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December 29th, 2025

Dustin Hubbard
Director, Western Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

CPF 5-2025-007-NOA Response

Mr. Hubbard,

IGU is submitting the following responses to the findings outlined in CPF 5-2025-007-NOA received on December 3, 2025. Revised plans and procedures are included with this response as appendices.

1. §192.631 Control room management.

(a) General.

(1) This section applies to each operator of a pipeline facility with a controller working in a control room who monitors and controls all or part of a pipeline facility through a SCADA system. Each operator must have and follow written control room management procedures that implement the requirements of this section, except that for each control room where an operator's activities are limited to either or both of:

(i) Distribution with less than 250,000 services, or

(ii) Transmission without a compressor station, the operator must have and follow written procedures that implement only paragraphs (d) (regarding fatigue), (i) (regarding compliance validation), and (j) (regarding compliance and deviations) of this section.

IGU's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, a review of IGU's Gas Control Plan (GCP), Revision 03, effective date July 22, 2024, revealed that the GCP did not include what criteria IGU used to establish what it considered to be a control room. IGU has three physical sites and several portable laptop computers capable of accessing its Supervisory Control and Data Acquisition (SCADA) system in order to monitor and control parts of its pipeline facility. A review of IGU's GCP found that while it identified the three physical locations as primary and backup control rooms, it was silent regarding the laptop computers. Further, the plan did not define a control room. As its control room personnel were required to be qualified controllers, without defining what was a control room or identifying through specified criteria whether the laptops capable of accessing its SCADA system were considered control rooms per IGU's GCP, it is unclear whether IGU required its personnel to be qualified controllers in order to access and operate the SCADA system via the laptops.

Accordingly, PHMSA proposes that IGU must amend its written procedures to establish criteria defining a control room.

IGU Response:

A copy of the revised SOP *G-7160 Control System* has been attached as Appendix A. The definitions for control rooms and backup control rooms were implemented in Revision 0 of SOP G-7160 on 1/1/2025 with the verbiage:



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“Control Room:

The main building at an IGU storage facility that controls the individual site and or influences the distribution system.

Backup Control Room:

A location deemed necessary for the safe operation of IGU facilities in the event the main control center becomes inoperable.

Note: Other forms of electronic monitoring (e.g., laptops) are not to be considered a Control Room unless there is an emergency and/or the controller has been relieved of duty, handing over responsibility to a qualified person authorized to issue field commands.”

Definitions have been updated in Revision 2 with an effective date of 12/22/2025 to state:

“Control Room:

The main building at an IGU storage site that houses the controls for the individual site and/or influences the pipeline system.

Backup Control Room:

A location deemed necessary for the safe operation of IGU facilities in the event the main control center becomes inoperable.

Note: Other forms of electronic monitoring (e.g. laptops) are to be used as a diagnostic and monitoring tool by experienced operators and supervisors and are not to be considered a Control Room unless there is an emergency and/or the controller has been relieved of duty. Only qualified controllers may operate the SCADA system from these devices, and backup controllers will be subject to all fatigue mitigation practices outlined in the Gas Control Plan.”

These updated procedures put in place the requirement that only qualified controllers may operate the SCADA system and the laptops are to be used as a monitoring and diagnostic tool to assist the qualified controller.

2. § 192.605 Procedural manual for operations, maintenance, and emergencies.

(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

IGU’s procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, IGU’s GPC failed to provide a clear process for reviewing the fatigue education training program, required by its plan.

During the inspection, PHMSA reviewed IGU’s GCP. While reviewing the GPC’s section on Fatigue Management and Training, PHMSA observed that the section stated, in part that “[t]he Fatigue Management plan shall be reviewed once per calendar year, not to exceed 15 months.” However, upon further review, the GCP did not include any details or specifics on how IGU’s personnel would conduct the review. In addition,



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the GPC was silent regarding who was responsible for conducting the annual review, what metrics IGU's personnel should use to determine effectiveness, how IGU's personnel should address identified deficiencies, and how the review would be documented.

Accordingly, PHMSA proposes that IGU must amend its written procedures to provide a process on how to conduct the annual review of its fatigue management and training plan.

