



*Pacific Gas and
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VIA ELECTRONIC MAIL

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Re: Pacific Gas and Electric Company's Comments on the California Electricity Generation Facilities Standards Committee's Proposed Generating Facility Logbook Standards for Hydroelectric Plants

Dear Committee Members:

Pursuant to the schedule set forth in Commissioner Wood's notice dated May 9, 2003, Pacific Gas and Electric Company ("PG&E") hereby offers the attached comments on the California Electricity Generation Facilities Standards Committee's ("Committee") proposed Generating Facility Logbook Standards for Hydroelectric Plants.

PG&E hopes the Committee finds these comments helpful in this proceeding.

Sincerely,

/s/

Janet C. Loduca

cc: Electronic Service List, Rulemaking 02-11-039

**PACIFIC GAS AND ELECTRIC COMPANY'S COMMENTS ON THE
CALIFORNIA ELECTRICITY GENERATION FACILITIES STANDARDS
COMMITTEE'S PROPOSED GENERATING FACILITY LOGBOOK
STANDARDS FOR HYDROELECTRIC PLANTS**

I. Background and Overview of Standards

On April 1, 2003 the California Electricity Generation Facilities Standards Committee (Committee) adopted Electricity Generating Facility Logbook Standards applicable to thermal energy generating facilities. The Committee also directed staff to develop logbooks standards for hydroelectric generating facilities. On May 2, 2003, ALJ Mattson electronically served staff's proposed Generating Facility Logbook Standards for Hydroelectric Plants (Hydro Logbooks) on the parties in this proceeding. PG&E submits these comments on the Hydro Logbooks pursuant to the schedule set forth in Commissioner Wood's notice dated May 9, 2003.

The Hydro Logbooks closely mirror the logbook requirements for thermal plants. They require operators of hydroelectric facilities to maintain detailed "Control Operator Logs," with the option of tracking some of the required information in "Equipment OOS Logs" and "Work Authorization Logs." Staff has deleted some of the obviously inapplicable references to features of thermal plants such as boilers and fuel condensers from the Hydro Logbooks. Staff has also attempted to add more "hydro-like" references such as "water availability" and "inadequate water levels." However, for the reasons described more fully below, PG&E believes the proposed Hydro Logbooks still fail to accurately capture the nature and operating parameters of hydroelectric generating units. In these comments, PG&E describes its current logbook procedures for its hydroelectric generating units, which we believe are more than sufficient to meet the Committee's needs. PG&E also has been working with Southern California Edison to

develop specific alternative language for the Committee's consideration. We hope to file a joint proposal with our reply comments this Friday, May 23, 2003.

II. Jurisdictional Issues

As discussed at length in earlier comments in this proceeding, PG&E believes the Committee and California Public Utilities Commission (Commission) lack authority to adopt or enforce maintenance and operations standards (including logbook requirements) for hydroelectric projects licensed by the Federal Energy Regulatory Commission (FERC), based on FERC's exclusive jurisdiction over such facilities under Part I of the Federal Power Act (FPA). PG&E has briefed the federal preemption issue for FERC-licensed hydroelectric generating facilities in previous comments in this proceeding. We will not repeat those arguments here, but incorporate them by reference.

III. Description of Hydroelectric Operations and Logbooks

As noted by Committee member Glenn Bjorklund at the last Committee meeting, hydroelectric generating facilities operate in a vastly different manner than thermal plants. While PG&E supports the Committee's efforts to assure electric system reliability, we suggest that both the Committee and the Commission focus their limited resources on those areas that will have the biggest impact. For example, the average size of PG&E's 107 conventional hydroelectric generating unit is only 25 megawatts, compared to typical fossil units which range from 300 – 1000 megawatts. In the case of hydroelectric generation, a single unit outage will have very little impact on system reliability. In addition, in contrast to fossil plants, hydroelectric generating plants are "energy limited" resources, meaning that even when a unit is not available the energy typically is not lost; it is generally available for use at another time when

the unit returns to service. For the “run-of-river” hydroelectric plants with little or no storage capacity, energy production is at the mercy of Mother Nature.¹

In short, the very nature of hydroelectric generating facilities severely limits the potential effect of a hydroelectric unit on system reliability, as well as an operators’ ability to “game” or manipulate the market. Indeed, PG&E is not aware of any evidence that hydroelectric generating facilities contributed to the energy crisis in 2000 and 2001. For these reasons, PG&E, like Committee member Bjorklund, questions the need for the Committee to adopt any logbook requirements for hydroelectric generating facilities. Nevertheless, to the extent the Committee is inclined to adopt such standards, PG&E strongly urges the Committee to adopt modified standards that conform to PG&E’s existing logbooks, as described more fully below.

