157 FERC ¶ 61,151
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, and Colette D. Honorable.

California Independent System Operator Corporation — Docket No. ER17-110-000

ORDER ACCEPTING TARIFF REVISIONS, SUBJECT TO CONDITION

(Issued November 28, 2016)

1. On October 14, 2016, the California Independent System Operator Corporation (CAISO) filed, pursuant to section 205 of the Federal Power Act (FPA),[1] revisions to its tariff to maintain in effect certain tariff provisions to address the limited operability of the Aliso Canyon natural gas storage facility that were previously accepted, subject to condition, and which are currently scheduled to automatically expire on November 30, 2016. In this order, we accept the proposed tariff revisions, subject to condition, effective November 30, 2016, as requested.

I. **Background**

2. In October 2015, the Aliso Canyon natural gas storage facility in southern California experienced a large natural gas leak that significantly depleted the storage field. The leaking gas well was capped in February 2016, but the State of California prohibited injections of natural gas into Aliso Canyon until a comprehensive safety review is completed. The facility is a key part of the gas system serving customers in the Los Angeles Basin and San Diego, California, including many gas-fired power plants. Operational limits imposed on the storage facility were expected to stress the gas system during the summer when gas-fired electric generation is called upon to serve both high summer electric load and sudden and large changes in electric load due to the variable nature of renewable generation.[2]

[1] 16 U.S.C. § 824d (2012).

[2] *Cal. Indep. Sys. Operator Corp.*, 155 FERC ¶ 61,224, at P 3 (2016) (June 1 Order).

3. On May 9, 2016, CAISO proposed tariff revisions to provide it with a set of tools, on an interim basis, to address the reliability and market distortion risks posed to CAISO's electric system by the limited operability of Aliso Canyon. As relevant here, CAISO proposed measures to: (1) provide scheduling coordinators with two-day ahead advisory schedules; (2) use a more timely gas price index for calculating commitment cost caps, default energy bids, and generated bids; (3) increase the gas price used to calculate commitment cost caps, default energy bids, and generated bids for resources connected to the affected gas systems; (4) enforce a natural gas constraint in the real-time market clearing process; (5) deem certain transmission paths non-competitive due to enforcement of the natural gas constraint; (6) reserve internal transfer capability; (7) make adjustments to its monthly congestion revenue rights auction and allocation process; (8) suspend convergence bidding for purposes of market efficiency; and (9) permit scheduling coordinators to seek after-the-fact recovery of fuel costs related to commitment costs and energy bids from the Commission through an FPA section 205 filing.[3] CAISO submitted tariff records for the proposed revisions so that they would automatically expire on November 30, 2016 absent Commission action to maintain them in effect. In an order issued June 1, 2016, the Commission accepted the proposed revisions, subject to condition, and directed Commission staff to convene a technical conference to discuss lessons learned during the summer of 2016 and potential longer-term solutions (September 16 Technical Conference).[4]

4. CAISO states that it expects that Aliso Canyon will not be operational during the bulk of 2017. CAISO reports that an inter-agency task force[5] recently performed studies that concluded that, although the risk to electric reliability presented by the limited operability of Aliso Canyon is expected to be less this coming winter than it was this past summer, challenges will continue. Specifically, the analysis indicated a continued risk of gas curtailments to gas-fired electric generation, and the potential for interruptions of service to electric load.[6]

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[3] *Id.* PP 14, 19-22, 36-41, 54-56, 72-73, and 85-87.

[4] *Id.* PP 12-13, 104. CAISO submitted its compliance filing to the June 1 Order, and the Commission accepted it in an order issued August 26, 2016. *Cal. Indep. Sys. Operator Corp.*, 156 FERC ¶ 61,135 (2016).

[5] The members of this task force are the California Public Utilities Commission, California Energy Commission, CAISO, Southern California Gas Company (SoCalGas), and the Los Angeles Department of Water and Power.

[6] CAISO Filing at 15-16.

