

CHAPTER 13

SCHEDULING AND MANAGING MAINTENANCE OPERATIONS

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13.1 FOREWORD

This chapter describes the procedures whereby the Storage Company schedules and communicates maintenance, flow regulation, enhancement and development operations on the storage facilities in order to assure efficient and safe management of the activities.

In scheduling works of any nature, the Storage Company adopts as a general criterion the minimisation of the impact on the performance made available to Shippers. In this sense, in fact, it engages to make periodic reservoir inspections coincide with those of the surface facilities, and it concentrates these operations during the periods when the required performance is minimal.

In particular, it assumes to carry out the periodic inspection operations on the facilities and the reservoir at the end of the Injection Period and of the Withdrawal Period, whereas the schedules of the Significant Maintenance Operations, as defined in paragraph 13.2 below, and their impacts, are considered among the input data of the definition of available storage capacities as indicated in Chapter 2.

In the paragraphs below, only the operations that entail more or less significant changes to the performance of the storage facilities will be considered.

13.2 TYPES OF OPERATIONS

The aforementioned maintenance operations are classified according to the following categories:

1. Obligations by Law;
2. Functional inspections of the facilities;
3. Flow regulation, enhancement and development works;
4. Restoration work following service emergencies;
5. Interference with third-party works;
6. Other works.

The aforementioned type 3, 4, 5 and 6 works can in turn be classified as non Significant Operations or Significant Operations; they are defined as follows:

- a) **Significant Operation:** a type 3, 4, 5 or 6 Operation carried out on a storage site whose Performance represents at least 40% of the total Performance of the System operated by the Storage Company.

- b) **Non Significant Operation:** a type 3, 4, 5 or 6 Operation carried out on a storage site whose Performance represents less than 40% of the total Performance of the System operated by the Storage Company.

13.2.1 Obligations by Law

This category comprises the set of operations that must be carried out at specified times for regulatory compliance purposes. This category comprises, for example, periodic reservoir inspections: at the end of each Injection and Withdrawal phase, the Storage Company is obligated to check bottom hole static pressures and any presence of an aquifer water head, to verify the behaviour of the reservoir and any hydrocarbon issues. These inspections entail the shut-down of the reservoir and therefore they are scheduled with the goal of minimising the impact on the Storage Service.

13.2.2 Functional inspections of the facilities

The storage company schedules tests of the state of the facilities and maintenance operations, which it periodically carries out. When possible, they are scheduled to coincide with the periodic inspections of the reservoirs. For example, maintenance operations on electric substations, which affect reservoir capacity, are carried out during the scheduled shut-downs of the wells.

In other cases, the impact of maintenance work on operations is minimised by carrying out compressor maintenance, for example, during the spontaneous withdrawal from the wells, and maintenance on the treatment plants during the injection half-year.

13.2.3 Flow regulation, enhancement and development works

The purpose of flow regulation, enhancement and development of a storage site is to increase the storage capacity in a current concession.

Merely by way of non-comprehensive example, the aforesaid works consist of:

- a) Workover operations;
- b) Deepening of existing wells and/or recompletion to carry out storage operations in another level;
- c) Drilling of new wells;
- d) Construction and commissioning of new surface facilities and/or their enhancement;
- e) Construction and commissioning of new treatment plants;
- f) Construction and commissioning of new compression stations and/or their enhancements;
- g) Commissioning of new flow lines;

- h) Other enhancement works relating to the extension of storage to other levels without changes to the concession area;
- i) Other enhancement works relating to the increase of the maximum storage pressure;

13.2.4 Restoration work following service emergencies

These are works directed at restoring pre-existing performance in reservoirs affected by service emergencies that have ceased, but have left the reservoirs impacted by the emergency with reduced performance. This category comprises restoration works after failures or anomalies in the operation of the surface facilities.

13.2.5 Interference with third-party works

These are operations deriving from works scheduled by third parties (e.g. construction/enlargement of roadbeds, motorways, railways, etc.-) that are not a part of the gas system, but that generate impacts on the System.

13.2.6 Other works

This category comprises all works not included in the previous types: for example, this paragraph includes tests on wells and any tests on the reservoirs during the withdrawal/injection cycles to verify the behaviour of the reservoirs, and the tests and/or shut-downs required by regulatory authorities.

13.3 SCHEDULE OF OPERATIONS

The storage company shall make available to shippers, through its website, the maintenance plan at least annually, every six months and monthly.

Said plan must contain at the least the following information:

- a) the reservoir that will be involved in the operations;
- b) a brief description of the activities planned;
- c) the month of the thermal year concerned by the operations;
- d) the starting date and ending date;
- e) the number of days of unavailability;
- f) the capacity (expressed as a percentage of the available capacity at the start of the thermal year and the assigned capacity) which will not be available due to the operations.

13.3.1 Annual schedule of maintenance operations

No later than 1 February (or, if it is a holiday, the last preceding working day), the Storage Company communicates to the Shippers, through its own Website, the schedule of Maintenance Operations on the storage facilities planned for the following Thermal Year, which will cause Performance unavailability or reduction. This communication is solely indicative and not binding.

Whenever possible, the Storage Company coordinates its own annual schedule of Maintenance Operations with the maintenance plans of the Transport Companies, in order to minimise service outage periods.

13.3.2 Half-yearly revision of the Maintenance Plan

The Storage Company reserves the right to revise the annual schedule of Maintenance Operations, with half-yearly periodicity, communicating it to Shippers - on an indicative, non-binding basis - through its Website no later than the First of August.

13.3.3 Monthly schedule of Maintenance Operations

No later than the 10th day (or the first following working day if the 10th is a Saturday, Sunday or holiday or non-working day) of the Month preceding the month the monthly plan refers to, the Storage Company shall indicate, on its Website, the schedule of the Maintenance Operations that impact the daily performance (expressed in energy) available for the following Month.

13.3.4 Plan of unscheduled operations

Excepting the cases per Paragraph 13.2.4, the Storage Company notifies, at least 3 working days before the start of the works, any unplanned maintenance operations per Paragraph 12.3.2.1 or changes to the previously planned activity.

In the case of unscheduled maintenance operations, made necessary by the emergency situations described in Paragraph 18.2 of the chapter “Management of service emergencies”, the Storage Company shall promptly notify Shippers and shall make its best effort to minimise the duration of any reduction in capacity and the time necessary to restore the original situation.