

DOCKETED

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Project Title:	Contra Costa Power Plant Project Compliance
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Document Title:	Petition for Staff Approval on Equipment Modification
Description:	N/A
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Organization:	PG&E Gateway Generating Station
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**Pacific Gas and
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November 20, 2014

Mr. Joseph Douglas
Compliance Project Manager
California Energy Commission
1516 Ninth Street, MS-2000
Sacramento, CA 95814

Reference: PG&E Gateway Generating Station (00-AFC-01C)

Subject: GEN-1: REQUEST FOR APPROVAL ON EQUIPMENT CHANGE
(Installation of Fixed Hydrogen Tube Bank)

Dear Mr. Douglas

In compliance with the CEC Condition of Certification – General Conditions, enclosed is a request for approval on equipment change to install a fixed hydrogen tube bank at the south side of the Gateway Generating Station (GGS) facility. The layout drawing of the proposed installation and photographs of the proposed location and typical tube bank installation are attached on this petition.

We have reviewed Commission Decision (00-AFC-1) and we believe that the above requested equipment change will not result in any new environmental impacts or require any modification to the existing Conditions of Certification contained in the Final Decision. If you have any questions regarding this matter, please contact Angel Espiritu at (925) 522-7838.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Benjamin E. Stanley', written over a blue horizontal line.

Benjamin E. Stanley
Senior Plant Manager

Enclosure: a/s
Cc: File

**REQUEST FOR APPROVAL ON EQUIPMENT CHANGE
AT
GATEWAY GENERATING STATION (GGS)**

1. **Installation of a fixed hydrogen tube bank**– The Gateway Generating Station gas turbine and steam turbine generators utilize high purity hydrogen gas for the safe and effective cooling of the generator windings. Currently the facility utilizes bulk mobile tube trailers provided by the gas supplier. The tube trailers are parked on a concrete pad in the south east corner of the facility. The supply piping is routed underground to all three generators where it is connected to each machine through pressure regulators.

a. **Description of Modification:** This modification proposes to install a bulk hydrogen tube module (“12 pack”) which will be secured to a concrete pad in the same location where the mobile tube trailers are currently in use. The tube module is similar to a trailer; however it has no wheels and will be secured and protected by permanent traffic barriers. This module will be connected to the existing supply piping.

Please see attached photos and drawings for further information.

b. **Necessity for the Modification:** The installation of the tube module will provide the following benefits:

- The hydrogen tube module will be secured to a concrete pad. This has a greater seismic stability than the current existing trailers currently in use.
- Tube trailer variability – Although PG&E uses high quality third party gas suppliers, having an installed tube bank would eliminate variability (size, condition, service history, etc.) in trailers delivered to the site and reduce possible risks.
- Tube trailer availability varies due to industry demands. In some cases, trailer availability has been problematic causing delays in delivery and could potentially impact reliability. With the proposed installation, the supplier can deliver bulk hydrogen to the site on a routine basis as they are located within 5 miles of the Gateway facility.

c. **Modification was not known at the time of Certification:** The need for this modification became apparent during the last several years of operation and was not considered at the time of Certification.

