

Abridged Environmental Reporting Process

How Total Organizes Its Environmental Reporting

“In matters of health, safety, environment and quality, Total will adopt a constructive attitude based on open dialogue with outside parties.”

Article 9, Health Safety Environment Quality Charter

Environmental Performance Reporting Objectives

Total units have performed environmental reporting for a number of years.

The annual reporting process must produce reliable data for regular internal tracking of Total’s environmental performance and also identify trends in order to monitor the achievement of the Group’s objectives.

Certain indicators shared by all businesses are published in our annual *Environment and Society Report* (formerly the *CSR Report*). They provide rating agencies with quantitative responses for their surveys and produce reliable data that can be used to compare Total’s performance with the other main oil industry companies.

Improved Reporting

In 2003, Total undertook to improve the quality of its environmental reporting and standardize it across businesses, in terms both of the quality of the resultant data and the sufficiency of the sites taking part. The objectives were to publish representative figures yearly and to have them audited on an annual basis by an outside organization.

Initiatives were undertaken at each aggregation level—corporate, business and site—to improve not only the process, but also indicator relevance, the completeness of the scope, and the resources and tools used.

In late 2004, our Statutory Auditors’ Environment Department was asked to conduct a certification trial run, as part of a voluntary process designed to obtain a moderate level of assurance regarding a representative sample of around 20% of the data and confirm that there was no material bias in the aggregated data.

At the same time, a database of all sites concerned by reporting—Total-operated sites and sites in which Total owns an interest—was created.

The first real audit of environmental reporting data was conducted using data for 2005.

It was performed between September 2005 and March 2006 at all aggregation levels, from sites (data sources) to the intermediate aggregation levels (business units and business lines) to the corporate level. It consisted of a review of documents to check that units had appropriate reporting procedures and that their content was relevant, and of verification of eight environmental indicators at 12 sites (three E&P subsidiaries, three refineries, three Chemicals sites, one G&P site and two Marketing unit sites) selected by the auditors.

The eight indicators selected for review, whose relevance for oil companies was confirmed by the auditors, were:

- **Greenhouse gas (GHG) emissions:**
 - **CO₂**
 - **N₂O**
 - **CH₄**
 - **HFC**
- **SO₂ emissions.**
- **NO_x emissions.**
- **Tons of hazardous waste treated offsite.**
- **ISO 14001 certification.**

The review performed by the Statutory Auditors has been repeated every year since, each time generating a moderate level of assurance that reflected the quality of the data reviewed and was published in the 2005, 2006 and 2007 *CSR Reports*.

Reporting Principles

The five basic reporting principles are:

- **Relevance:** The environmental reporting scope and indicators must be representative of the unit's activities and the sensitivity of its environment.
- **Representativeness:** All sources of material emissions/discharges must be reported.
- **Consistency:** Guarantees that year-on-year comparisons are valid.
- **Transparency:** The assumptions and methodologies used for data reporting must be documented. Records must be kept in order to guarantee data traceability.
- **Accuracy:** The methods used must ensure the highest degree of accuracy.

Reporting Methodology

Environmental performance reporting is divided into three consolidation levels:

- **Sites** (the data sources): The sites organize the environmental reporting process at their level, in the framework defined by the business line to which they report (relevant indicators, data flow, schedule). They also verify compliance with the general principles, quantify the indicators for the reporting year and, when necessary, restate the data for the two previous years. Lastly, they verify the consistency of the data reported to the next level.
- The **business line and/or business** organizes the reporting process at its level (relevant indicators, data flow, schedule) in the framework set at the corporate

level, and gathers and aggregates the data from the sites in its scope. It also organizes the control of the reporting scope (annual review of the base of sites for which they are responsible), verifies the consistency of data reported by the sites, aggregates the data at the business line level, and verifies the consistency of the data reported to the corporate level.

- The **corporate** level manages the Group-wide reporting scope by updating the Group site database, jointly selects the relevant environmental reporting indicators with the business lines, aggregates the data from each business line, verifies the consistency of the historical data tracked by the business lines and aggregates the data for the Group as a whole.

Reporting Phases

The environmental reporting process follows the chronology given below:

1. The business lines define the reporting scope and list all corresponding sites.
2. The sites concerned identify emission/discharge sources, select the relevant quantification method for each (measurements, calculation, estimates, etc.), and quantify the values for each reporting indicator. The data are then gathered and aggregated at the intermediate aggregation levels (business units, subsidiaries, countries, etc.) and reported to the business line.
3. The business lines aggregate these data and verify their consistency before reporting them to the corporate level.
4. The corporate level performs final aggregation of the data from the business lines, verifies the consistency of the aggregated data and asks an outside organization to review them. An environmental performance reporting summary of the data gathered, aggregated, checked and verified is then communicated to the business lines.

