DOCKETED	
Docket Number:	85-AFC-03C
Project Title:	Compliance - Application for Certification for Midway-Sunset Cogeneration Project
TN #:	240195
Document Title:	MSCC Statement of Approval of Post Certification Change
Description:	Midway Sunset Co-Gen Project (85-AFC-03C)
Filer:	susan fleming
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	11/1/2021 3:14:43 PM
Docketed Date:	11/1/2021

STATEMENT OF STAFF APPROVAL OF POST CERTIFICATION CHANGE

MIDWAY SUNSET COGENERATION PROJECT (85-AFC-03C)

On May 6, 2021, the Midway Sunset Cogeneration Company (project owner) filed a petition for a post-certification change (TN 237725) at the Midway Sunset Cogeneration Project (MSCP). MSCP is a 225-megawatt cogeneration facility that was certified by the California Energy Commission (CEC) on May 14, 1987 and began commercial operation on May 1, 1989. MSCP is located at 3466 Crocker Springs Rd in Fellows, Kern County.

DESCRIPTION OF PROPOSED CHANGE

The project owner is seeking approval to replace the Unit C combustion system with a Dry Low oxides of nitrogen (NOx) 1+Turndown Enhance (DLN1+TE) combustion system. The upgrade to the DLN1+TE combustion system allows the combustion turbine generators to utilize the bypass stacks (generate electricity without producing steam) while staying within the NOx emission limit.

The CEC previously approved a Post-Certification Amendment (TN 202346) to upgrade Units A and B combustion systems to the DLN1+TE combustion system.

The petition is available on the CEC's project webpage at https://www.energy.ca.gov/powerplant/cogeneration/midway-sunset-cogeneration-project.

CEC STAFF REVIEW AND CONCLUSIONS

Title 20, California Code of Regulations, section 1769 states that a project owner shall petition the CEC for approval of any change it proposes to the project design, operation, or performance requirements.

CEC technical staff (staff) reviewed the petition for potential environmental effects and consistency with applicable laws, ordinances, regulations, and standards (LORS). Staff's conclusions for all technical and environmental areas are summarized in **Table 1**.

Staff has determined that the proposed project change would have no impacts on the environment, or cause the project to not comply with LORS, in the following technical or environmental areas: Biological Resources, Cultural Resources, Efficiency, Facility Design, Geological Resources, Hazardous Materials Management, Land Use, Noise and Vibration, Paleontological Resources, Public Health, Reliability, Socioecomonics, Soil and Water Resources, Traffic and Transportation, Transmission Line Safety and Nuisance,

Transmission System Engineering, Visual Resources, Waste Management, and Worker Safety and Fire Protection.

For the technical area of Public Health, staff has determined the project would continue to comply with applicable LORS and the project change would not result in any significant adverse environmental impacts.

For the technical area of Air Quality, staff has determined the project would continue to comply with applicable LORS and would not result in any significant adverse environmental impacts with the proposed modifications to Air Quality conditions of certification.

Staff's Air Quality and Public Health analysis follows at the end of this document.

Staff's conclusions for each technical or environmental area are summarized in the following table.

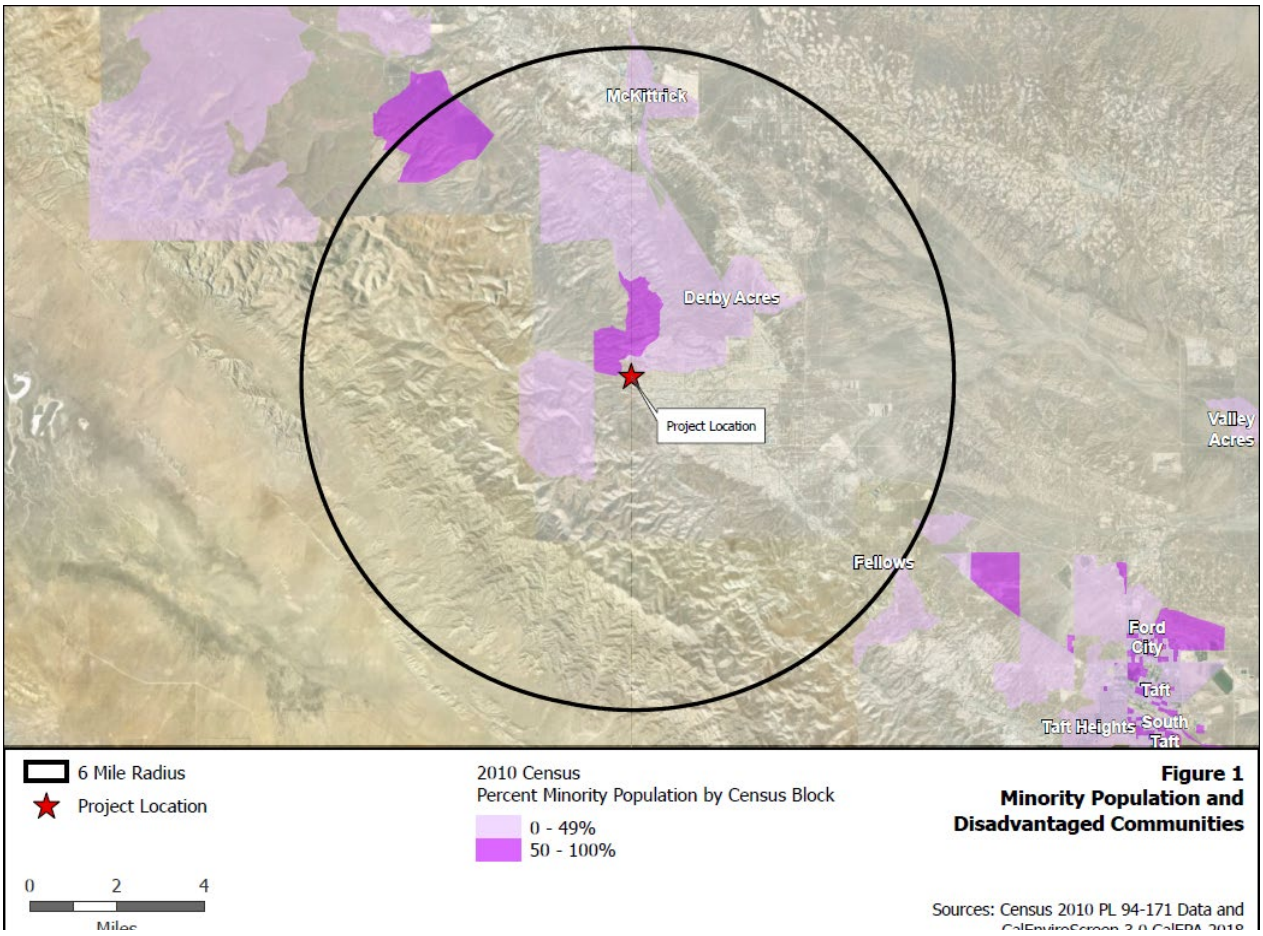
Table 1
Summary of Conclusions for all Technical and Environmental Areas

