

DOCKETED

| | |
|-------------------------|---|
| Docket Number: | 85-AFC-03C |
| Project Title: | Compliance - Application for Certification for Midway-Sunset Cogeneration Project |
| TN #: | 240049 |
| Document Title: | Midway Sunset Cogen - Email Responses to Questions |
| Description: | Midway Sunset Cogen - Email MSCC Responses to Questions asked by AQ staff |
| Filer: | Mary Dyas |
| Organization: | California Energy Commission |
| Submitter Role: | Commission Staff |
| Submission Date: | 10/12/2021 11:34:19 AM |
| Docketed Date: | 10/12/2021 |

From: [Greg Jans](#)
To: Qian, Wenjun@Energy; [Ray Smith](#)
Cc: Hughes, Joseph@Energy; Dyas, Mary@Energy; [Stephanie Urias](#)
Subject: RE: Midway Sunset Unit C Post Certification Amendment For DLN1+TE
Date: Friday, June 25, 2021 11:52:33 AM
Attachments: [image001.png](#)
[MSCC Unit C PTO S-1135-226-27.pdf](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Wenjun,

Please forgive the delay in my response.

Please see my answers to your questions in black bold font below.

Please let me know should you have more questions. Other than that have a great weekend.

Thanks,

Greg

From: Qian, Wenjun@Energy [mailto:Wenjun.Qian@energy.ca.gov]
Sent: Wednesday, June 23, 2021 4:51 PM
To: Greg Jans; Ray Smith
Cc: Hughes, Joseph@Energy; Dyas, Mary@Energy; Stephanie Urias
Subject: RE: Midway Sunset Unit C Post Certification Amendment For DLN1+TE

Greg,

Thank you for responding to my questions. When I read the petition in more detail and try to write my analysis, I have more questions. A lot of the statements apply to Units A and B. I suppose they would also apply to Unit C. But I would like to confirm with you. For example, will the SCR grid, ammonia injection system, and the existing SCR stack sample system for Unit C remain in place just in case ammonia injection is required during a cogeneration operation? **Yes. We will leave the SCR system in place as it is in Units A and B. We don't expect to use it but we kept it as a backup.** When Unit C operates in simple cycle mode, will it operate fewer hours than base loaded cogeneration units? **Yes when it was a cogeneration Unit it operated approximately 97% of the time. As a peaking Unit we anticipate 15% to 25% operation time.**

The petition also includes a request to change Energy Commission Condition of Certification **AQ-27** to include a statement limiting the annual fuel usage of Unit C to 1,667 mmscf. However, in the application to the district, the limit is shown as 1,617 mmscf. Which number is correct? **The 1617 is**

the correct number. I'm not sure why the limit is proposed. Could you explain the basis for the proposed limit? **Aera Energy who is the ultimate owner of the permits has decided to request Emissions Reduction Credits (ERC) based on the reduced fuel usage.** Do you propose the same limit to be added to any district permit condition? **Since it is part of the ATC application to the district, should they accept it I expect they will either add a permit condition or add it to an existing condition.**

Can I have a copy of the current district permit? Or should I wait until the district finishes its analysis of the amendment? **I have attached the most current Unit C PTO.**

Thanks.

Wenjun

From: Greg Jans <gjans@midwaysunset.com>

Sent: Wednesday, June 23, 2021 4:15 PM

To: Qian, Wenjun@Energy <Wenjun.Qian@energy.ca.gov>; Ray Smith <RSmith@midwaysunset.com>

Cc: Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Dyas, Mary@Energy <Mary.Dyas@energy.ca.gov>; Stephanie Urias <SUrias@midwaysunset.com>

Subject: RE: Midway Sunset Unit C Post Certification Amendment For DLN1+TE

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Wenjun,

Ray left today on vacation. He won't be back until July 12, so in the interim I will answer the questions for you. You are welcome for the copy of the variance.

Yes we did receive a variance for Unit B. I have spent some time searching for the documents that may explain why the 410 lbs/day limit was inserted into the variance. I believe that limit is close to what the Unit would emit were it operating for 24 hours producing 17 lbs/hr of NOx and for the testing the district wanted us to stay below what we would normally emit. That is what I remember but until I can find the documentation it remains an unofficial answer. I will continue searching for any documentation.

We do plan on requesting a testing variance for Unit C post conversion. It would be similar to what we requested for Units A and B.

We also plan to install the same emissions sampling grid in Unit C that we installed in Units A and B. It has worked well on those two Units and we feel with the 8 sample points obtains a better sample of the emissions while also providing better tuning control for the Unit

combustion system. The controls tune to the sampled emissions. I have attached a drawing indicating how the sample probes are installed in the exhaust duct and I have also provided a picture of the installed sample system in one of the other Units.

I hope this answers your questions.

Please let me know if it has not or if you have any further questions or data needs.

Thank you.