II. CAISO Filing

5. To address the continued risk to electric reliability presented by the limited operability of Aliso Canyon, CAISO proposes to maintain in effect for an additional year beyond the current November 30, 2016 expiration date the majority of the tariff provisions accepted in the June 1 Order,[7] either with or without modification, as discussed in greater detail below.

6. First, CAISO proposes to maintain in effect, without modification, the tariff provisions for providing scheduling coordinators, for informational purposes only, two-day ahead advisory schedules to assist scheduling coordinators with gas procurement decisions and gas nomination decisions.[8]

7. Second, CAISO proposes to maintain in effect, without modification, its use of a more timely and accurate gas commodity price for commitment cost bid caps, default energy bids, and generated bids in the day-ahead market, based on Intercontinental Exchange (ICE) generated gas prices that CAISO will obtain between 8:00 a.m. PT and 9:00 a.m. PT, which should result in day-ahead schedules that are better aligned with actual gas system conditions.[9]

8. Third, CAISO proposes to maintain in effect, without modification, its use of a gas price adder to calculate commitment cost caps and default energy bids for generators served by the affected gas systems by an amount necessary to ensure that CAISO's real-time market-clearing process can take into account the impact of gas system limitations and avoid further aggravating existing gas system constraints. Specifically, CAISO proposes to maintain its existing initial increase of 75 percent for calculating commitment

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[7] We note that in an order issued November 21, 2016, the Commission accepted CAISO's proposal to make permanent the following three measures that were accepted on an interim basis in the June 1 Order: (1) revisions to permit scheduling coordinators, except under two limited circumstances, to rebid commitment costs in the real-time markets; (2) revisions to the short-term unit commitment process; and (3) revisions to permit scheduling coordinators to seek after-the-fact fuel costs related to commitment costs from the Commission through FPA section 205 filings. *Cal. Indep. Sys. Operator Corp.*, 157 FERC ¶ 61,138 (2016) (November 21 Order).

[8] CAISO Filing at 18-20.

[9] *Id.* at 20-26. We note that an order was issued on October 20, 2016, finding that CAISO's procedures for using more timely gas prices conforms with the Commission's policy statement on natural gas and electric price indices. *Cal. Indep. Sys. Operator Corp.*, 157 FERC ¶ 61,029, at P 1 (2016).

cost caps and 25 percent for calculating default energy bids and generated bids for resources connected to the SoCalGas or San Diego Gas & Electric (SDG&E) systems. CAISO states that these increases continue to be just and reasonable because they should enable the real-time clearing process to continue to dispatch resources connected to the affected gas systems only for local, and not system, needs, and should also provide enough headroom for these resources to reflect costs. CAISO also proposes to maintain the flexibility to adjust these increases based on observed market conditions and outcomes.[10]

9. Fourth, CAISO proposes to maintain in effect, with modification, its use of a gas constraint in the CAISO market clearing process. The measures accepted in the June 1 Order gave CAISO the authority to employ both a maximum and a minimum gas constraint. Here, CAISO proposes to continue use of the maximum gas constraint to limit the maximum amount of generation dispatched in a given area of the CAISO balancing authority if burning more gas might risk jeopardizing gas and electric system reliability. However, based on summer performance observations, CAISO determined that resources have the ability to meet imbalance limitations requiring them to burn a minimum amount of gas by lowering their bid prices or by self-scheduling into the CAISO markets. Thus, CAISO does not propose to retain the minimum gas constraint authority in its tariff. As with the currently effective interim tariff provisions, when the constraint is binding, CAISO will reflect the shadow price of the constraint in the marginal cost component of the resource-specific locational marginal prices of only the affected gas-fired resources. CAISO will continue to implement this approach by applying the constraint only to the resource-specific price at the connectivity node (CNode) used to dispatch affected generators but not to the bus location reflecting the point of delivery (PNode). CAISO also notes that it used its existing exceptional dispatch tariff authority to manage potential gas system limitations in southern California this past summer, but does not propose any revisions to the current exceptional dispatch tariff provisions.[11]

10. Fifth, in conjunction with the authority to enforce the gas constraint, CAISO proposes to maintain in effect, without modification, the tariff provisions regarding two related features to address potential market issues. First, CAISO proposes to maintain the tariff language whereby it may deem certain transmission paths to be non-competitive outside of the automated local market power mitigation process, which does not incorporate the impact of the natural gas constraint. Second, CAISO proposes to retain its authority to suspend convergence bidding if use of the maximum gas burn constraint is adversely affecting market efficiency. CAISO states that the authority to suspend

[10] *Id.* at 26-33.