Technical Areas Reviewed	CEQA				Complies with applicable LORS	Revised or New Conditions of Certification requested or recommended
	Potentially Significant Impact	Less Than Significant Impact with Mitigation	Less Than Significant Impact	No Impact		
Air Quality		X			X	X
Biological Resources				X	X	
Cultural Resources				X	X	
Efficiency				X	X	
Facility Design				X	X	
Geological and Paleontological Resources				X	X	
Hazardous Materials Management				X	X	
Land Use				X	X	
Noise and Vibration				X	X	
Public Health			X		X	
Reliability				X	X	
Socioeconomics				X	X	
Soil and Water Resources				X	X	
Traffic and Transportation				X	X	
Transmission Line Safety and Nuisance				X	X	
Transmission System Engineering				X	X	
Visual Resources				X	X	
Waste Management				X	X	
Worker Safety and Fire Protection				X	X	

Environmental justice

Environmental Justice – Figure 1 shows 2010 census blocks in the six-mile radius of the MSCP site with a minority population greater than or equal to 50 percent. The population in these census blocks represents an environmental justice (EJ) population based on race and ethnicity as defined in the United States Environmental Protection Agency's *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*. Staff conservatively obtains demographic data within a six-mile radius around a project site based on the parameters for dispersion modeling used in staff's air quality analysis. Air quality impacts are generally the type of project impacts that extend the furthest from a project site. Beyond a six-mile radius, air emissions have either settled out of the air column or mixed with surrounding air to the extent the potential impacts are less than significant. The area of potential impacts would not extend this far from the project site for most other technical areas included in staff's EJ analysis.

ENVIRONMENTAL JUSTICE – FIGURE 1



Based on California Department of Education data in the **Environmental Justice – Table 1**, staff concluded that the percentage of those living in the Midway Elementary, McKittrick Elementary, and Atascadero Unified school districts (in a six-mile radius of the project site) and enrolled in the free or reduced price meal program is not larger than those in the reference geography, and thus are not considered an EJ population based on low income as defined in *Guidance on Considering Environmental Justice During the Development of Regulatory Actions*.

