SMUD
SACRAMENTO MUNICIPAL UTILITY DISTRICT
The Power To Do More.℠

P.O. Box 15830, Sacramento, CA 95852-1830; 1-888-742-SMUD (7683)

January 20, 2009
DPG 09-027

Mary Dyas
California Energy Commission
Energy Facilities Siting and Environmental Protection Division
1516 9th Street, MS-2000
Sacramento, CA 95814-5512

Re: SMUD Cogeneration Pipeline Project (92-AFC-2PC)
Campbell Cogen Measurement & Regulation Station Improvement Project

Dear Mrs. Dyas:

The Sacramento Municipal Utility District (SMUD) plans to upgrade the pipeline facilities that meter and regulate natural gas flow and pressure from SMUD's Line 700B to the Sacramento Power Authority (SPA) Campbell Cogeneration facility in South Sacramento. New equipment and electronics will improve the safety and reliability of pipeline operations. It has become problematic to obtain spare parts and support for the existing station electronics. All station improvements are on SMUD property within the existing station fenceline. Construction of the station improvements is scheduled to commence on or about April 14, 2009 to coincide with a scheduled outage at the SPA Campbell Cogen facility.

The following information is provided to address 20 CCR Section 1769 for post certification changes to the project.

A. Project Description

See the attached Design Basis Memorandum and drawings. No changes to Conditions of Certification or Verifications are needed, nor proposed.

B. Project Necessity

The station improvements are designed to enhance pipeline operations, safety, and reliability.

C. Certification Proceedings

The planned station improvements are not based on information known at the time of the pipeline certification proceedings.

D. Effects on CEC Decision

To SMUD's knowledge, information associated with the planned station improvements does not undermine the assumptions, rationale, findings, or other bases of the CEC's final decision.

E. Analysis of Environmental Impacts

No significant environmental impacts are anticipated. Minor excavation and shallow trenching for new or relocated pipe footings/supports, new control building pad, and wiring conduit will be limited to the area (approximately 40 feet x 100 feet) within the fenceline of the existing gas pipeline station. The minor excavation and trenching will occur in ground that was disturbed during prior pipeline construction activities. Hence, SMUD concludes that cultural resource monitors are not required for this project since the ground has already been disturbed. New station piping will be strength (i.e., pressure) tested with inert gas and/or water. If strength testing with water is necessary, wastewater from hydrostatic testing will be discharged to land in accordance with Regional Water Quality Control Board requirements or discharged to the sewer in accordance with the Regional Sanitation District requirements. One new outdoor light, equivalent to a porch light, will be installed on the new control building.

F. Impact of Modification on Facility's Ability to Comply with Applicable Laws, Ordinances, Regulations, and Standards

The planned station improvements are not expected to adversely impact SMUD's ability to comply with applicable laws, ordinances, regulations, and standards.

G. Effects on Public

The planned station improvements are expected to positively affect the public by enhancing pipeline operations, safety, and reliability.

H. List of Nearby Property Owners Potentially Affected

Campbell Soup Company
Union Pacific Railroad

I. Potential Effects to Nearby Property Owners, Public, and Parties to Application Proceedings

SMUD does not expect that nearby property owners, the public, or other parties will be negatively affected by the station improvements. Construction access to the project will be through the adjacent SMUD transmission substation.

Based on the information provided, SMUD believes that the planned station improvements are an administrative project change and do not constitute a change in design, operation, or performance of the pipeline or adjacent Campbell Cogeneration facility. Consequently, SMUD does not believe it is necessary to file a formal petition in accordance with 20 CCR Section 1769 of the Commission's siting regulations.

Please contact Roya Borman, Project Manager, at (916) 732-7132 or myself at (916) 732-6916 if there are any questions.

Sincerely,

Damon Smith
Regulatory Compliance Coordinator
SMUD Power Generation

Attachments: Campbell Station Improvement, Design Basis Memorandum
Drawings – 2009 Station Modifications, Campbell M&R Station

CAMPBELL SOUP STATION IMPROVEMENT
DESIGN BASIS MEMORANDUM (DBM)

1.1 Purpose of Design

This DBM summarizes the design basis for the reconstruction of the natural gas pipeline facilities that meters and regulates the natural gas flow and pressure from the Sacramento Municipal Utility District (SMUD) 20-inch Line 700B natural gas pipeline to the Campbell Soup, cogeneration plant in Sacramento, CA.

The intent of the Campbell Soup station improvement project is to replace the obsolete equipment and electronics with new and more reliable solutions.

1.2 Overview

Fuel gas for the gas turbine power plant at the Campbell Soup cogeneration plant is delivered to the site by the SMUD Line 700B, a 20-inch natural gas pipeline. Line 700B originates at the Morrison Creek Cross Tie, where it receives gas from the PG&E Winters inter-tie at SMUD's Line 700A. Line 700A cross ties at Morrison Creek with SMUD line 700B that extends northerly to supply fuel gas to the Campbell Soup and Procter & Gamble cogeneration plants.