As noted in earlier comments, while a few of PG&E’s hydroelectric facilities are manned, most are unattended and operated remotely through one of several switching centers. Accordingly, PG&E has developed internal standards for operations logs that take into account the differences between attended facilities, switching centers, and unattended facilities. The current version of these standards are set forth in PG&E’s Power Generation Standard PGO-S079, a copy of which is attached hereto as Exhibit A.

As shown in Exhibit A, the majority of operational information is recorded in the Attended Station and Switching Center logs. These stations are attended 24 hours a day, 7 days a week. The Attended Station and Switching Center logs are a computerized “real time” chronological record of the operations and activities at the various hydroelectric powerhouses.

¹ PG&E’s FERC-licensed hydroelectric facilities are also subject to license conditions that seek to balance a number of competing uses for the water resource including power generation, fish and wildlife needs, irrigation and consumptive water demands, and recreational opportunities. For example, a FERC license requires specified minimum instream flow releases for fish and wildlife. Some licenses also require increased flows during certain times of the year for whitewater recreationalists. Obviously, hydroelectric operations are constrained by these license conditions.

Among other things, operators at the attended stations and switching centers record all operation-related communications, all orders received and transmitted, voltage order changes, load changes, flow and draft changes, unit outages and de-rates, Automatic Voltage Regulator and Power System Stabilizer operations, voltage deviations, governor operations, and black-start information. Operators of the Attended Stations and Switching Centers also log maintenance activities that occur at the various hydroelectric powerhouses. However, they are not in possession of the detailed back-up documentation related to the maintenance work, such as test results. This information is kept separately by the maintenance crews.

PG&E also maintains handwritten logs at each of its unattended powerhouses. However, these Unattended Station logs serve a very different purpose – to record the activities of PG&E employees when they go to these stations. Employees are required to log “in” and “out” of the facilities. They must describe the purpose of their visit (e.g., maintenance) and information relevant to that purpose (e.g., equipment involved, alarms or other indicators, notifications, corrective actions, and estimated repair/return times). Because entries are made in the Unattended Station logs only when employees enter or exit the powerhouse, there may be days or even weeks between entries.

PG&E believes the information recorded pursuant to its Standard PGO-SO79 is more than sufficient to meet the Committee’s purposes. This is particularly true given the limited ability of hydroelectric units to affect on system reliability, as compared to conventional fossil units. While PG&E applauds staff’s efforts to modify the thermal logbook standards to fit hydroelectric generating units, we believe the PG&E Standard PGO-SO79 more accurately captures the operating parameters of hydroelectric facilities, as well as the practical effect of attended and unattended stations. For example, it is unclear what the terms “water availability”

and “inadequate water levels” in the proposed Hydro Logbooks refer to. Moreover, the “availability” of water provides no measure of a hydroelectric facility’s operation and maintenance practices. Rather, consistent with the NERC and WECC standards, availability of hydroelectric powerhouses should be measured by the unit’s mechanical and electrical capability.

Accordingly, PG&E believes the Committee, and ultimately the ratepayers and public², will be better served by adopting standards that conform to PG&E’s PGO-SO79. The standards should be specific enough to capture the required information, but broad and flexible enough to allow operators of hydroelectric facilities to utilize their existing logging systems to the maximum extent possible. PG&E has been working with Southern California Edison to develop specific alternative language that meets this goal. We hope to file a joint proposal with our reply comments this Friday, May 23, 2003.

² Requiring PG&E to modify its logbooks to conform to the proposed standard could result in a potentially expensive and unnecessary cost to ratepayers.

Power Generation Standard PGO-S079ISSUING DEPARTMENT: **Power Generation**EFFECTIVE DATE: **04/15/02**SPONSOR: **Lead Director, Power Generation**REVIEW DATE: **04/15/04**PAGE NO.: **1 OF 7****TITLE: Procedure for Operations Logs**