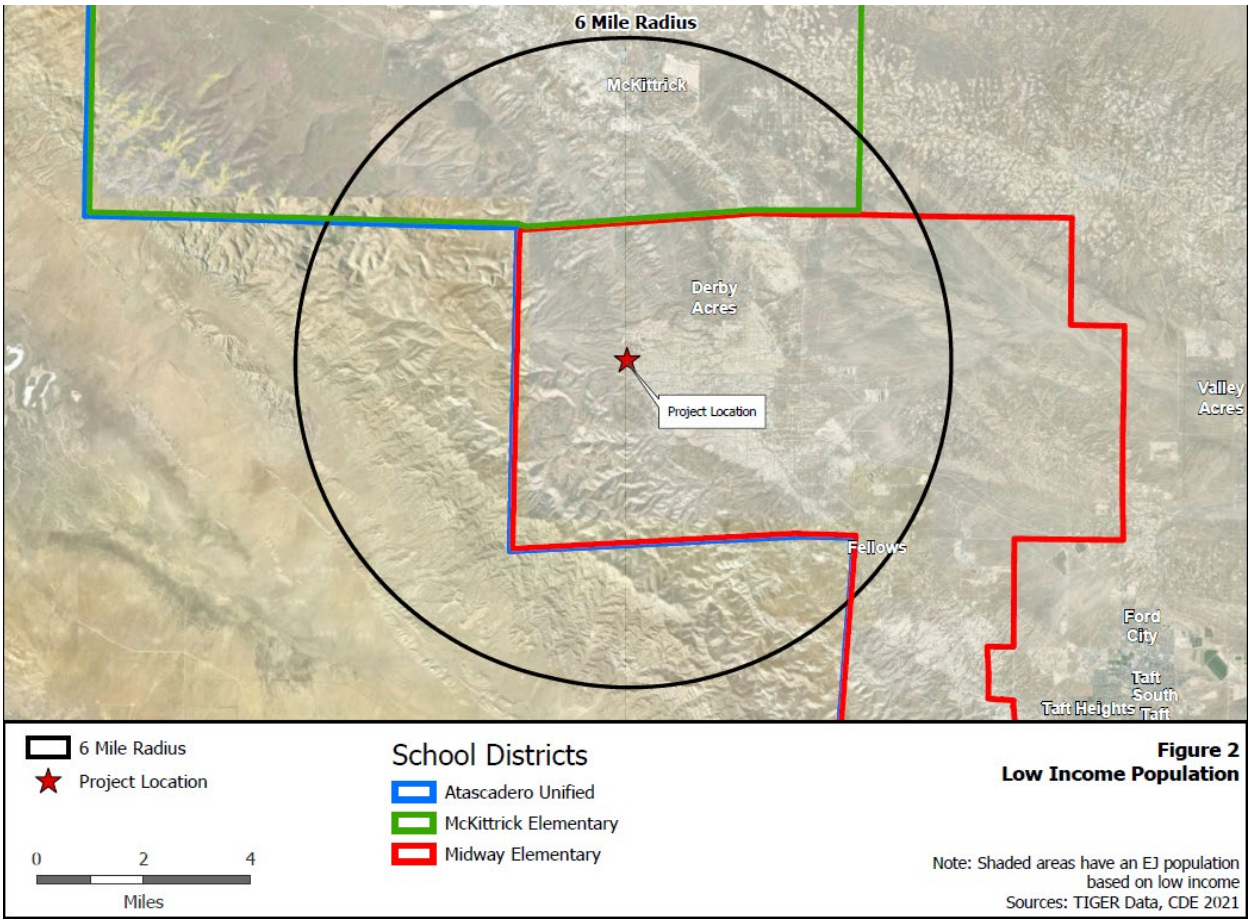
Environmental Justice – Table 1
Low Income Data within the Project Area

Kern County School District in Six-Mile Radius	**Enrollment Used for Meals**	**Free or Reduced-Price Meals**	
Midway Elementary	72	44	61.1%
McKittrick Elementary	67	26	38.8%
Reference Geography			
Kern County	195,310	139,874	71.6%
San Luis Obispo School District in Six-Mile Radius	**Enrollment Used for Meals**	**Free or Reduced-Price Meals**	
Atascadero Unified	4,397	1,390	31.6%
Reference Geography			
San Luis Obispo County	33,045	14,907	45.1%

Source: CDE 2021. California Department of Education, DataQuest, Free or Reduced-Price Meals, District level data for the year 2020-2021, <http://dq.cde.ca.gov/dataquest/>.

Environmental Justice – Figure 2 shows where the boundaries of the school districts are in relation to the six-mile radius around the MSCP site.

ENVIRONMENTAL JUSTICE – FIGURE 2



The following technical areas (if affected) consider impacts to EJ populations: Air Quality, Cultural Resources (indigenous people), Hazardous Materials Management, Land Use, Noise and Vibration, Public Health, Socioeconomics, Soil and Water resources, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, Waste Management, and Worker Safety and Fire Protection.

Environmental Justice Conclusions

For the technical areas affected by the proposed project changes, Air Quality and Public Health, staff concludes that impacts would be less than significant, and thus would be less than significant on the EJ population represented in **Environmental Justice – Figure 1**, **Figure 2**, and **Table 1**. Air quality, public health, and greenhouse gas impacts from the evaluated changes would be less than significant, including impacts to environmental justice populations. Therefore, there are no air quality, public health, or greenhouse gas environmental justice issues related to the evaluated facility modifications and no minority or low-income populations would be significantly or adversely impacted.

ENERGY COMMISSION STAFF DETERMINATION

Staff has determined for this petition that approval by the full Commission is not required and the proposed changes meet the criteria for staff approval because:

Pursuant to section 1769(a)(3)(A)

i. there is no possibility that the change may have a significant impact on the environment, or the project is exempt from the California Environmental Quality Act;

ii. the change would not cause the project to fail to comply with any applicable laws, ordinances, regulations, or standards; and

Pursuant to section 1769(a)(3)(B)

ii. no daily, quarterly, annual or other emission limit will be increased as a result of the change.

Staff also concludes that the proposed changes do not meet the criteria requiring production of subsequent or supplemental review as specified in Title 14, California Code of Regulations, section 15162(a).