The attached schematics show the high level design basis for the pipeline and the following Sections 1.3–1.7 describe the design basis for reconstruction of the Campbell Soup natural gas measurement and regulator (M&R) station.

Presently, fuel gas to the plant is supplied solely by PG&E from the 36-inch Line 400 pipeline near Winters, California. The gas supplied by PG&E comes from Canada. It is dried and adequately odorized prior to custody transfer so dehydration and odorization facilities by SMUD are not necessary.

The pipelines 700A/700B and their associated M&R stations were designed, built, tested, and commissioned in 1995 in accordance with the Federal Pipeline Safety Standard, 49CFR Part 192, California Energy Commission approval documents, and SMUD's Engineering Standards. The pipelines 700A/700B facilities were designed by Ford, Bacon & Davis.

The Campbell Soup natural gas M&R Station is located approximately on the northwest corner of the Campbell Soup property.

1.3 Gas Pressure & Flow Design Basis

The design pressure of the regulator station is limited to 285-310 psig, required by the operations of the Siemens Gas Turbines. For the improvements that are being proposed, the maximum pressure that will be experienced at the inlet of the Campbell Soup Meter Station will be 720 psig. However, the maximum gas

pressure that is delivered to the Campbell Soup plant is 285-310 psig. This is achieved by two runs (Lead/Lag) of Mooney regulator/working monitor arrangement

The maximum flow for this design basis to the Campbell Soup Co-Generation facility is based on 158-175 MWH electric generation which correspond to 29.75 -32.94 MMSCF per day.

1.4 Campbell Soup Energy Metering & Regulating Stations Proposed Modifications

a. Install a new gas chromatograph.

b. Install a new ultrasonic gas meter with a flow conditioner, designed and constructed in accordance with AGA Recommended Practice 9. The meter will be provided with a bypass. The flow meter will include a spool piece and flow conditioner.

c. Modify the existing gas flow computer to work with the new electronics.

d. Install valve control module in the gas flow computer to operate the ESD valve V300.

e. Redesign the gas regulator and monitor regulator/their associated piping to accept/allow for the dissipation of the ultrasonic noise which could effect the accuracy of the meter.

f. Install new underground conduits, new wiring, new junction boxes

g. Install a new control building.

h. Relocate the MLV-4 and Campbell RTUs and terminal blocks inside the new control building, and tie-in the field instrumentation wiring from the newly installed junction boxes into the RTUs and the terminal blocks.

i. Relocate station electrical panel and its associated disconnects inside the new control building.

j. Field test and function test the valve V-300 and the electronics to ensure reliable operations.

k. Program the RTU and field electronics.

l. Start-up the station electronics with the equipment vendors.

1.5 Specialty Items and Equipment

The following items of equipment are specified for purchase from the indicated manufacturer to conform to other existing stations, including the Consumnes

Power Plant, in order to simplify operation and maintenance of the facility and the training required for operating and maintenance personnel.

Devices and Instrument	Manufacturer
Ultrasonic Meter	Instroment
Flow computer modules	ABB Totalflow
Gas Chromatograph	ABB
Valves	Fisher/ Cameron/Grove

1.6 Design Pressures

All valves, regulators, meters, and other specialty gas items shall be designed for ANSI class 600.

All station piping shall be designed for a minimum of 812.5 psig with schedule 80XS rating.

1.7 Codes & Regulations

All engineering equipment, fabrication, and construction shall meet all applicable industry Standards, Codes & Specifications, including but not limited to the following:

a. Federal Pipeline Safety Regulations	49 CFR Part 192
b. American Society of Mechanical Engineers	ASME B31.8
c. American Petroleum Institute	API 1104
a. National Electrical Code	NFPA 70
b. California Title 24	
c. Ultrasonic Metering Standard	AGA RP-9A