Reporting Schedule

Total's annual environmental performance reporting covers the period from January 1 to December of the reporting year.

The environmental performance reporting questionnaire for the reporting year encompasses all the indicators concerned and is sent to the business lines by the corporate division in early September of the reporting year. A list of the sites of each business line to be updated for the reporting year is attached. The business lines return the completed questionnaires to the corporate division no later than February 20 of the following year, as well as the updated list of sites for the reporting year.

Reporting Site Scope

Total's reporting is performed by aggregating the data for all Total-operated sites, that is all sites for which Total holds the operating license and therefore exercises operational control over. (A site is the smallest unit of aggregation, at the level of which the business line collects environmental data. Examples include a plant, a

petroleum product depot, a service station network, a gas transmission pipeline grid, a subsidiary and/or a group of exploration and/or producing fields.)

The reporting scope for operated sites is established by the business lines and aggregated at the corporate level through an auditable process. The corporate division creates and updates the Group site database, which is used for this purpose.

Total's environmental reporting process covers direct emissions/discharges at Total-operated sites. For greenhouse gases, indirect emissions (offsite) are also reported.

Within this scope, the method of reporting data is as follows: an operated industrial site must report all the direct emissions/discharges that it generates, even if it is not wholly owned by Total.

Very specific rules are applied to take into account discharges/emissions from sites acquired/divested or commissioned/closed during the reporting year:

- In the case of a site divested during the year, the data are not taken into account in the reporting year and are removed from the scope. This means that the historical values for the two prior years are restated accordingly.
- In the case of a site acquired during the year, all the reporting year indicators are included in the reporting as from January 1. This also necessitates restatement of the historical values to take into account the new unit.
- In the case of a unit closure during the reporting year, the scope is not modified for the reporting year, and the unit's environmental performance indicators are taken into account until the closure date.
- In the case of startup of a newly built site during the reporting year, the indicator values are taken into account as from the site's commissioning date.

Base Years

To be able to track its environmental performance over time, Total has set reduction objectives for certain indicators, to be achieved within a specified number of years from the base year. Examples include oil discharges in production water < 30 ppm for all E&P subsidiaries at end-2007, a 20% reduction in SO₂ emissions between 2004 and 2010 in Refining, and a 30% reduction in COD between 2002 and 2007 in Chemicals.

Total selects a base year, which varies depending on the indicator, to express and track the environmental targets it has set. For greenhouse gases, Total has selected two base years, 1990 and 2000.

The above-stated rules for modifying scope may require the indicator values for the base year and the two previous years to be restated in the event of a material change in the organizational scope, such as a merger, acquisition, divestment, or transfer of ownership or operational control of sites existing in the base year.

Modification rules for historical values are also applied when the methodology for quantifying an indicator is changed or in the event errors are uncovered in prior-year reporting.

Data Management

The corporate division has created a questionnaire that is sent to the 15 business lines in September of each year. Each questionnaire is dedicated to a specific unit, since it includes the values reported by the business lines for the previous two years and the base years.

For the purposes of environmental performance reporting, Total has been broken down into 15 business lines:

Business and/or business line reporting to the corporate division	Business line to be aggregated
E&P	1. Exploration and production sites 2. Midstream
G&P	1. Natural gas 2. Coal 3. Power
R&M: Refining business line	All Refining sites
R&M: Specialties business line	All Specialties activities
R&M: Marketing France business line	All Marketing France activities, subsidiaries and COCO service station networks
R&M: Marketing Europe business line	All Marketing Europe geographic subsidiaries
R&M: Marketing Africa-Middle East business line	All Marketing Africa-Middle East subsidiaries
R&M: Marketing Asia-Pacific	All Marketing Asia-Pacific activities
Chemicals	1. All Total Petrochemicals sites 2. All GPN Fertilizer sites 3. All other Chemicals sites (Atotech, Bostik, Cray Valley, Hutchinson)
Trading & Shipping	Shipping

In addition to the quantitative data relating to each business line's environmental performance, the following information must be reported:

- The operational scope validated by each business line for the reporting year.
- The list of ISO 14001-certified sites.
- The list of spill control resources (maritime, river, onshore) at the sites concerned.