WRITTEN COMMENTS

This Statement of Staff Approval of the proposed project changes has been filed in the docket for this project. Pursuant to section 1769(a)(3)(C), any person may file an objection to staff's determination within 14 days of the filing of this statement on the grounds that the project change does not meet the criteria set forth in sections 1769(a)(3)(A). Absent any objections as specified in 1769(a)(3)(C), this petition will be approved 14 days after this statement is filed.

Written comments or objections to staff's determination may be submitted using the CEC's e-Commenting feature, as follows: Go to the CEC's project webpage and click on either the "Comment on this Proceeding," or "Submit e-Comment" link. When your comments are filed, you will receive an email with a link to them.

Written comments or objections may also be mailed to:

California Energy Commission
Docket Unit, MS-4
Docket No. 85-AFC-03C
715 P Street
Sacramento, CA 95814-5512

All comments and materials filed with the Dockets Unit will be added to the facility Docket Log and be publicly accessible on the CEC's project webpage.

If you have questions about this notice, please contact Mary Dyas, Office of Compliance Monitoring and Enforcement, Compliance Project Manager, at (916) 628-5418, or via email at mary.dyas@energy.ca.gov.

For information on public participation, please contact the Public Advisor, at (916) 654-4489 or (800) 822-6228 (toll-free in California) or send your email to publicadvisor@energy.ca.gov.

News media inquiries should be directed to the CEC Media Office at (916) 654-4989, or by email at mediaoffice@energy.ca.gov.

List Serve: MidwaySunset

Midway Sunset Cogeneration Company (85-AFC-03C)
Post Certification Amendment – Unit C Upgrade

AIR QUALITY, PUBLIC HEALTH, AND GREENHOUSE GASES

Wenjun Qian, Ph.D., P.E.

INTRODUCTION AND SUMMARY

The MSCP was originally licensed in May 1987 as a cogeneration facility comprised of three GE Frame 7E combustion turbine generators (CTGs), three heat recovery steam generators (HRSGs) and three bypass valves and stacks. The CTGs produce electricity for sale through the California Independent System Operator (California ISO). The exhaust heat from each CTG was designed to be routed through each unit's HRSG producing steam for use in the adjoining oil field for thermally enhanced oil recovery.

Due to declining steam demand, the project owner requested, and CEC approved the upgrade of Units A and B's dry low NOx (DLN) technology from DLN9 combustion system to DLN1+Turndown Enhance (DLN1+TE) combustion system in 2014. The upgrade allows Unit A and Unit B to use the bypass stacks (generate electricity without producing steam) and operate without the use of selective catalytic reduction (SCR) while meeting the permitted 5 parts per million (ppm) of nitrogen oxides (NOx) emission limit (CEC 2014). Unit C was not converted to DLN1+TE and continued to supply the reduced steam demand using the HRSG/SCR grid arrangement. Unit C currently meets the 5 ppm NOx emission limit with the use of the DLN9 combustion system (NOx emission not to exceed 9 ppm) and the ammonia injected SCR grid that reduces the NOx emissions to 5 ppm or less.

The steam demand continues to decline and MSCP no longer has a steam sales contract to produce steam as a cogeneration facility. However, the California ISO has designated MSCP as a Reliability Must-Run (RMR) facility. Since Unit C has not gone through upgrade to operate in simple cycle mode while meeting the 5 ppm NOx limit, MSCP applied for and received a regular variance from the San Joaquin Valley Air Pollution Control District (SJVAPCD or district), which is effective from March 11, 2021, through March 9, 2022. MSCP also requested and received permission from CEC and the district to remove any requirement that MSCP must operate as a cogeneration facility.

On May 6, 2021, the project owner submitted a Post-Certification Amendment petition to the CEC to upgrade Unit C combustion system to DLN1+TE. The project owner also requested to limit the annual fuel usage of Unit C (MSCP 2021).

The project owner also filed an application for an Authority to Construct (ATC) to SJVAPCD on April 15, 2021. The SJVAPCD completed an analysis with draft ATCs for the Unit C upgrade as well as permit condition changes for Units A and B on October 6, 2021 (CEC 2021d). Staff reviewed the Post-Certification Amendment petition and the associated SJVAPCD analysis and draft ATCs. The proposed changes would have no

effect on any permitted criteria pollutant emissions, toxic air contaminants emissions, or greenhouse gas emissions. The SJVAPCD draft ATCs include administrative changes to permit conditions. CEC staff proposes to add Conditions of Certification **AQ-55** and **AQ-56**, delete obsolete Conditions of Certification **AQ-26**, **AQ-31**, and **AQ-36**, and modify Condition of Certification **AQ-18** to match the SJVAPCD draft ATC conditions.

The modified project would comply with all laws, ordinances, regulations, and standards (LORS). Air quality, public health, and greenhouse gas impacts from the evaluated changes would be less than significant, including impacts to environmental justice populations. Therefore, there are no air quality, public health, or greenhouse gas environmental justice issues related to the evaluated facility modifications and no minority or low-income populations would be significantly or adversely impacted.