END OF DOCUMENT

SACRAMENTO MUNICIPAL UTILITY DISTRICT
CAMPBELL SOUP
NATURAL GAS METER REGULATOR STATION

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

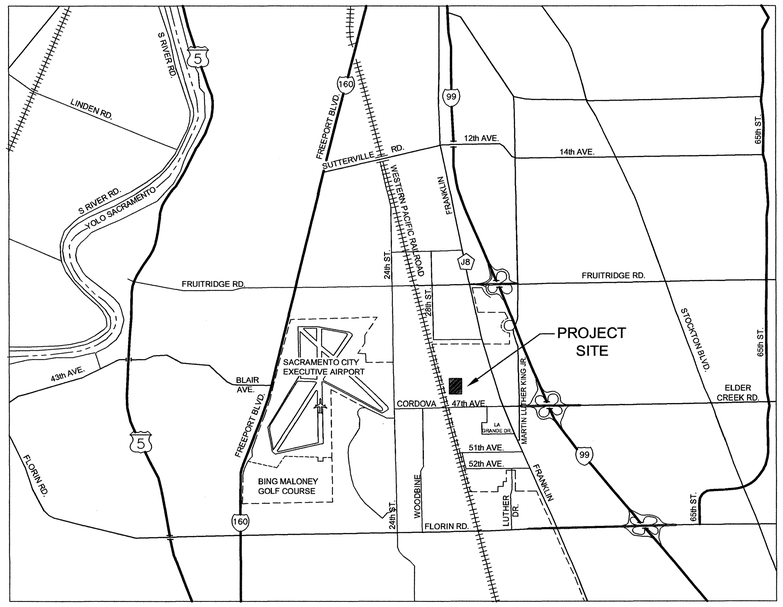
LOCATION MAP

REDUCED PLAN
USE SCALE BELOW
0 1 2 3
3 INCHES ON ORIGINAL PLAN

SCOPE OF 2008 - 2009 RECONSTRUCTION WORK

THIS DRAWING PACKAGE IS BEING ISSUED FOR THE RECONSTRUCTION OF THE NATURAL GAS FACILITIES AT THE CAMPBELL SOUP (CAM) GAS METER & REGULATOR (MR) STATION IN SACRAMENTO, CALIFORNIA. THE WORK INCLUDES THE FOLLOWING TASKS:

1. REPLACE THE TWO TURBINE METER ASSEMBLIES WITH ONE ULTRASONIC FLOW METER ASSEMBLY & A METER BYPASS.
2. REPLACE THE MAIN GAS PIPING TO ACCOMMODATE THE NEW METER ASSEMBLY & TO REDUCE THE NOISE LEVEL ACROSS THE STATION.
3. REPLACE THE SECTIONS OF THE MAIN GAS PIPING WHERE GROUNDING CONNECTIONS WERE ATTACHED TO IT BY THE THERMIT WELDING PROCESS & RECONNECT THE GROUNDING CABLES IN ACCORDANCE WITH SECTION 862.115 OF ASME B31.8.
4. RELOCATE ABOVE GROUND THE PRESSURE TAP FOR THE STATION DOWNSTREAM PRESSURE TRANSMITTER PT–302.
5. INSTALL A NEW ABB GAS CHROMATOGRAPH.
6. INSTALL A CONTROL BUILDING & RELOCATE THE SMUD RTU & MAIN LIGHTING & POWER PANELBOARD INSIDE THE BUILDING. INSTALL NEW TELECOM RACK & EQUIPMENT.
7. REMOVE THE EXISTING RTU FOR MLV NO. 4 & STATION VALVE 300, INCLUDING THE SHELTER, & INTEGRATE THE EXISTING SCADA CIRCUITS FOR THESE TWO VALVES INTO THE CAMPBELL SOUP MR STATION RTU.
8. REPLACE ELECTRICAL JUNCTION BOXES, CONDUITS & WIRING.



N VICINITY MAP

ALL MODIFICATIONS TO THE STATION SHALL CONFORM TO THE FOLLOWING CODES & STANDARDS:

MINIMUM FEDERAL GAS PIPELINE SAFETY STANDARD 49 CFR PART 192
NATIONAL ELECTRIC CODE (NEC)
CALIFORNIA CODE OF REGULATIONS, TITLE 8 CAL OSHA
ASME B31.8

NOTICE

ALL WORK SHALL BE ORGANIZED AND PERFORMED SUCH THAT THE FACILITY REMAINS IN OPERATION UNLESS A SCHEDULED SHUTDOWN HAD BEEN AUTHORIZED BY GPO & THE PLANT.

CONTACTS:

PROJECT MANAGER
SACRAMENTO MUNICIPAL UTILITY DISTRICT
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DESIGN ENGINEERS
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FAX: (925) 944–4833

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FAX: (925) 988–0174

CONSTRUCTOR
TO BE DETERMINED

ENGINEERS SEAL
REGISTERED PROFESSIONAL ENGINEER
CHARLES J. TATEOSIAN
No. 10689
MECHANICAL
STATE OF CALIFORNIA
9/30/09

NUMBER	REFERENCE	NUMBER	REFERENCE

NO	REVISION	BY	CHK	APPD	DATE
1	INCORPORATED CLIENT'S COMMENTS & ISSUED FOR CONSTRUCTION	KS	CRL	WLR	01/30/09
C	INCORPORATED CLIENT'S COMMENTS & ISSUED FOR 100% DESIGN REVIEW	KS	CRL	WLR	12/05/08
B	ISSUED FOR CLIENT'S REVIEW	LDG	CRL	WLR	08/18/08
A	ISSUED FOR INTERNAL REVIEW	LDG	CRL	WLR	04/16/08

ENGINEERING	DATE
DESIGN BY	
DRAWN BY LDG	04/08/08
CHECKED BY CRL	
APPROVED BY	
APPROVED BY	

DO NOT SCALE THIS DRAWING
USE DIMENSIONS ONLY

SMUD
SACRAMENTO MUNICIPAL UTILITY DISTRICT
GAS PIPELINE OPERATIONS
A PIPELINE SERVING ELECTRIC GENERATION

DRAWING TITLE
GENERAL – COVER SHEET
2008 STATION RECONSTRUCTION
CAMPBELL SOUP METER STATION
SACRAMENTO, CALIFORNIA

SCALE	DRAWING NUMBER	REV.
NONE	GPO–CAM–G1100	1
SHEET NO.		