[11] *Id.* at 33-42.

convergence bidding remains necessary because there may be times, given the measures CAISO may need to take to address electric and gas reliability, when promoting price convergence runs counter to the efficient economic solution of the market. CAISO also states that use of the gas constraint could lead to sustained differences in prices between locations and between the day-ahead and real-time markets that could be exploited by convergence bidders without yielding any market benefits.[12]

11. In addition, CAISO proposes new tariff language to augment the after-the-fact cost recovery measures accepted in the June 1 Order. In the June 1 Order, the Commission accepted, on an interim basis, procedures that permit scheduling coordinators to seek after-the-fact cost recovery of both fuel-related commitment costs and incremental fuel costs associated with: (1) default energy bids under the variable cost option; and (2) generated bids by submitting an FPA section 205 filing to the Commission. CAISO proposes to continue allowing scheduling coordinators, on an interim basis, to seek after-the-fact recovery of incremental fuel costs relating to generated bids and all types of default energy bids (i.e., not just default energy bids under the variable cost option).[13] CAISO states that it is considering additional long-term measures to enhance cost recovery in a separate stakeholder proceeding, but asserts that these augmented after-the-fact cost recovery procedures are necessary as a backstop if, as a result of unexpected events due to the limited operability of Aliso Canyon, a scheduling coordinator cannot recover its fuel-related costs through the normal tariff mechanisms.[14]

12. Finally, CAISO proposes to discontinue the tariff provisions accepted in the June 1 Order that concerned CAISO's authority to reserve internal transfer capability. CAISO states that these provisions are no longer needed to manage reliability. In tandem with discontinuing the reservation of internal transfer capability tariff provisions, CAISO also proposes to discontinue the tariff provisions accepted in the June 1 Order that permit CAISO to adjust its monthly congestion revenue rights auction and allocation process. CAISO states that because it no longer needs to reserve internal transfer capability, it also no longer requires the authority to adjust the congestion revenue rights process.[15]

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[12] *Id.* at 43-44.

[13] We note that in the November 21 Order, the Commission accepted CAISO's proposal to make permanent the after-the-fact cost recovery procedures solely associated with fuel-related commitment costs.

[14] CAISO Filing at 44-46.

[15] *Id.* at 47.

13. CAISO requests an effective date of November 30, 2016 for the instant revisions, and also requests waiver of the Commission's prior notice requirement to permit the revisions to become effective on that date. CAISO states that good cause exists to grant this waiver because the tariff provisions accepted in the June 1 Order will automatically expire on that date. CAISO proposes that the instant revisions will automatically expire on November 30, 2017, and will be superseded by the tariff provisions in effect prior to June 1, 2016, if the Commission does not take action to extend them beyond that date.[16]

III. Notice of Filing and Responsive Pleadings

14. Notice of CAISO's filing was published in the *Federal Register*, 81 Fed. Reg. 72,801 (2016), with interventions and protests due on or before October 24, 2016. The CAISO Department of Market Monitoring (CAISO DMM) filed timely comments. Timely motions to intervene were filed by the Alliance for Retail Energy Markets; California Department of Water Resources State Water Project; Pacific Gas and Electric Company; and Northern California Power Agency. Timely motions to intervene and comments were filed by Southern California Edison Company (SoCal Edison); NV Energy, Inc. (NV Energy); and the Environmental Defense Fund (EDF). The Cities of Anaheim, Azusa, Banning, Colton, Pasadena, and Riverside, California; the Modesto Irrigation District; and jointly the City of Santa Clara, California and the M-S-R Public Power Agency filed out-of-time motions to intervene. The Western Power Trading Forum (WPTF) filed an out-of-time motion to intervene and comments. CAISO filed an answer on November 8, 2016.