LAWS, ORDINANCES, REGULATIONS, AND STANDARDS COMPLIANCE

CEC staff reviewed the petition and the SJVAPCD evaluation for consistency with all federal, state, and SJVAPCD LORS. The SJVAPCD issued draft ATCs on October 6, 2021, demonstrating that the proposed changes would comply with all applicable LORS. After addressing all comments made during the 30-day public notice and the 45-day United States Environmental Protection Agency (U.S. EPA) comment periods, the district intends to issue the ATCs with Certificates of Conformity. Prior to operating with modifications authorized by the ATCs, the owner is required to submit an application to the district to modify the Title V permit as an administrative amendment (CEC 2021d). **Air Quality Table 1** includes a summary of the air quality LORS relevant to the proposed changes. **Air Quality Table 1** in this analysis is not intended to be comprehensive of all LORS applicable to the facility. The conditions of certification in the Decision and amendments thereafter ensure that the facility would remain in compliance with all LORS.

Air Quality Table 1
Laws, Ordinances, Regulations, and Standards (LORS)

Applicable LORS	Description	Compliance
State	**California Air Resources Board**	
California Health & Safety Code 42301.6 (School Notice)	It requires public notification prior to approving an application for permit to construct or modify a source that emits hazardous air emissions if the source is located within 1,000 feet of the outer boundary of a school.	The district has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.
Local	**San Joaquin Valley Air Pollution Control District**	
Regulation II – Permits Rule 2201 New and Modified	This rule applies to all new stationary sources and all modifications to existing stationary sources which are subject to the district permit requirements and	This source is an existing Major Source for all pollutants and will remain a Major Source for all pollutants. The proposed modifications will not trigger Federal Major Modification or New

Applicable LORS	Description	Compliance
Stationary Source Review Rule	after construction emit or may emit one or more affected pollutant.	Major Source requirements. The BACT and offsets requirements of this rule do not apply. However, public noticing is required because of the Title V significant modification as discussed below.
Regulation II – Permits Rule 2410 – Prevention of Significant Deterioration (PSD)	This rule applies to any pollutant regulated under the Clean Air Act, except those for which the district has been classified nonattainment.	The proposed modifications will not result in a new PSD major source or PSD major modification and no further discussion is required.
Regulation II – Permits Rule 2520 Federally Mandated Operating Permits	This rule provides administrative mechanism for permit issuance as well as compliance requirements associated with the Federally Mandated Operating Permits.	The monitoring and recordkeeping requirement for SCR and oxidation inlet temperature will not be required when the SCR is bypassed, which is considered a relaxation in monitoring and recordkeeping conditions. As a result, the proposed modifications constitute a Significant Modification to the Title V Permit. The facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to the district to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected.
Regulation IV – Prohibitions Rule 4001 New Source Performance Standards (NSPS)	This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60.	No newly constructed or reconstructed units are proposed in this project, nor are the units being modified (as defined in 40 CFR Part 60, Subpart A, Section 14). The proposed modification involves the retrofit of the gas turbine with an equivalent size burner that will allow the unit to alternatively comply with SJVAPCD Rule 4703; therefore, the requirements of 40 CFR Part 60 do not apply to the unit.
Regulation IV – Prohibitions Rule 4101 Visible Emissions	This rule states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity).	Since the turbines are fired solely on natural gas, visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. Also, based on past inspections of the facility, continued compliance is expected.
Regulation IV – Prohibitions Rule 4102 Nuisance	This rule prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public.	Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, continued compliance with this rule is expected.

Applicable LORS	Description	Compliance
Regulation IV – Prohibitions Rule 4201 Particulate Matter Concentration	Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.	The project is currently in compliance with the rule. The proposed modification will not alter the particulate matter emissions. Therefore, continued compliance with this rule is expected.
Regulation IV – Prohibitions Rule 4703 Stationary Gas Turbines	The provisions of this rule apply to all stationary gas turbine systems, which are subject to district permitting requirements, and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour, except as provided in Section 4.0.	Unit C currently meets the 5 ppm NOx emission limit with the use of the DLN9 combustion system and SCR. The HRSG and SCR can be bypassed with the proposed upgrade to DLN1+TE combustion system, while achieving the 5 ppm NOx emission limit. The 5 ppm NOx emission limit is included in existing district permit conditions (ATC condition 29 for Unit C and ATC condition 23 for Units A and B), but not included in the CEC conditions of certification. Rule 4703 also requires the GE Frame 7 turbines to meet 25 ppm CO. These units have met and will continue to meet the 25 ppm CO emission limit. The 25 ppm CO emission limit is also included in the same existing district permit conditions that include the NOx emission limit. Staff proposes to add a new Condition of Certification **AQ-56** to match the existing 5 ppm NOx emission limit and 25 ppm CO emission limit in the district permit.
SJVPACD Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources	This policy specifies that for an increase in emissions associated with a proposed new source or modification, the district perform an analysis to determine the possible impact to the nearest resident or worksite.	There would be no increases in emissions associated with the proposed modifications, therefore a health risk assessment is not necessary, and no further risk analysis is required.