Greg

From: Qian, Wenjun@Energy [<mailto:Wenjun.Qian@energy.ca.gov>]
Sent: Wednesday, June 23, 2021 9:27 AM
To: Ray Smith
Cc: Hughes, Joseph@Energy; Dyas, Mary@Energy; Greg Jans; Stephanie Urias
Subject: RE: Midway Sunset Unit C Post Certification Amendment For DLN1+TE

Hi Ray,

Thanks again for providing the variance for Unit A recommissioning. Did you also get variance for Unit B recommissioning? The NOx lbs/day limit (~410) is not in any district permit condition or our conditions of certification, correct? I can only see it's included in the emissions calculation in the application sent to the district. And I want to confirm that you will also apply for short variance for the Unit C recommissioning, similar to what's done for Units A and B.

I have another question. In the Post Certification Amendment request sent to CEC, there is a statement saying:

As part of the DLN I+TE combustion systems conversion, MSCC **installed** a continuous emissions monitor (CEM) grid with testing and sampling ports upstream of the bypass stack.

I'm not sure if this sentence applies to Units A and B or Unit C. I assume CEM grid was installed for Units A and B. Will CEM grid also be installed for Unit C bypass stack or was it already installed? Could you provide some clarification?

Thanks.

Wenjun

From: Ray Smith <RSmith@midwaysunset.com>
Sent: Wednesday, June 16, 2021 10:25 AM

To: Qian, Wenjun@Energy <Wenjun.Qian@energy.ca.gov>
Cc: Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Dyas, Mary@Energy <Mary.Dyas@energy.ca.gov>; Greg Jans <gjans@midwaysunset.com>; Stephanie Urias <SUrias@midwaysunset.com>
Subject: RE: Midway Sunset Unit C Post Certification Amendment For DLN1+TE

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning Wenjun,

You are correct, the upgrade to Unit C's combustion system will require tuning and recommissioning. MSCC has completed the upgrading, tuning and recommissioning of combustion turbine generators twice before (Units A & B). MSCC plans to use the same approach for Unit C and we expect Unit C to respond similarly. I have attached a copy of the Variance Order for Unit A along with a copy of Unit A's Variance Summary Report covering Unit A's combustion upgrade. The signed Variance Order shows what conditions the District permitted/required for the granted Variance Order while the Variance Summary Report records the actual NOx emissions produced during the tuning/recommissioning variance.

The District accepted MSCC's permitted lbs. NOx per day (~410) as the base. Excess NOx emissions were the NOx emissions in excess of the permitted amount per day. No other emissions exceeded permitted limits. Please let me know if you need anything else. Thanks much.

Ray

From: Qian, Wenjun@Energy [<mailto:Wenjun.Qian@energy.ca.gov>]
Sent: Tuesday, June 15, 2021 3:48 PM
To: Ray Smith
Cc: Hughes, Joseph@Energy; Dyas, Mary@Energy; Greg Jans; Stephanie Urias
Subject: RE: Midway Sunset Unit C Post Certification Amendment For DLN1+TE

Hi Ray,

Thanks for the documents again. I'd like to know if the new turbine will go through recommissioning or retuning. If so, can we have an estimation of the emissions during recommissioning or retuning compared with those originally evaluated?

Thanks.

Wenjun

From: Ray Smith <RSmith@midwaysunset.com>
Sent: Thursday, June 3, 2021 1:03 PM
To: Qian, Wenjun@Energy <Wenjun.Qian@energy.ca.gov>
Cc: Hughes, Joseph@Energy <Joseph.Hughes@energy.ca.gov>; Dyas, Mary@Energy

<Mary.Dyas@energy.ca.gov>; Greg Jans <gjans@midwaysunset.com>; Stephanie Urias <SUrias@midwaysunset.com>

Subject: RE: Midway Sunset Unit C Post Certification Amendment For DLN1+TE

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Wenjun,

Good to be working with you on MSCC's project. Please find attached MSCC's application to the San Joaquin Valley Air Pollution Control District for Authority to Construct Unit C's combustion system upgrade. Also attached is a copy of the District's Notice of Complete Application for the Authority to Construct.. Please contact me if you need anything. Thanks .

Ray

From: Qian, Wenjun@Energy [<mailto:Wenjun.Qian@energy.ca.gov>]
Sent: Thursday, June 03, 2021 9:24 AM
To: Ray Smith
Cc: Hughes, Joseph@Energy; Dyas, Mary@Energy
Subject: Midway Sunset Unit C Post Certification Amendment For DLN1+TE

Hi Ray,

I'm reviewing MSCC's application for Post Certification Amendment upgrading Unit C's combustion system to DLN1+TE. Can we also get a copy of the application you sent to the San Joaquin Valley Air Pollution Control District?

Thanks.

Wenjun Qian, Ph.D., P.E.
Air Resources Engineer
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814
Email: Wenjun.Qian@energy.ca.gov
Phone: 916-477-1339

