
Working at height	YES	20
Forestry jobs	YES	20
Jobs with machinery	YES	15
Jobs that involve earth-moving	YES	15
Underwater jobs	YES	15
Jobs with vehicles	YES	15

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