ANALYSIS

Emissions and Impacts

MSCP was originally licensed as a cogeneration facility, which produced both electricity and steam. The HRSGs require flowing water when operating the CTGs, otherwise the heat from the CTGs exhaust would damage the HRSG tubes. However, MSCP no longer has a steam sales contract to produce steam as a cogeneration facility. But the California Independent System Operator (California ISO) has designated MSCP as a RMR facility. Therefore, MSCP needs to operate in simple cycle mode and bypass the HRSGs to produce electricity requested by the California ISO.

The direct NOx emission from the DLN9 combustion system currently used by Unit C does not exceed 9 ppm. The SCR systems are installed in the HRSGs to reduce the NOx emissions to 5 ppm. Unit C cannot operate and remain in compliance with the 5 ppm NOx emission limit unless it is producing steam (or water is flowing through the HRSGs). Unit A and Unit B were previously upgraded to DLN1+TE combustion system to bypass the HRSG and SCR and still meet the 5 ppm NOx emission limit. In the current petition, the project owner proposes the same upgrade to the Unit C combustion system.

With the upgrade to DLN1+TE combustion system, all the units will continue to meet the 5 ppm NOx emission limit specified in existing district permit conditions (ATC condition 29 for Unit C and ATC condition 23 for Units A and B). These existing district permit conditions also require that the CO emissions from these units do not exceed 25 ppm. However, the CEC conditions of certification do not include these limits. Staff proposes to add a new Condition of Certification **AQ-56** to match the existing 5 ppm NOx emission limit and 25 ppm CO emission limit in the district permit.

With the upgrade to DLN1+TE combustion system, MSCP would have no reason to utilize the SCRs, which includes ammonia injection. There is also a financial incentive to avoid ammonia injection to the extent feasible. However, MSCP's approved Unit A and B Post Certification Amendment included leaving the SCR grid and ammonia injection system intact for use if either unit is required as a cogeneration unit and the SCR is needed to meet emissions limits. When the SCR system is used, MSCP will meet all the SCR conditions, including the calculation and recording of ammonia slip. The project owner proposes to leave the SCR grid and ammonia injection system intact for use for Unit C as well (CEC 2021a).

As part of the DLN1+TE combustion systems conversion, the project owner would install a continuous emissions monitor (CEM) grid with testing and sampling ports upstream of the bypass stack. The proper placement of the ports would be coordinated with MSCP's testing consultants and approved by the district as required by existing Condition of Certification **AQ-5** and SJVAPCD ATC condition number 83 for Unit C. The existing SCR cogeneration stack sample system will remain in place and be certified, as required, in preparation of the unlikely event that ammonia injection is required during a cogeneration operation.

The upgrade to Unit C's combustion system will require tuning and recommissioning. The project owner has completed the upgrading, tuning, and recommissioning of combustion turbine generators twice before (Units A and B). The project owner plans to use the same approach for Unit C and expects Unit C to respond similarly. Emissions during tuning or recommissioning are not limited by any condition of certification. The project owner petitioned and was granted a Short Variance from SJVAPCD for the tuning and recommissioning of the upgraded combustion systems for Units A and B (CEC 2021b). A similar process is expected for the Unit C upgrade. The project owner showed that during the total of 26 hours and 18 minutes of recommissioning that

occurred on five days for Unit A, the worst-case daily NOx emissions were 423.14 pounds (lbs). The owner's variance report states that this was in excess of the daily limit of 410 lbs (CEC 2021c). However, there are no daily emissions limits in the district permit or CEC conditions of certification. It is unclear how the 410 lbs per day limit was calculated. Based on the hourly NOx emission limit of 17.66 pounds per hour (lbs/hr) for normal operations in Condition of Certification **AQ-18**, the daily emission of the unit would be 423.84 (=17.66×24) lbs assuming it operates for 24 hours continuously. Therefore, the worst-case daily NOx emissions during recommissioning of Unit A did not exceed the daily NOx emissions even when operating at 24 hours a day continuously. No other emissions exceeded permitted limits (CEC 2021a, CEC 2021c). Staff expects similar tuning and recommissioning for Unit C would be short term and would not result in significant impacts.

There would be no effect on any permitted criteria pollutant emissions, toxic air contaminants emissions, or greenhouse gas emissions, except for the benefit of eliminating ammonia emissions when operating with the DLN1+TE combustion systems. When operating in simple cycle mode, the units would operate fewer hours than base loaded cogeneration units and subsequent total emissions would be correspondingly less. The project owner also proposes to limit the annual fuel usage of Unit C to 1,617 million standard cubic feet (mmscf), which will result in a proportionate reduction in emissions.

Proposed Changes in Conditions of Certification

Staff proposes the following changes in conditions of certification to match the SJVAPCD ATC conditions. The proposed changes in conditions of certification are considered administrative and would not increase the permitted emission limits.

As mentioned above, MSCP proposes to limit the annual fuel usage of Unit C to 1,617 mmscf. MSCP proposes to add this fuel usage limit in existing Condition of Certification **AQ-27**. However, Condition of Certification **AQ-27** is equivalent to district ATC condition 25 for Unit C. And the district added a new ATC condition 28 to limit the annual fuel usage of Unit C to 1,617 mmscf. Therefore, staff also proposes to add this new ATC condition as a new Condition of Certification **AQ-55**, instead of adding the requirement in the existing Condition of Certification **AQ-27**.