IV. Comments

15. NV Energy supports CAISO's proposal. In particular, NV Energy notes its support for CAISO's proposed enhancements to the after-the-fact cost recovery provisions. NV Energy also requests that the Commission direct CAISO to commence a stakeholder process to address on a permanent basis the ability of energy imbalance market entities, which are required to participate in the energy imbalance market using bids capped at their default energy bids, to recover their fuel procurement costs.[17]

16. SoCal Edison and CAISO DMM also support CAISO's proposal but express concern about the lack of market power mitigation measures for exceptional dispatches that are related to Aliso Canyon gas issues. CAISO DMM states that Aliso Canyon-

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[16] *Id.* at 48-49.

[17] NV Energy Comments at 5-7. However, NV Energy acknowledges that CAISO recently announced a new initiative to address commitment costs and default energy bid enhancements. *Id.* at n.16.

related exceptional dispatches are non-competitive and, therefore, that type of exceptional dispatch (both incremental and decremental) should be subject to mitigation. CAISO DMM asserts that existing non-competitive exceptional dispatch mitigation measures could be extended to apply to incremental exceptional dispatches related to Aliso Canyon. For non-competitive decremental exceptional dispatches, CAISO DMM recognizes that CAISO would need to propose new settlement prices. CAISO DMM suggests that initially the higher of a resource's bid price or $0/MWh be used for mitigating decremental exceptional dispatches, creating a price floor of $0/MWh as a mitigation measure. CAISO DMM contends that timely implementation of such measures is important given the Aliso Canyon situation.[18] CAISO DMM and SoCal Edison state that addressing this issue should not require an extensive market design and stakeholder process.[19] However, CAISO DMM notes CAISO's commitment to examine this issue as part of a future stakeholder proceeding and states that if CAISO believes that it will take a major market design and stakeholder effort to address this issue, it recommends that the Commission and CAISO place a higher priority on certain other issues.[20]

17. CAISO DMM also supports CAISO's proposal to maintain the current 75 percent and 25 percent initial adders for the gas prices used to calculate commitment cost caps and default energy bids and generated bids for resources connected to the SoCalGas or SDG&E systems. However, CAISO DMM recommends that these adders be modified downward should market conditions or detrimental market outcomes warrant that they be lowered.[21]

18. EDF requests that the Commission condition acceptance of the instant proposal on the requirement that CAISO complete its current Commitment Cost and Default Energy Bids Enhancements stakeholder process and file tariff revisions to enhance efficient price formation within six months from the date of the commencement of such process. EDF contends that the extension of the measures accepted in the June 1 Order is not a

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[18] CAISO DMM Comments at 12-17.

[19] *Id.* at 17; SoCal Edison Comments at 3.

[20] CAISO DMM Comments at 17 (citing CAISO Filing at 47). Specifically, CAISO DMM highlights the following two issues on which it places higher priority: (1) reforming the congestion revenue rights auction to eliminate losses to transmission ratepayers; and (2) implementing measures for updating gas prices used by CAISO in setting commitment cost bid caps and default energy bids in the day-ahead and real-time markets based on more current market information. *Id.*

[21] *Id.* at 3-9, 17.

substitute for addressing more fundamental price formation concerns in the CAISO market. EDF recognizes that CAISO has launched its new current Commitment Cost and Default Energy Bids Enhancements stakeholder process and encourages CAISO, as part of this process, to address market design inefficiencies that prevent generators from accurately reflecting sub-day fuel costs in CAISO market bids.[22]

19. EDF also asserts that the solutions presented in CAISO's Aliso Canyon stakeholder processes are too narrow and not sufficient for addressing the challenge presented by Aliso Canyon and argues that consideration of a broader set of solutions is warranted. EDF asserts that any future CAISO stakeholder process to consider broader, longer-term gas-electric coordination issues should be informed by the October 16, 2016 report by the Interagency Task Force on Natural Gas Storage Safety.[23] EDF argues that the findings of this report underscore the importance of fuel diversity and caution against the overreliance on a single tool, such as natural gas storage, to ensure that reliability is maintained. To promote resource diversity in CAISO's markets, EDF recommends that CAISO do more to promote participation of demand response in its wholesale markets. EDF also contends that CAISO needs to undertake the appropriate market design reforms to encourage pipelines to offer more flexible services to dynamically respond to the reliability needs of gas-fired generators.[24]

