

167 FERC ¶ 61,049  
UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Neil Chatterjee, Chairman;  
Cheryl A. LaFleur, Richard Glick,  
and Bernard L. McNamee.

Southern Star Central Gas Pipeline, Inc.

Docket No. CP17-219-001

ORDER GRANTING REHEARING AND AMENDING CERTIFICATE  
AUTHORIZATION

(Issued April 18, 2019)

1. On September 20, 2018, the Commission issued an order granting, in part, Southern Star Central Gas Pipeline, Inc.'s (Southern Star) application for a certificate of public convenience and necessity under section 7(c) of the Natural Gas Act (NGA)<sup>1</sup> to acquire additional property rights and expand the certificated boundaries of its Webb Storage Field in Grant County, Oklahoma.<sup>2</sup> This order grants Southern Star's timely request for rehearing to expand the Webb Storage Field's certificated boundary to include an additional 80 acres in Section 1 of the North Nardin area, for the recovery of migrated storage gas.

**I. Background**

2. Southern Star's 3,730-acre<sup>3</sup> Webb Storage Field has a maximum certificated storage capacity of approximately 46,000 million cubic feet (MMcf), including a certificated working gas capacity of 12,500 MMcf, and a maximum certificated wellhead shut-in pressure of 1,850 pounds per square inch. The current certificated maximum

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<sup>1</sup> 15 U.S.C. § 717f(c) (2012).

<sup>2</sup> *Southern Star Central Gas Pipeline, Inc.*, 164 FERC ¶ 61,201 (2018) (Certificate Order).

<sup>3</sup> This acreage includes the Webb Storage Field's 3,250-acre certificated boundary prior to the Certificate Order, plus the Certificate Order's approved horizontal expansions in the North Nardin area of 320 acres in Section 1 and 160 acres in Section 12 in Grant County, Oklahoma.

deliverability for the field is not expected to exceed 203 MMcf/day at minimum inventories.<sup>4</sup>

3. The geologic structure of the Webb Storage Field and surrounding area includes (from shallowest to deepest): the Checkerboard Limestone, Seminole Shale, Oswego Limestone, Skinner Sandstone, Red Fork Sandstone, Mississippian Chert, Mississippian Limestone, and Wilcox Sandstone. Southern Star holds storage rights from at least the base of the Mississippian Chert to the top of the Oswego Limestone for all 3,520 acres of the Webb Gas Storage Field, except for 160 acres in the KLO area<sup>5</sup> of its storage field, where, prior to the Certificate Order, Southern Star's acquired storage rights extended upward only to the base of the Oswego Limestone.<sup>6</sup> Southern Star injects the gas for storage into the Mississippian Chert, which is in hydraulic communication with the overlying Red Fork Sandstone such that the two formations act as one common reservoir.<sup>7</sup>

4. Over time, gas from the Webb Storage Field migrated upward into the Skinner Sandstone and the Oswego Limestone due to historical operations, workover programs, stimulation treatment, and drilling activities.<sup>8</sup> In order to monitor and ensure the integrity of its storage fields, Southern Star contracted with: (1) Weatherford Laboratories (Weatherford) to characterize the origin of gases produced from various oil/gas wells near the Webb Storage Field and to quantify the amount of storage gas in any samples that were found to contain storage gas;<sup>9</sup> and (2) Netherland, Sewell and Associates, Inc.

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<sup>4</sup> Southern Star's Application at 3.

<sup>5</sup> KLO LLC, a natural gas production company, owns four wells in the KLO area. Three of the wells are active and Southern Star asserts that the wells are in communication with its storage reservoirs due to perforation and fracture-stimulation of the Oswego Limestone. The fourth well's completion location is in the Wilcox Sandstone, below Southern Star's storage reservoir. This well is not currently producing gas; however, it has previously tested positive for some storage gas. Southern Star's Application at 7.

<sup>6</sup> Southern Star's August 31, 2017 Data Response at 62-64, Question No. 12 (Accession No. 20170831-5133).

<sup>7</sup> Southern Star's Application at 3-4.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* at Exhibit Z1 ("Observations Concerning Gases Collected in the Vicinity of the Webb Storage Field" that was issued in August 2015 (Weatherford Report)).

(NSAI) to analyze gas migration issues associated with the reservoirs at the Webb Storage Field.<sup>10</sup> The reports confirmed that gas had migrated outside of the Webb Storage Field's certificated boundary.