As also mentioned above, staff proposes to add a new Condition of Certification **AQ-56** to match the existing 5 ppm NOx emission limit and 25 ppm CO emission limit in the district permit.

The owner requested and the district deleted the conditions and referral to the steam generators that have been removed from service and for which permits have been cancelled. To be consistent, staff proposes to delete Conditions of Certification **AQ-26**, **AQ-31** and **AQ-36**.

After the Unit C upgrade, the SCR and ammonia injection system would be bypassed most of the time. Therefore, the original requirement of annual testing for ammonia slip would not apply. The district changed the timing of the ammonia testing (in ATC condition 33 for Unit C) to be within 60 days of any use of the SCR system, unless compliance with emissions limitations has been demonstrated with the SCR system in operation within the preceding 12-month period. Staff proposes the same changes in part c of the verification for Condition of Certification **AQ-18**. Staff also proposes to change part a of the verification for Condition of Certification **AQ-18** to match the current district requirement of timing for source test notification and test plan submittal (as required in ATC condition 34 for Unit C). In addition, staff proposes to delete part b of the verification for Condition of Certification **AQ-18** since it only applied when the facility began commercial operation.

Conditions of Certification **AQ-49**, **AQ-52**, and **AQ-53** were modified previously when Units A and B were upgraded to clarify that these conditions would only apply when the SCR system is being operated. These conditions would accommodate the upgrade of Unit C's combustion system to DLN1+TE. Therefore, no further modification to these conditions is needed.

There would be no change in permitted emission limits at MSCP. With the proposed addition of Conditions of Certification **AQ-55** and **AQ-56**, deletion of Conditions of Certification **AQ-26**, **AQ-31**, and **AQ-36**, and modification to Condition of Certification **AQ-18**, the project would continue to comply with all applicable LORS.

AMENDED CONDITIONS OF CERTIFICATION

The modifications to the Air Quality Conditions of Certification are included below. **Bold underline** indicates new language. ~~Strikethrough~~ indicates deleted language.

AQ-18 Pollutant emissions from the Stack of each combustion turbine shall not exceed the following limits (in pounds mass per hour, lbm/hr) except during times of start-up or shutdown (as described in Condition of Certification **AQ-44**):

Particulate	9.98	lbm/hr
Sulfur Compounds	0.92	lbm/hr as SO2
Oxides of Nitrogen	17.66	lbm/hr as NO2
Hydrocarbons (nonmethane)	9.00	lbm/hr
Carbon Monoxide	54.91	lbm/hr

Verification: To demonstrate compliance with the emission limits provided the owner/operator shall provide initial and on-going performance tests as follows:

a. **Source testing shall be conducted using the methods and procedures approved by the District. The District and the Energy Commission must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing.** ~~At least 60 days before commercial operation date of the power cogeneration facility, or 30 days before the permit to operate anniversary date, the owners shall submit to the SJVUAPCD, ARB and the Energy Commission a detailed performance test plan for the power plant's AECS. The performance test will be funded by the owners and conducted by a third party approved by the SJVUAPCD and ARB. The SJVUAPCD will notify the owners and the Energy Commission of its approval, disapproval, or proposed modifications to the plan within 30 days of receipt of the plan. The owners shall incorporate the SJVUAPCD and the Commission's comments or modifications to the plan.~~

b. **[Deleted]** ~~The owners shall notify the SJVUAPCD and the Energy Commission, within five days, before the facility begins commercial operation. The owners shall also notify the SJVUAPCD one week prior to the beginning of testing to allow the SJVUAPCD to observe and/or conduct concurrent sampling.~~

c. Compliance with **NOx and CO** emission limits shall be demonstrated by a ~~SJVUAPCD~~ **District-**witnessed sample collection ~~performed~~ by an independent testing laboratory **on an annual basis** ~~within 60 days after startup of this equipment and annually within 60 days prior to permit anniversary date~~. **Compliance with NOx, CO and ammonia emissions limits shall be demonstrated by District-witnessed sample collection by independent testing laboratory within 60 days of any use of the SCR system, unless compliance with emissions limitations has been demonstrated with the SCR system in operation within the preceding 12 month period.**

d. The owners shall submit the results of the compliance test within 60 days of completion of the tests. The owners shall submit to the SJVUAPCD, its application for a Permit to Operate via registered mail. The owners shall submit a copy of the application to the Energy Commission within 10 days of its submittal to the SJVUAPCD. The SJVUAPCD shall approve or disapprove the application as prescribed in the SJVUAPCD rules.

e. The owners shall include all Excursions in the Quarterly Emissions Report as a separate section (such as "breakdowns" or "excess emissions") as well as including them in all daily and annual emission calculations.

