

# **SOCIAL RESPONSIBILITY BY THE OIL SPILL OR DERIVATIVES DURING ITS TRANSPORT**

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INTEGRATED SYSTEMS

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## SUMMARY

Oil production in the Department of Meta, it has become the first producer at the national level based on the figure obtained, to reach 453,429 thousand<sup>1</sup> barrels per day in December of 2011, this production has remained steady during the course of 2012.

The hydrocarbon volumes that are displayed at the top are mobilized through tankers by road the Department of Meta ways and/or pipelines, due to this, there is the latent risk of oil spills, or derivatives that cause disturbance to the biotic environment and surrounding communities.

Hence the importance of establishing the social responsibility associated with the transport of hydrocarbons or derivatives by the operators and mobilizers of the product.

Key Words: transport, hydrocarbons, spills, hazardous waste, contingency plans.

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### ABSTRACT

Oil production in the Department of Meta, it has become the first producer at the national level based on the figure obtained, to reach 453,429 thousand<sup>2</sup> barrels per day in December of 2011, this production has remained steady during the course of 2012.

The hydrocarbon volumes that are displayed at the top are mobilized through tankers by road the Department of Meta ways and/or pipelines, due to this, there is the latent risk of oil spills, or derivatives that cause disturbance to the biotic environment and surrounding communities.

Hence the importance of establishing the social responsibility associated with the transport of hydrocarbons or derivatives by the operators and mobilizers of the product.

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<sup>1</sup> Ministry of Mines and Energy,  
<http://www.minminas.gov.co/minminas/downloads/UserFiles/File/Produccion%20de%20Crudo%20por%20Departamento%20-%20Diciembre%20de%2>

<sup>2</sup> Ministry of Mines and Energy,  
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## INTRODUCTION

It is a reality that oil is one of the main contributors to the Colombian economic, unfortunately its implicit production brings a series of damages to the environment that can be seen in the long, medium and short-term, for that reason and for sustainable development, it is necessary to seek alternative solutions where the growth of the country are in hand with the environment.

This document presents an overview on the consequences that could occur during the transport of hydrocarbon or derivatives, associated with the spill of this type of product, identifying the legal scope that applies during the contingencies for dangerous goods.

### 1. CONCEPTS

#### STORAGE:

It is the action of the user to temporarily place in the solid waste containers, deposits or disposable returnable containers while they are being processed for utilization, processing, marketing or are presented to the collection service for your treatment or disposal.

#### CONTINGENCY:

Situation of risk arising from human activities or natural phenomena, which can jeopardize the integrity of one or several ecosystems.

#### POLLUTION:

It is the alteration of the environment by substances or forms of energy put there by human activity or of the nature in quantities, concentrations or levels capable of interfering with the well-being and health of the people, attacking the flora and/or fauna, degrade the quality of the environment or affect the resources of the Nation or of individuals.

#### WASTE DISPOSAL:

It is the process of isolating and confining the solid waste in particular not exploitable, in final form, in specially selected locations and designed to prevent contamination, damage or risks to human health and the environment.

#### NOISE EMISSION:

It is the sound pressure generated in any conditions, it transcends the medium environment or to public space.

#### REMOVAL:

Is any of the operations that can lead to the final disposal or to resource recovery, recycling, reclamation to composting, the direct reuse and other uses.

#### EPP:

Elements of Personal Protection

#### PUBLIC SPACE:

Set of public buildings and the architectural and natural elements of the private buildings, designed by its nature, its use or affectation, to the satisfaction of needs that transcend urban collective, therefore, the standards of the individual interests of the inhabitants.

#### PRIVATE SPACE:

It has been to understand not only as the one on which it exerts domain using your property, a group or individual, but as a spatiality that has different characteristics, which is composed in the first place of the individual space, which provides the privacy and whose access is prohibited (negative), limited, as the housing as their closer meaning: the roof under this nomination are included in addition all those specialties that have limited access by the property of the same as are the places of work, offices, factories and in general all those spaces on

which there is a strict control on the part of the interest particular.

**HYDROCARBON:**

It is the biochemist compound composed only of carbon and hydrogen in the molecule.

**HUMAN:**

Biological diversity or biodiversity: is the term that refers to the wide variety of living beings on Earth and the natural patterns that shapes them, result of thousands of millions of years of evolution by natural processes and also, of the growing influence of the activities of the be the biodiversity also includes the variety of ecosystems and the genetic differences within each species that allows the combination of multiple forms of life, and whose mutual interactions and with the rest of the environment, founded the sustenance of life on the planet.

**ENVIRONMENTAL IMPACT:**

Any alteration in the environmental system biotic, abiotic and socio-economic, that is adverse or beneficial, wholly or in part, which can be attributed to the development of the project, work or activity.

**Leachate:**

It is the residual liquid generated by the decomposition of the organic part or biodegradable solid waste under aerobic or anaerobic conditions and/or as a result of the percolation of water through the waste in the process of degradation.