Purpose	This Standard establishes instructions for making entries into the operation log for attended and unattended facilities in Power Generation.
Implementation and Enforcement Responsibilities	<p>The Lead Director, Power Generation, is responsible for approving, issuing and revising this Standard.</p> <p>The Lead Director may delegate document issuing and revising responsibilities to a supervisor within the department.</p> <p>The Area Hydro Managers, Hydro Construction Manager, and Hydro Maintenance Manager are responsible for enforcement of this Standard.</p> <p>The assigned job lead is responsible for implementation of this Standard. The job lead may include an Exempt Foreman, Generation Supervisor, or other responsible person.</p>
Compliance	All personnel who are required to make entries into station logs must comply with this standard. Generation Supervisors are required to regularly review station logs for compliance.
General	This standard ensures that operating information associated with normal operation, testing, and abnormal activities is properly recorded.
Procedure	<p>This standard ensures that operating information associated with normal operation, testing, and abnormal activities is properly recorded.</p> <p>Switching Center and Attended Station logs will be the chronological record of the operation and activities that occur within its jurisdiction. The log shall contain all pertinent information, including, but not limited to, orders received and transmitted, relay operations, messages, water regulation, unit separation and parallel times, load changes, the receiving, approval or disapproval of applications for work, clearances, reporting on and off clearances, start and completion of switching operations, the application, removal, moving, location and number of grounds, accidents, trouble reports, daily operations, and system setups.</p> <p>The direction of information flow shall be clearly defined in the entry. Logs will be kept current with clear, concise and complete entries. Each entry shall be written so it will be clearly understood what has occurred. Only facts are to be logged. No entries based on speculation or of a facetious nature shall be made. The operator on shift will record all operational information directly into the log at the time the message, order, etc. are issued or received.</p>

TITLE: Procedure for Operations Logs

Procedure

Log entries will include:

- Time (in 24 hour format): This entry will be the time the event occurred, i.e.: action, notification, message received, order executed, etc.
- Location of the event.
- Text description of event.
- All information that is pertinent to the event, including but not limited to; equipment involved, loads and other readings, voltage orders, load changes, deviations, weather, annunciator drops, alarms or other indications, relay target information including device number, curtailments, limitations, notifications, corrective actions, estimated repair/return times.
- Only approved abbreviations as outlined in PG-S403 or from a local list approved by the responsible generation supervisor shall be used for log entries.
- Entries regarding clearances and grounding operations shall be in accordance with PG-S403. The Reporting On or Off of clearances shall be logged as an independent entry and will include the switch log number for the clearance.

Switching Center/Attended Station Logs

Logging of operations at Switching Centers/Attended Stations will be in HUSRS (Hydro Unit Status Reporting System).

- Log Date: The date for the log entry.
- Time (in 24 hour format): The time the action took place at the center making the entry, or the time the information being logged is received from a remote location by the center.
- ID/Location: The location the event took place. The number of such locations shall be kept to a minimum at each center to facilitate search functions within HUSRS.
- Description: For events taking place at the center doing the logging this will be the text description of the event. For events being recorded from another location, or being reported by a person other than the operator doing the logging, the entry will include the reporting persons name, then the description of the event.
- Entry Type: Locally controlled field. The number of such entry types shall be kept to a minimum at each center to facilitate search functions within HUSRS.

TITLE: Procedure for Operations Logs

Procedure

Switching Center/Attended Station Logs (continued)

- Report ID: Used to identify log entry report types.

Log Entries

Unit Operation

All activities associated with the operation of the powerhouse or those under the direction of the switching center will be recorded in the log. This will include but are not limited to:

- Orders received and transmitted
- Communications
- Voltage order changes
- Separations and parallels
- Load changes
- Deviations
- Flow and draft changes
- Reporting on / off clearances
- Grounding operations

Entries will be made at the time of the event. Multiple time entry items in the description field will not be made except for recording reports from remote locations or in emergencies.

Switching

Log entries for switching will include the switch log number, reason for the switching, and, if a portion of the switch log is to be completed, the operations that are to be or have been completed.

Corrections

Log entries that are incorrect shall be Invalidated and the correct entry made. Later entries noting a correction to information in a previous entry will not be used.

Recording Reports From Remote Facilities

Log entries made to record information received from remote locations:

- The log date and time will be the time the information is received at the switching center.
- The ID / Location will be the location the information is received from or about.