5. On April 21, 2017, Southern Star filed a certificate application requesting that the Commission grant it certificate authority to expand portions of the Webb Storage Field's certificated boundary horizontally (in the North Nardin Field) and vertically (in the KLO area) so that Southern Star could recover gas that had migrated outside of its storage field.<sup>11</sup> In the North Nardin Field, Southern Star proposed to expand the eastern certificated gas storage boundary horizontally by 1,120 acres.<sup>12</sup> In this expansion area, Southern Star sought to acquire the same mineral and property rights that it currently holds in the North Nardin Field, e.g., rights from the base of the Mississippian Chert to the top of the Oswego Limestone. Southern Star explained that expansion of its certificated storage boundaries in the North Nardin Field would prevent third party producers from producing storage gas from the Red Fork Sandstone, which lies above the Mississippian Chert.<sup>13</sup> In the KLO area, Southern Star proposed to expand the storage boundary vertically within the existing certificated boundary in a 160 acre tract in a northeast section of the field.<sup>14</sup> Southern Star requested that the vertical expansion include the storage and mineral rights from the top of the Oswego Limestone down to the bottom of the Wilcox Sandstone.<sup>15</sup>

6. The Certificate Order found that expansion of the Webb Storage Field was necessary to the extent authorized to protect the integrity of the storage reservoir and end production activities extracting migrated gas storage gas that belongs to Southern Star's shippers.<sup>16</sup> The order approved Southern Star's request to expand the storage boundary

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<sup>10</sup> *Id.* at Exhibit Z3 ("An Analysis of Certain Gas Migration Issues" that was issued in April 2016 (NSAI Report)).

<sup>11</sup> *See id.* at 5-9.

<sup>12</sup> *Id.* at 6.

<sup>13</sup> *Id.*

<sup>14</sup> *Id.* at 7.

<sup>15</sup> *Id.* Southern Star already owns the storage and mineral rights within the three gas-bearing formations lying between the Oswego and Wilcox formations in the KLO Area (Skinner Sandstone, Red Fork Sandstone, and Mississippian Chert).

<sup>16</sup> Certificate Order, 164 FERC ¶ 61,201 at P 19.

vertically in the KLO area, subject to certain conditions.<sup>17</sup> However, the Certificate Order approved the expansion in the North Nardin area only to the extent that the record supported a finding that storage gas is migrating into the requested expansion area.<sup>18</sup>

7. In the North Nardin area, Southern Star sought to horizontally expand its boundary by 1,120 acres: 480 acres in East  $\frac{3}{4}$  Section 1, Township 27N, and Range 3W (referred to herein as Section 1 acreage); and 640 acres in Section 12, Township 27N, and Range 3W (referred to herein as Section 12 acreage).<sup>19</sup> Southern Star stated that storage gas migrated into the North Nardin area through the Red Fork Sandstone;<sup>20</sup> however, the Certificate Order found that Red Fork Sandstone is not present in the majority of the north quarter of the Section 1 acreage and is present in approximately 412 acres of the Section 12 acreage.<sup>21</sup> The Certificate Order also found that two production wells (Gabl 1 and Wilma Mills #1) in the Section 1 acreage contained a mixture of storage and native gas and the Sawyer #2 well in the northeast corner of the Section 12 acreage appeared to be hydraulically connected to storage operations.<sup>22</sup> Based on these findings, the Certificate Order granted Southern Star the authority to expand the Webb Storage Field's certificated boundary in the North Nardin area: (1) 320 acres in Section 1 (as opposed to the requested 480 acres); and (2) 160 acres in the north quarter of Section 12 (as opposed to the requested 640 acres).<sup>23</sup>

8. Southern Star seeks reconsideration or in the alternative rehearing of the Certificate Order's determination that Southern Star's requested horizontal expansion in the Section 1 acreage of the North Nardin area is unreasonable.

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<sup>17</sup> *Id.* PP 34-43 and ordering para. (A)(2).

<sup>18</sup> *Id.* P 19.

<sup>19</sup> *Id.* n.27.

<sup>20</sup> Southern Star's Certificate Application at 6.

<sup>21</sup> Certificate Order, 164 FERC ¶ 61,201 at P 33 (citing Southern Star's August 31, 2018 Data Response at 60, Question No. 10 (Accession No. 20170831-5133)).

<sup>22</sup> *Id.* P 32.

<sup>23</sup> *Id.* P 33 and ordering para. (A)(1).

## II. Procedural Issues

9. On November 5, 2018, Jim Reese and Darrell Reese, jointly, filed comments opposing Southern Star's request for rehearing.<sup>24</sup> We find that the comments amount to an answer to Southern Star's request for rehearing. Rules 213 and 713 of the Commission's Rules of Practice and Procedure prohibit answers to a request for rehearing.<sup>25</sup> Accordingly, we reject Jim Reese and Darrell Reese's filing.