**COMPENSATION MEASURES:**

Are the actions to compensate and reward the communities, regions, localities and the natural environment by the impacts or negative effects generated by a project, work or activity that cannot be prevented, corrected, mitigated, or replaced.

**CORRECTIVE MEASURES:**

Are the actions to recover, restore, or repair the existing environmental conditions environment affected by the project, work or activity.

**MEASURES OF MITIGACIÒN:**

Are actions to minimize the negative impacts of a project, work or activity on the environment.

**ENVIRONMENT:**

Is the set of physical components, chemical, biological and social able to cause direct or indirect effects, in a short or long term, on the living beings and human activities.

**PNC:**

National Plan for contingencies.

**PERMISSION:**

Authorization of the use of temporary parties delimited of renewable natural resources in the public domain.

**CONTINGENCY PLAN:**

Document by which the companies responsible for the processes of operation, transportation and handling of dangerous goods defined mechanisms of attention and containment of emergencies which promote the allocation of natural resources, equipment or human lives by incidents with these goods.

**MANAGEMENT PLAN:**

I mean by management plan to the technical document or to the detailed account of the activities that are going to advance, plans and designs of the infrastructure works and ambience and its facilities, including cages, fencing and similar, supplies, distribution, dumping and water drainage, facilities for conservation and food preparation, facilities for medical treatment, acclimatization, control, files and other works and installations needed for

its operation, among other aspects, which allow you to environmental the authority competent establish the elements of judgment in deciding to fund the approval or denial of the request for operation of a zoo in the jurisdiction of the Department of Meta.

#### SOLID WASTE:

Are all of the debris of organic and inorganic origin, which occur in domestic activities, industrial, commercial, institutional or of services that can be used, reused, and transformed into a new well, with value economic

#### HAZARDOUS WASTE:

It is the residue or waste by its corrosive characteristics, reactive, explosive, toxic, flammable, infectious or radioactive can cause risk or harm to human health and the environment, and is considered a hazardous waste or scrap the dangerous containers, packaging and packaging that have been in contact with them.

## 2. NORMS APPLICABLE

- ▶ Decree 321 of 1999
- ▶ Decree 4741 of 2005
- ▶ Decree 1602 of 2002
- ▶ Decree 1594 of 1984 (Article 96)
- ▶ Decree 2820 of 2010 (Article 41)
- ▶ Decree 3930 of 2010 (Article 35)

## 3. OBJECTIVES

Submit the scope of the social responsibility of companies given the transport and oil spills, or derivatives.

Submit the legal scope that applies during the contingencies for dangerous goods.

Submit the role and scope of the community affected by an oil spill or derivatives.

## 4. PROBLEMATIC

Oil production in the Department of Meta, it has become the first producer at the national level based on the figure obtained, to reach 453,429 thousand barrels per day in December of 2011, this production has remained steady during the course of 2012.

Following the transport of hydrocarbons or derived by overland route and/or pipelines, presents the spill of this type of substances, causing damage to natural resources, such as flora, fauna, bodies of water surrounding the area in which events occurred, among others, it was the same with the communities adjacent to the area are affected.

On many occasions and due to ignorance of the people on the legal framework applicable to contingencies, the responsible companies cannot run actions of social responsibility, thus it is necessary to report on the legal tools which can be applied and the entities which can go, as well as the responsibility of the companies involved in the event.

It should be noted that a single drop of oil converts 25 liters of water unfit for human consumption.

## 5. MATERIALS AND METHODS

The information presented part of a control and rigorous monitoring carried out at 100% of the contingencies for oil spills, or derivatives presented in the Department of Meta, and that generated allocation to the natural resources, in the last 4

years, the above within the functions inherent to the unit group of hydrocarbons soil and subsoil of CORMACARENA (Environmental Authority in the Department of Meta).

Made of field data and the information collected is from a primary source and secondary.

There will also be control and monitoring to areas affected by the contingencies evaluating its evolution and variation from the time of the event until your recovery to the same conditions which was prior the event.

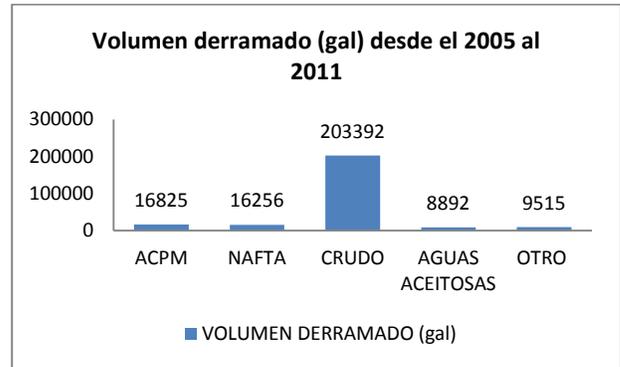
Also it has been carried out the accompaniment to the affected community in the different contingencies, in conjunction with the relevant entities for this.