R&M's Marketing and Specialty sites perform simplified reporting. They are not required to quantify indicators that accounted for less than 10% of the Refining & Marketing total for the business line concerned and/or less than 2% of the Group total in the 2004 reporting year. A simplified questionnaire has been designed for these business lines to report the selected indicators.

Indicators provided by the Marketing/Specialties sites are identified with an asterisk.

Data Verification by Business Lines

The consistency of the data reported for the reporting year is automatically checked against the data for the prior year for business lines, to easily identify material year-on-year changes. All material year-on-year changes, i.e. greater than 10%, must be documented in the questionnaire.

Reporting Indicators

Every year, all Total sites, with the exception of the Marketing/Specialties business lines mentioned above, report the following:

A. Data related to site and business line identity

- Number of sites* and changes in the business line scope.
- Percentage of sites that responded directly to the questionnaire*.
- Number of employees dedicated to the environment*.
- List of ISO 14001-certified sites.
- Business line activity indicators*: This indicator is used to make comparisons in specific value and is useful for historical and/or industry comparisons. Activity indicators are defined by the business line, where appropriate. They usually concern unit production data, for example the amount of oil and gas produced in Exploration & Production or the total amount of oil and feedstock refined in Refining.

B. Environmental Data

- **1) Water:** The indicators reported cover the quantities of water withdrawals and discharges, as well as the quality of effluent discharges.
 - Total quantity of freshwater withdrawals excluding once-through cooling water and total quantity of freshwater discharges excluding cooling water and reinjection into deep wells. Freshwater is defined as water containing less than 1.5 g/L of salt.
 - Quality of effluent discharged into the natural environment: hydrocarbons (HC), chemical oxygen demand (COD) and suspended solids.

- **2) Air emissions, excluding GHG emissions**
 - Sulfur dioxide (SO₂)
 - Nitrogen oxide (NO_x)
 - Non-Methane Volatile Organic Compounds*

- **3) GHGs**
 - By type of gas: CO₂, CH₄, N₂O, HFC
 - By emissions source: combustion, processes, flaring and venting, transportation, etc.

- **3) Waste***

Total has elected to define the term “waste” and its potential hazardousness in line with the local legislation and regulations of host countries.

Waste from brownfield sites being remediated is accounted for separately, under the remediation operations section.

To facilitate year-on-year comparisons of waste quantities, waste is divided into two categories: “special hazardous waste” and “hazardous waste from routine operations.”

 - Hazardous waste from routine operations covers operations-related activities, such as tank cleaning, treatment plant cleaning, catalyst replacement, and turnarounds.
 - Special hazardous waste consists solely of contaminated soil (by a spill, for instance) at operating sites and materials from units being dismantled at operating sites.
 - Total waste treatment cost.

- **4) Accidental hydrocarbon spills and spills of products other than hydrocarbons that reach the natural environment***

- Number
- Volume and weight of product spills that reach the natural environment
- Recovered hydrocarbon spills

It should be noted that, in the area of transportation-related environmental accidents, Total reports accidental spills from operated transportation (i.e. own transportation) and transportation under long-term contracts.

Only accidental hydrocarbon spills exceeding 1 barrel (159 liters) that reach the natural environment (water, air, soil, ice) are recorded.

- **5) Primary energy consumed, excluding electricity exports**

This indicator covers all energy consumed by Total, including liquid and gas fuel, purchased fuel and/or fuel from internal production consumed onsite, coke, natural gas as a fuel, and imported electricity and steam, which are converted into a standard unit for publication.

- **6) Remediation Projects***

Remediation projects consist of dismantling units (or facilities) and/or remediation of corresponding sites, carried out at either operating sites (and therefore covering a portion of the site or the dismantling of an installation) or brownfield sites. The data aggregated by Total include:

- Total annual cost of remediation projects at operating sites (including dismantling of units or installations, contaminated soil remediation, studies and work, etc.).
- Number of ongoing remediation projects whose annual cost exceeded €200,000 at operating and brownfield sites.

- **7) Pollution Control Plans*** To track progress in achieving objectives in this area: List of ports and terminals, date the pollution control plan was prepared (or date of the most recent update) and date of the most recent pollution control exercise.

Revising This Directive

The reporting document is revised either periodically or on an exceptional basis in the following situations:

- Emergence of a large number of special cases that call for an amendment to the general recommendations.
- Introduction of an additional indicator.

- Updating in line with guidance (IPIECA, GRI, etc.) or external requirements.
- A revision of Group policy.
- A change in the environmental reporting schedule.