## III. Discussion

10. Southern Star seeks rehearing of the Certificate Order's decision to limit the horizontal expansion of the Webb Storage Field to only 320 acres of its requested 480 acres in Section 1 of the North Nardin area.<sup>26</sup> Southern Star contends that the Commission erred by not including an 80-acre area in the northeast quarter of Section 1.<sup>27</sup> Southern Star states that the order recognized evidence presented from its Weatherford report that stated "methane and ethane components in wells Jeanette 1, and Wilma Mills #1 and #2 were probably largely or entirely storage gas."<sup>28</sup> Additionally, Southern Star cites to its NSAI report, which shows that Red Fork Sandstone underlies the Jeanette 1 well in the eastern portion of the northeast quarter of Section 1. Southern Star states that the Certificate Order approved expansion to the portion of Section 1 that includes Wilma Mills #1 and #2, but did not approve expansion to the portion of Section 1 containing the Jeanette 1 well.<sup>29</sup> Southern Star asserts that the Certificate Order failed to adequately explain why it excluded the Jeanette 1 well area from the authorized expansion of the certificated boundary.<sup>30</sup>

11. Southern Star requests that the Commission grant rehearing of the Certificate Order and authorize the expansion of the Webb Storage Fields's certificated boundary by

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<sup>24</sup> Jim Reese and Darrell Reese's November 5, 2018 Comments (Accession No. 20181105-5026).

<sup>25</sup> 18 C.F.R. §§ 385.213(a)(2) and 385.713(d)(1) (2018).

<sup>26</sup> Southern Star's Request for Rehearing at 3-4.

<sup>27</sup> *Id.* at 4.

<sup>28</sup> *Id.*

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

an additional 80 acres in the northeast quarter of Section 1 to the area containing the Jeanette 1 well.<sup>31</sup> Southern Star explains that expansion to this area will secure the storage field's boundary and prevent third-party producers from producing storage gas from the Red Fork Sandstone.<sup>32</sup>

12. The Certificate Order did not grant Southern Star the full 480 acres it requested to expand its certificated boundary in Section 1 for two reasons. First, the order determined that the Red Fork Sandstone, which acts as the storage reservoir in concert with the Oswego Limestone, is not present in the majority of the north quarter of the Section 1 acreage.<sup>33</sup> Second, the Certificate Order found that the Wilma Mills #1 production wells in the Section 1 acreage contained a mixture of storage and native gas and represented the approximate extent to which storage gas migrated outside of the Webb Storage Field.<sup>34</sup> The Jeanette 1 well is located outside of the area where Red Fork Sandstone is present in Section 1 and outside of the area where the Certificate Order found storage gas migration.

13. The Jeanette 1 well is a plugged gas well that produced 166,328 thousand cubic feet (Mcf) of natural gas over the course of its life.<sup>35</sup> Although the Jeanette 1 well produced a minimal amount of gas during its lifetime, we concur with the Weatherford Report that the composition of the gas the well did produce is largely similar to storage gas.<sup>36</sup> Thus, to maintain the integrity of the storage field and prevent third-party producers from producing storage gas from the Jeanette 1 well area, we grant rehearing. Accordingly, we approve Southern Star's request to expand the Webb Storage Field horizontally by an additional 80 acres in the northeast quarter of Section 1 in the North Nardin area.

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<sup>31</sup> *Id.*

<sup>32</sup> *Id.* at 5.

<sup>33</sup> Certificate Order, 164 FERC ¶ 61,201 at P 33.

<sup>34</sup> *Id.* P 33.

<sup>35</sup> Southern Star's Request for Rehearing at 4 n.8; Southern Star's May 23, 2018 Data Response at 5 (Accession No. 20180523-5163); Southern Star's January 10, 2018 Data Response at 13, Attachment 3-2 (Accession No. 20180110-5059); Southern Star's August 31, 2017 Data Response at 37 (Accession No. 20170831-5133).

<sup>36</sup> Southern Star's October 20, 2017 Data Response at 6, Table 1 (Accession No. 20171020-5179) and Southern Star's Application at 71, Exhibit Z2.

14. The Commission on its own motion received and made a part of the record in this proceeding all evidence, including the application, and exhibits thereto, and all comments, and upon consideration of the record,

The Commission orders:

(A) Southern Star Central Gas Pipeline, Inc.'s request for rehearing is granted.

(B) The certificate of public convenience and necessity issued in the September 20, 2018 order in this proceeding is amended to authorize the expansion of the certificated boundary of the Webb Storage Field horizontally in the North Nardin Area to include an additional 80 acres in Section 1, Township 27N, and Range 3W (S1 T27N R3W) in Grant County, Oklahoma.

(C) Jim Reese and Darrell Reese's November 5, 2018 answer is rejected.

By the Commission.

( S E A L )

Nathaniel J. Davis, Sr.,  
Deputy Secretary.