The foregoing done over the last 4 years (2008-2011), within the existing legal framework.

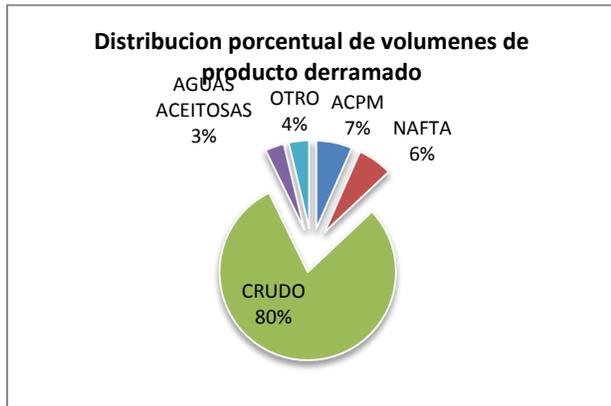
It should be noted that to date it is continued in this process.

oil-crude, which is consistent with the production and mobilization majority of products by the mesh of the road goal, since the naphtha is used as a diluent oil pumping to achieve by pipeline and therefore its transport is less compared to oil.

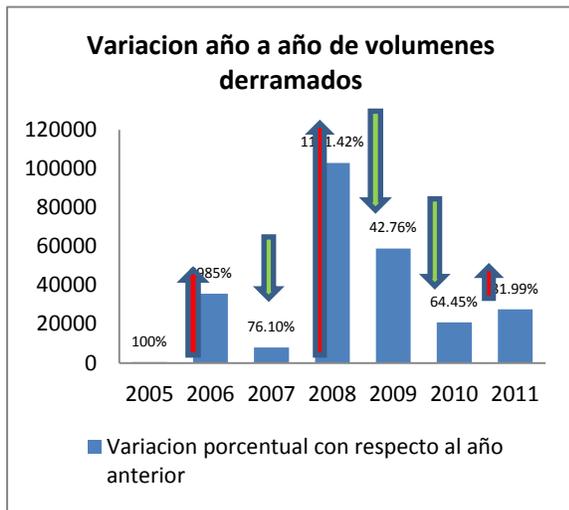
However, the volume of spilled naphtha is overtaken by the ACPM, which is due to the fact that this is a light weight product, which due to their physico-chemical properties flows with greater ease than oil or naphtha, because these vary depending on the degree of API.



**6. RESULTS**



In the graph above shows that 80% of the volume spilled in the Department of Meta corresponds to



water, environmental awareness-raising campaigns, environmental promoters, reformation areas, except peace and of the community action board that was affected, among others)



Compensation Measure (reforestation)



Because of the contingencies for oil spill the Environmental Authority of the Department of Meta, you must assess the environmental impact and to the communities, these assessments are generated measures such as:

- Requirements in Relation to contingency (livelihood of the correct disposal of solid waste generated as a result of the contingency, accompaniment with the community in the recovery of their conditions of life on the contingency, collecting documentation relating to the topic, among others)
- Having place to do this, the start of punishment and investigative processes.
- Environmental compensation measures (reforestations, cleanings of bodies of

Flora affected



Awareness Campaign



Environmental Promoters

Environmental Promoters



Pollution by oil spill

- Other applicable.

## 7. DISCUSSION

It is concluded that although the production of the Department of Meta has increased each year, due to the strict control and monitoring that has exercised CORMACARENA to the contingencies and to the implementation of contingency plans, control points and equipment for the attention of oil spills or derivatives, for part of the company owning the product and the conveyor (by request of CORMACARENA), as well as the have involved the community of its role as poll watchers at field, the volume in gallons spilled has decreased from 2008 to 2011 in a 73.14 %.

Due to the above it is necessary to continue and strengthen the dissemination of information to the community on the scope of the social responsibility of companies given the transport and oil spills, or derivatives, as well as the role and scope of the community affected by an oil spill or derivatives.

Well same companies producing hydrocarbon and the conveyor must strengthen their corporate social responsibility programs, because these are limited to the requirements made by the competent bodies.

However, although the previous result is sample of the constant effort that performs CORMACARENA in exercising control and technical monitoring to 100% of the contingencies that affect natural resources that are presented in the Department of Meta, taking and requiring the measures of prevention, mitigation, correction or compensation to you place, as well as the beginning of research processes, the community still retains the perception of:

- Ineffectiveness of the control and follow-up work done in the different cases by

hydrocarbon spill or derived on the part of the relevant entities.

- The hydrocarbon sector companies comply with environmental regulations in force.
- The institutional image of CORMACARENA loses positioning before the community.

In view of the foregoing should continue a strict control and monitoring for the contingencies oil spills, or derivatives in order to force compliance with the current legal framework, the implementation of the compensation for environmental and social type and change the perception of the community.

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