AQ-26 **[Deleted]** ~~a. Of the original 52 steam generators and heaters used for mitigation, four steam generators and heaters (Permit Numbers: S-1135-115, 119, 122 and 123) shall be shutdown while all three turbines at Midway-Sunset are in operation. The remaining forty six steam generators and heaters (Permit numbers for original Oryx equipment under the now non-existent Kern County Air Pollution Control District: 4014002, '006, '013, '019, '020, '036, '049, '051, '052, '054, '055, '058, '059, '067, '068, '069,~~

~~'070, '072, '080, '081, '087, '093, '094, '097, '131, '137, and '142) (Permit numbers for SJVUAPCD: S-1135-98, '99, '100, '101, '102, '103, '104, '105, '106, '107, '108, '109, '110, '111, '112, '113, '114, '117 and '121) have been surrendered to the SJVUAPCD and are no longer in operation.~~

~~b. When one or more of the three turbines at the Midway-Sunset Cogeneration facility is shutdown, then any combination of the following 4 field steam generators may be operated to produce steam in its place (field steam generator permit numbers:S-1135-115, '119, '122 and '123).~~

~~**Verification**: The project owner shall maintain operational logs for the above steam generators and shall make these logs available for inspection by the SJVUAPCD, ARB, and the Energy Commission. These logs shall be included in the quarterly compliance reports submitted to the Energy Commission. The SJVUAPCD and Energy Commission shall receive immediate written notification of planned operational status changes of the offset sources listed above.~~

AQ-31 [Deleted] ~~The project owner shall not bank or use in calculating the net accumulated emissions change for the remainder of the stationary source, any reductions, on either specific limiting condition basis or actual emissions basis, from any steam generators and heaters which have been shutdown pursuant to Requirement **AQ-26**.~~

~~**Verification**:~~

~~a. The project owner shall submit to the SJVUAPCD and the Energy Commission a certificate of dedication for the emission reductions realized from the shutdown of fifty-two steam generators and boilers specified in operating conditions gg of the final DOC dated January 13, 1987 (Energy Commission Condition of Certification Requirement **AQ-26**) which exceed the actual emission reductions from the shutdown, as calculated pursuant to the methodology used by the CARB in its review of the project owner AFC amendment dated October 6, 1986. The project owner shall be responsible for submitting any and all data and information required by the SJVUAPCD to validate the dedication.~~

~~b. The certificate of dedication shall include written conditions of use which state that the excess emission reduction credits which reflect the difference between calculating the emission reductions achieved using permitted emissions and calculating the reductions using actual emissions are, for the life of the project, dedicated to the project and/or the fifty-two steam generator sand boilers specified in operating conditions gg (Energy Commission Condition of Certification Requirement **AQ-26**) of the final DOC. Appropriate modifications shall be included on the permits of the fifty-two affected steam generators and boilers to ensure that the ERCs are surplus, permanent, quantifiable, and enforceable by the SJVUAPCD.~~

~~c. The project owner shall not take any action to invalidate or otherwise inactivate the certificate of dedication as conditioned so long as the project retains a valid permit to operate.~~

AQ-36 [Deleted] ~~The Steam Pit Rock Muffler unit shall not be used on any day when any of the 52 steam generators and heater treaters, curtailed to provide cogeneration project offsets, are operated unless these units are operated in accordance with the project's SJVUAPCD approved Emissions Offset Compliance Plan.~~

~~**Verification**: The project owner shall monitor per approved steam recipient operation of the 52 steam generators and heater treaters (Condition **AQ-26**) to ensure that only the equipment listed in the Plan as allowable for a one turbine outage, two turbine outage or three turbine outage is used during the type of outage.~~

AQ-55 Annual fuel consumption of Unit C shall not exceed 1,617 MMscf on a twelve-consecutive month rolling basis.

Verification: The project owner shall include records of Unit C fuel use as part of the quarterly emission report required by Condition of Certification AQ-21 and annual compliance report.

AQ-56 The project owner shall comply with the following emission limit at all times except during periods of start-up, shutdown, or reduced load: NOx (as NO_2): 5.0 ppmv, and CO: 25 ppmv, dry @ 15% O_2 corrected to ISO conditions.

Verification: The project owner shall demonstrate compliance with the condition as part of the quarterly emission report required by Condition of Certification AQ-21.

REFERENCES

CEC 2014 – California Energy Commission (CEC). Order Approving Petition to Upgrade Units A&B to DLN1+TE (TN 202346), Midway Sunset Cogen (85-AFC-03C), dated May 19, 2014.

CEC 2021a – California Energy Commission (CEC). Midway Sunset Cogen – Email MSCP Responses to Questions asked by AQ staff (TN 240049), docketed October 12, 2021.

CEC 2021b – California Energy Commission (CEC). San Joaquin Valley Air Pollution Control District – Order Granting Short Variance (TN 240050), dated March 11, 2015, docketed October 12, 2021.

CEC 2021c – California Energy Commission (CEC). Midway Sunset Cogen Letter to San Joaquin Valley Air Pollution Control District re Variance S-15-0SS Summary Report (TN 240051), dated May 11, 2015, docketed October 12, 2021.

CEC 2021d – California Energy Commission (CEC). Midway Sunset Cogen - San Joaquin Valley Air Pollution Control District Notice of Preliminary Decision - Authority to Construct (TN 240052), dated October 6, 2021, docketed October 12, 2021.

MSCP 2021 – Midway Sunset Cogeneration Company (MSCP). Midway Sunset Letter – Post Certification Amendment – CC – 2183 with attachments (TN 237725-1 through TN 237725-5), dated May 6, 2021.