TITLE: Procedure for Operations Logs

Procedure

Log Entries

Recording Reports From Remote Facilities (continued)

- The description will include a clear and concise statement regarding the information received, i.e.;
J. Doe reports cleaned grids at Tunnel 7, 8, and 9; found wood retainer wall at tunnel 8 has fallen over and will be repaired tomorrow; the fallen wall has not caused any problems to the canal or road.
- Entries recording multiple operation times reported will have the time of operations listed at the start of each line, i.e.:
J. Doe reports:
1402 Unit separated for off line auto testing per SW log 02-002
1433 Off line auto testing completed
1435 Unit paralleled and available SW log 02-002 completed

Required Entries

The following entries are required to ensure proper reporting to regulatory agencies:

Unit outages / De-ratings

When a forced outage or de-rating on any generating unit occurs the Entry Type will be TROUBLE, EMERGENCY or FORCED OUTAGE with a Report ID of “TRB” and all logging associated with the outage or de-rating, communications, updates, scope of repair and return to service including Parallel / Separation times will all be made with this Entry Type and Report ID.

AVR / PSS Operations

Log entries for all trouble associated with AVRs and PSSs will use the Report ID “VR”. AVR / PSS outage tracking will be through HUSRS event reporting. AVR events will be AV and given the NERC cause code of 4700 and PSS events will be PS and given the NERC cause code of 3644. These events are only open during the time the affected unit is on line and the AVR or PSS is unavailable. These events are reportable to the WSCC and are subject to sanctions. Efforts to obtain direction from the ISO to continue operation with the equipment out of service should be made. This action will negate sanctions if permission is obtained.

Voltage Deviations

Log entries for units that are unable to maintain voltage and reactive orders will use the Report ID “VD”. The entry will include the limiting factor(s).

TITLE: Procedure for Operations Logs

Procedure

Required Entries

Voltage Deviations (continued)

Tracking will be through HUSRS event reporting. Any time online generation is unable to meet voltage and reactive orders a VD event will be created using cause code 4750. The event is only open during the time the affected unit is on line and cannot meet voltage and reactive orders.

Governor Operations

For those units that are reported to ISO, to operate on the free governor, all log entries for when the unit is unable to comply with free governor operation will use the Report ID “BG”. Unavailability of the free governor will be tracked through HUSRS event reporting. Free Governor events will be BG and given the NERC cause code of 7050. The event is only open during the time the affected unit is on line and cannot meet free governor operation.

Black-Start

Log entries for units that have Black-starting capability will use the Report ID “BS”. This Report ID will be used for actual starts, failed starts, and for test starts and the description will include information regarding the reason and results.

Unattended Station Logs

Logs will be kept current with clear, concise, complete and legible entries.

Entries will be made consecutively. The date will be entered into the log for the first entry of each day.

Log entries will include:

- Time (in 24 hour format)
- Location of the event
- Text description of event.
- All information that is pertinent to the event, including but not limited to; equipment involved, loads and other readings, voltage orders, load changes, deviations, weather, annunciator drops, alarms or other indications, relay target information including device number, curtailments, limitations, notifications, corrective actions, estimated repair/return times.
- Only approved abbreviations as outlined in PG-S403 or from a local list approved by the responsible generation supervisor shall be used for log entries.

TITLE: Procedure for Operations Logs

Procedure

Required Entries

Unattended Station Logs (continued)

- Entries regarding clearances and grounding operations shall be in accordance with PG-S403. The Reporting On or Off of clearances shall be logged as an independent entry and will include the switch log number for the clearance.

Log Entries

Unit Operation

All activities associated with the operation of the powerhouse or those under the direction of the switching center will be recorded in the log. This will include but are not limited to:

- Orders received and transmitted
- Communications
- Voltage order changes
- Separations and parallels
- Load changes
- Deviations
- Flow and draft changes

Entries will be made at the time of the event.

Corrections / Deletions

Corrections or deletions to log entries shall be made with a single line through the item or entry to be corrected or deleted, initial and dated and correct information entered. No entries will be erased, or blocked out. Later entries noting a correction to information in a previous entry will not be used.

Logging Into and Out of Stations

All personnel entering and exiting unattended stations will follow instructions in PG-S071. Each person shall log into the station log, stating the reason for his or her visit. When a crew is working at an unattended station it is permissible for the lead employee to enter their presence in the station log indicating the reason and number of employees and the crewmembers shall sign into the visitor log. Each person shall log out prior to leaving the station.

Switching

Log entries for switching will include the switch log number, reason for the switching, and, if a portion of the switch log is to be completed, the operations that are to be or have been completed.

TITLE: Procedure for Operations Logs

References PG-S403 – Clearance, Switching Log and Tagging Procedures
Rescinds Memo dated January 29, 1998 regarding the reporting of AVR / PSS unavailability.

Date Issued/Updated:

Effective: **April 15, 2002**

Review Date: **April 15, 2004**

Authorizing Signature:

RANDAL S. LIVINGSTON

Date signed: _____

RBA:dkb