20. WPTF generally supports CAISO's proposal, but requests that the Commission direct CAISO to add more transparency to some of the proposed measures to avoid undermining the efficient outcome of CAISO's markets.[25] For instance, WPTF argues that CAISO should provide additional guidance in its tariff as to how it will notify market participants of its decision to deem a constrained transmission path uncompetitive or suspend convergence bidding as well as provide objective standards for taking such action. In addition, WPTF asserts that CAISO should be directed to modify its tariff to state that CAISO will notify market participants of any change in the natural gas adder

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[22] EDF Comments at 3-5.

[23] Ensuring Safe and Reliable Underground Natural Gas Storage, Final Report of the Interagency Task Force on Natural Gas Storage Safety (October 2016), http://energy.gov/downloads/report-ensuring-safe-and-reliable-underground-natural-gas-storage.

[24] EDF Comments at 5-8.

[25] WPTF Comments at 5.

for commitment costs, default and generated energy bids rather than issuing notifications only for increases in the adder, as specified in the proposed tariff language.[26]

21. Furthermore, WPTF requests that the Commission direct CAISO to analyze the effectiveness of the 125 percent natural gas adder over the course of the winter and submit an informational filing if the adder is no longer appropriate. WPTF also requests that CAISO be required to submit a report every six months analyzing the efficacy of the measures proposed in the instant filing, as well as provide an accounting of when the measures were invoked and their impact on the CAISO market.[27]

V. Discussion

A. Procedural Matters

22. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2016), the timely, unopposed motions serve to make the entities that filed them parties to this proceeding.

23. Pursuant to Rule 214(d) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214(d) (2016), the Commission will grant the late-filed motions to intervene given the intervenors' interest in the proceeding, the early stage of the proceeding, and the absence of undue prejudice or delay.

24. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2016), prohibits answer to a protest unless otherwise ordered by the decisional authority. We are not persuaded to accept the answer filed by CAISO and will, therefore, reject it.

B. Substantive Matters

25. We accept CAISO's proposed tariff revisions, subject to condition, as discussed in greater detail below.[28] We find good cause to grant waiver of the Commission's prior

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[26] *Id.* at 7.

[27] *Id.* at 8.

[28] The Commission can revise a proposal filed under section 205 of the FPA as long as the filing utility accepts the change. *See City of Winnfield v. FERC*, 744 F.2d 871, 875-77 (D.C. Cir. 1984). The filing utility is free to indicate that it is unwilling to accede to the Commission's conditions by withdrawing its filing.

notice requirements[29] to prevent any gap between the date when the tariff revisions accepted in the June 1 Order would otherwise expire and when the revisions accepted here will become effective. Thus, we find that making the instant revisions effective November 30, 2016 will ensure that CAISO continues to have the measures it claims that it needs to address risks associated with the limited operability of Aliso Canyon. We also note that the revisions accepted here will automatically expire on November 30, 2017, as proposed. However, CAISO's October 14, 2016, transmittal letter states that it filed two sets of tariff records – one set that contains the proposed changes that will go into effect on November 30, 2016 and another set that will return the tariff language to the previously effective version on November 30, 2017.[30] Our review of the tariff records indicates that CAISO did not submit the second set of tariff sheets that will go into effect on November 30, 2017; therefore, CAISO is directed to submit a compliance filing within 30 days of the date of this order to submit the second set of tariff sheets to become effective on November 30, 2017.

