

§ 157.213

natural gas facilities that are used to transport either a mix of synthetic and natural gas or exclusively revaporized liquefied natural gas and that are not “related jurisdictional natural gas facilities” as defined in §153.2(e) of this chapter. The cost of a project may not exceed the cost limitation provided in column 2 of Table I in §157.208(d). The certificate holder must not segment projects in order to meet this cost limitation.

[Order 686, 71 FR 63693, Oct. 31, 2006]

§ 157.213 **Underground storage field facilities.**

(a) *Automatic authorization.* If the project cost does not exceed the cost limitations provided in column 1 of Table I in §157.208(d), the certificate holder may acquire, construct, modify, replace, and operate facilities for the remediation and maintenance of an existing underground storage facility, provided the storage facility’s certificated physical parameters—including total inventory, reservoir pressure, reservoir and buffer boundaries, and certificated capacity remain unchanged—and provided compliance with environmental and safety provisions is not affected. The certificate holder must not alter the function of any well that is drilled into or is active in the management of the storage facility. The certificate holder must not segment projects in order to meet this cost limitation.

(b) *Prior Notice.* Subject to the notice requirements of §§157.205(b) and 157.208(c), the certificate holder is authorized to acquire, construct, modify, replace, and operate natural gas underground storage facilities, provided the storage facility’s certificated physical parameters—including total inventory, reservoir pressure, reservoir and buffer boundaries, and certificated capacity remain unchanged—and provided compliance with environmental and safety provisions is not affected. The cost of a project may not exceed the cost limitation provided in column 2 of Table I in §157.208(d). The certificate holder must not segment projects in order to meet this cost limitation.

(c) *Contents of request.* In addition to the requirements of §§157.206(b) and 157.208(c), requests for activities au-

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thorized under paragraph (b) of this section must contain, to the extent necessary to demonstrate that the proposed project will not alter a storage reservoir’s total inventory, reservoir pressure, reservoir or buffer boundaries, or certificated capacity:

(1) A description of the current geological interpretation of the storage reservoir, including both the storage formation and the caprock, including summary analysis of any recent cross-sections, well logs, quantitative porosity and permeability data, and any other relevant data for both the storage reservoir and caprock;

(2) The latest isopach and structural maps of the storage field, showing the storage reservoir boundary, as defined by fluid contacts or natural geological barriers; the protective buffer boundary; the surface and bottomhole locations of the existing and proposed injection/withdrawal wells and observation wells; and the lengths of open-hole sections of existing and proposed injection/withdrawal wells;

(3) Isobaric maps (data from the end of each injection and withdrawal cycle) for the last three injection/withdrawal seasons, which include all wells, both inside and outside the storage reservoir and within the buffer area;

(4) A detailed description of present storage operations and how they may change as a result of the new facilities or modifications. Include a detailed discussion of all existing operational problems for the storage field, including but not limited to gas migration and gas loss;

(5) Current and proposed working gas volume, cushion gas volume, native gas volume, deliverability (at maximum and minimum pressure), maximum and minimum storage pressures, at the present certificated maximum capacity or pressure, with volumes and rates in MMcf and pressures in psia;

(6) The latest field injection/withdrawal capability studies including curves at present and proposed working gas capacity, including average field back pressure curves and all other related data;

(7) The latest inventory verification study for the storage field, including methodology, data, and work papers;

(8) The shut-in reservoir pressures (average) and cumulative gas-in-place (including native gas) at the beginning of each injection and withdrawal season for the last 10 years; and

(9) A detailed analysis, including data and work papers, to support the need for additional facilities (wells, gathering lines, headers, compression, dehydration, or other appurtenant facilities) for the modification of working gas/cushion gas ratio and/or to improve the capability of the storage field.

[Order 686, 71 FR 63693, Oct. 31, 2006, as amended by Order 686-A, 72 FR 37436, July 10, 2007]

§ 157.214 Increase in storage capacity.

(a) *Prior notice.* Subject to the notice requirements of §157.205, the certificate holder is authorized to increase the maximum volume of natural gas authorized to be stored in a storage field to the extent that geological data and operating experience have demonstrated that a volume of natural gas greater than that currently certificated may be safely stored without the construction of additional facilities.

(b) *Contents of request.* In addition to the requirements of §157.205(b), requests filed for activities described in paragraph (a) shall contain:

(1) Current and requested maximum storage capacity;

(2) Current and requested maximum storage pressure;

(3) Average depth of the storage formation;

(4) Copies of any geological or engineering studies that demonstrate the feasibility of the increase in storage volume; and

(5) A statement setting forth the purpose of the proposed increased capacity.

(c) *Reporting requirements.* For any storage facility whose capacity is increased pursuant to this section, the certificate holder shall submit, in the manner prescribed in §385.2011 of this chapter, semi-annual reports (to coincide with the termination of the injection and withdrawal cycles) containing the information listed in subdivisions (1) through (8) of this paragraph. The certificate holder shall continue to file semi-annual reports until the storage

inventory volume has reached, or closely approximates, the maximum specified in the request. Thereafter, the reports shall continue on a semi-annual basis for a period of one year. The filing of reports shall be discontinued thereafter unless otherwise ordered by the Commission. (Volumes shall be stated at 14.73 psia and 60° F, and pressures shall be stated in psia.)

(1) The daily volume of natural gas injected into and withdrawn from the storage reservoir.

(2) The volume of natural gas in the reservoir at the end of the reporting period.

(3) The maximum daily injection or withdrawal rate experienced during the reporting period and the average working pressure on such maximum days taken at a central measuring point where the total volume injected or withdrawn is measured.

(4) Results of any tracer program by which the leakage of injected gas may be determined. If the leakage of gas exists, the report should show the estimated total volume of gas leakage, the volume of recycled gas and the remaining inventory of gas in the reservoir at the end of the reporting period.

(5) Any surveys of pressures in gas wells, water levels in observation wells, pump test results for the aquifer-type reservoirs, and the results of back-pressure tests conducted during the reporting period.

(6) The latest revised structure and isopachous contour maps showing the location of the wells, the location and extent of the gas bubble in the storage reservoir for aquifer-type reservoirs and in any other reservoirs of the project in which gas bubbles are known to exist. This map need not be filed if there is no material change from the map previously filed.

(7) Discussion of current operating problems and conclusions.

(8) Such other data or reports which may aid the Commission in the evaluation of the storage project.

[Order 234, 47 FR 24266, June 4, 1982, as amended by Order 493, 53 FR 15030, Apr. 27, 1988]