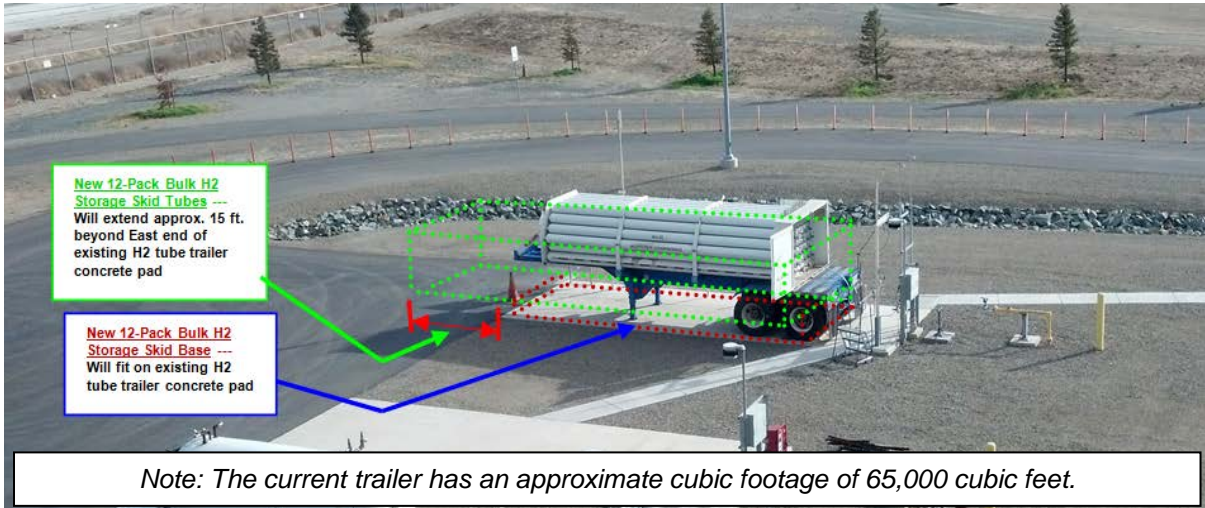
- d. **If the modification is based on new information that changes or undermines the assumptions, rationale, findings, or other bases of the final decision, an explanation of why the change should be permitted:** The modification does not change or undermine in any way the assumptions, rationale, findings, or other basis of the CEC Final Decision (00-AFC-1).
- e. **Analysis of the impacts the modification may have on the environment:** The installation of the hydrogen tube module will have no significant adverse impacts on the environment. It does not increase the approved amount of hydrogen stored and already in use at the facility.
- f. **Analysis on the impact of the modification on the facility's ability to comply with applicable laws, ordinances, regulations, and standards:** The proposed modification does not impact the facility's ability to comply with all applicable laws, ordinances, regulations, and standards. The tube bank will be installed per applicable LORS.
- g. **A discussion of how the proposed modification affects the public:** This modification will have no adverse effect on the public. The change will not likely be noticeable to the public as the module looks very similar to the existing tube trailers.
- h. **Property owners potentially affected by the modification:** No property owners will be affected by the proposed modification.

Attachments:

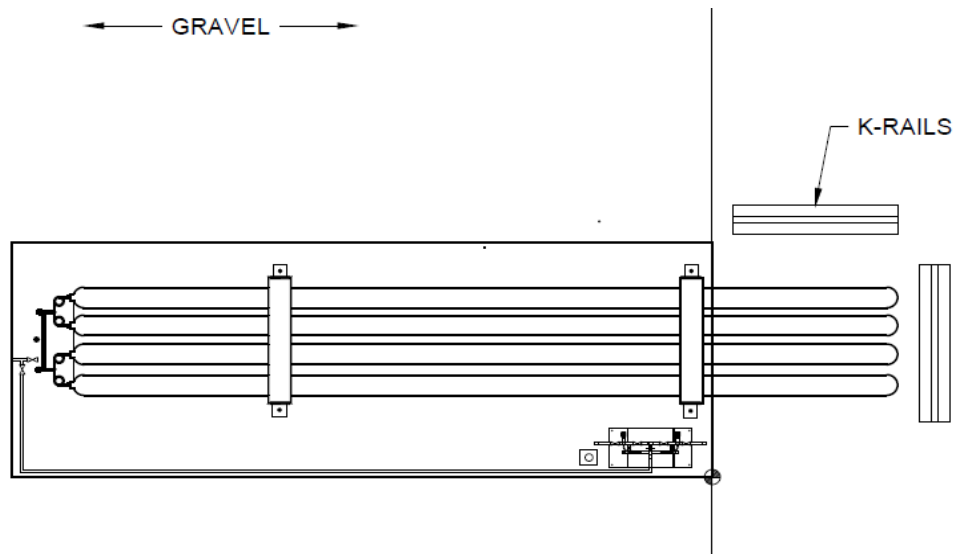
- a) Proposed Bulk Hydrogen Storage Skid Installation Location Footprint and arrangement drawing.
- b) Photo of a typical tube bank installation from another facility.

Attachment 1

Proposed Bulk Hydrogen Storage Skid Installation Location Footprint



Layout of proposed tube bank installation in this location:



Note: This tube bank has an approximate cubic footage of 54,000 cubic feet.

Attachment 2

Photo of a typical tube bank installation from another facility.