26. We find that maintaining in effect the measures accepted on an interim basis in the June 1 Order for an additional year is a just and reasonable approach to addressing the ongoing risks posed by the limited operability of Aliso Canyon. As CAISO reports, Aliso Canyon will likely not be operational during the bulk of 2017, which presents the risk of curtailments to gas-fired generators and, potentially, the interruption of service to load. We find that continuation of the interim measures for an additional year should improve scheduling coordinators' ability to manage their gas procurement and enhance their ability to recover gas procurement costs, while also providing CAISO with flexible tools to maintain reliability and avoid adverse market outcomes related to the limited operability of Aliso Canyon. We also find that CAISO's proposal to augment its after-the-fact cost recovery tariff provisions is just and reasonable as a backstop cost recovery measure given the uncertainty and potential price volatility introduced into the market by the limited operability of Aliso Canyon.

27. We decline to direct CAISO to set forth standards for when it may deem a constrained transmission path uncompetitive or suspend convergence bidding, as requested by WPTF. As the Commission explained in the June 1 Order, addressing a similar concern raised by commenters, "the impact of the natural gas constraint on the assessment of competitive paths can only be assessed based on actual system conditions once the constraint is in place."[31] We find that logic still holds true in the instant

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[29] *Central Hudson Gas & Elec. Corp.*, 60 FERC ¶ 61,106, *reh'g denied*, 61 FERC ¶ 61,089 (1992), and *Prior Notice and Filing Requirements Under Part II of the Federal Power Act*, 64 FERC ¶ 61,139, *clarified*, 65 FERC ¶ 61,081 (1993).

[30] CAISO Filing at 49.

[31] June 1 Order, 155 FERC ¶ 61,224 at P 52.

proceeding both for deeming a constrained transmission path uncompetitive and in determining whether to suspend convergence bidding if use of the maximum gas burn constraint is adversely affecting market efficiency. Thus, we find that requiring CAISO to develop objective standards for when and how these measures may be implemented is not feasible.

28. In addition, we will not require CAISO to submit a report every six months on the efficacy of the measures accepted herein. The measures accepted in today's order are essentially unchanged from the measures accepted in the June 1 Order, and the efficacy of those measures was discussed at the September 16 Technical Conference. Further, we expect CAISO to continue to monitor and evaluate the impact of these measures and to report on the operational and market impacts in the course of its regular stakeholder meetings and reports, as discussed in the June 1 Order.[32] Thus, we find that WPTF has not provided any compelling reason to require additional reports at this stage of the process.

29. However, we agree with commenters that these interim measures should not become substitutes for broader or longer-term market reforms that may be necessary. We find that the tariff revisions proposed here are appropriate for mitigating the risks resulting from the limited operability of Aliso Canyon, but expect CAISO to honor its commitment to consider other types of longer-term market enhancements, such as the issues raised by EDF and NV Energy, in its stakeholder processes. Similarly, we encourage CAISO to commence a stakeholder process to consider whether additional mitigation measures are needed for exceptional dispatches related to Aliso Canyon and to develop the parameters for any additional market power mitigation that may be warranted. We encourage CAISO to work with its stakeholders to establish appropriate priorities for considering any such reforms, but will not condition our acceptance of the revisions proposed here on CAISO filing specific revisions by a date certain because, as discussed above, we find that the revisions proposed here are just and reasonable for their intended purpose.

30. Finally, consistent with CAISO DMM's recommendation and the concern raised by WPTF, we expect CAISO to closely monitor the effectiveness of the gas adders and their impact on market behavior and to make any revisions to the gas adders, which could include downward, as well as upward adjustments, that may become warranted and to notify market participants accordingly. As CAISO's proposed section 39.7.1.1.1.3(d) specifies that CAISO will issue a market notice only if it *increases* the gas adders, we direct CAISO to submit a compliance filing to revise the section to require CAISO to notify market participants of any revision to the natural gas adders, as requested by WPTF.

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[32] *Id.* P 103.

The Commission orders:

(A) CAISO's proposed tariff revisions are hereby accepted, subject to condition, effective November 30, 2016, as discussed in the body of this order.

(B) CAISO's request for waiver of the Commission's prior notice requirements is hereby granted for good cause shown, as discussed in the body of this order.

(C) CAISO is hereby directed to submit a compliance filing within 30 days of the date of this order, as discussed in the body of this order.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

Document Content(s)