IGU Response:

IGU's *SOP G-1001 Safety Standard and SOP Review* is attached as Appendix B. This SOP addresses who is responsible for reviewing all plans and procedures and how identified deficiencies should be addressed. Specifically, Section 3 of this SOP outlines IGU's review process for all SOPs and plans with the following procedure:

"SOP Review Process:

- Once per calendar year, not to exceed 15 months, IGU shall review all SOPs and plans and make any changes required by regulations, change in operation, or change in personnel. All changes shall be documented on the SOP Review Form. The SOP Review Form is attached to this SOP and is also available on the Regulatory Drive. In addition to the annual review, IGU may review and make changes throughout the year based on changing regulations, operational changes, personnel changes, or other reasons. The review process will:
- A. Review the SOP or plan and make any changes required by a change in 49 CFR 192, 49 CFR 193, operational processes and practices, or a change in signing authority. Examples prompting a revision may include, but are not limited to:
 - 1) Changes in regulations that affect the operations of the pipeline or LNG facilities,
 - 2) Changes in equipment specifically referenced, such as valve numbers or plastic fusion equipment used,
 - 3) Change in the title or name of the person responsible, or
 - 4) Changes in the operational processes due to equipment changes or best practices,
 - 5) Lessons learned or identified deficiencies,
 - 6) Documented schedule deviations,
 - 7) Incidents caused by fatigue.
 - B. Save the SOP Review Form to the Regulatory Drive and update the SOP Review Tracker as required. NOTE: The date the SOP was reviewed must be included on the SOP Review Tracker even if no changes have been made.
 - C. Once all SOPs or plans have been reviewed and changed as necessary, notify all employees and conduct the required training."

Additionally, IGU has added a reference in the Gas Control Plan (Appendix C) which will guide reviewers to the procedure outlined in *SOP G-1001 Safety Standard and SOP Review* with the statement:

"The Fatigue Management Plan shall be reviewed once per calendar year, not to exceed 15 months. This review will follow the process outlined in SOP G-1001. The review shall be documented and stored for a minimum of 5 years."

3. § 192.631 Control room management.

(a) ...



(d) *Fatigue mitigation.* Each operator must implement the following methods to reduce the risk associated with controller fatigue that could inhibit a controller's ability to carry out the roles and responsibilities the operator has defined:

(1) Establish shift lengths and schedule rotations that provide controllers off-duty time sufficient to achieve eight hours of continuous sleep;

IGU's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, a review of IGU's GCP revealed the plan failed to establish schedule rotations that provided controllers off-duty time sufficient to achieve eight hours of continuous sleep, as required.

During the inspection, PHMSA reviewed IGU's GCP and found the Fatigue Mitigation and Scheduling section did not provide schedule rotations (*e.g.*, DuPont Schedule or modified versions) demonstrating that controllers are given sufficient off-duty time to achieve eight hours of continuous sleep. While the plan outlined day and night shift times, it lacked detail on how shifts rotate or how the scheduling system ensures adequate rest between shifts.

Further, PHMSA identified that the Fatigue Mitigation and Scheduling section failed to address on-call personnel who are qualified controllers. The GCP did not define or identify on-call controllers who may be called in to operate the control room. These individuals appear to maintain traditional work schedules with other responsibilities outside the control room but who are available to fill in when needed. The GCP did not outline shift lengths or shift rotations for these on-call personnel nor did it describe how their hours would be tracked to ensure the ability to achieve eight hours of continuous off-duty sleep. On-call controllers are subject to the same fatigue mitigation standards as regular controllers including defined shift lengths and schedule rotations to ensure fatigue risk is managed.

Accordingly, PHMSA proposes that IGU must amend its written procedures to establish shift length and schedule rotations that provide controllers off-duty time sufficient to achieve eight hours of continuous sleep.

IGU Response:

Procedures which outlined shift lengths and schedules were previously found in *SOP G-7160 Control System*, but this SOP was in development at the time of the inspection. This information since has been migrated to the Gas Control Plan (Appendix C) for clarity. The plan has been amended to outline controller schedules that allow for at least eight hours of continuous sleep with the following verbiage:

“Control rooms are staffed 24/7 using a rotational schedule to ensure operators can achieve 8 hours of continuous sleep. The typical schedule is a 4-3-3-4 rotating shift schedule using 12-hour shifts. The controller schedule is split into a day shift and a night shift. Day shift runs from 5:45am to 6:00pm and night shift runs from 5:45pm to 6:00am. The 15 minutes of overlap is used for shift handover.

Schedules may be adjusted to serve operational needs at the supervisor's discretion but will always take fatigue mitigation into account. All shift rotations shall permit a controller at least eight hours of continuous sleep between scheduled shifts. Controller hours of service will be limited to sixty-five (65) hours in any sliding 7-day period. All hours of work performed for IGU, regardless of job and including shift handover, count towards the controller's hours of service...

...Hours of service as a controller must also be tracked for individuals who serve as a backup if needed. ”



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This schedule has been in effect since March 19, 2024, and was routinely reviewed by PHMSA as part of the reporting requirements as a condition of a Consent Agreement resulting from CPF 4-2023-006. The plan also includes provisions for monitoring hours of service for backup controllers. A copy of the current schedule is available below. Actual hours of service are logged via timecards and schedule changes are reviewed by supervisors prior to approval.

Control Room Schedule beginning March 29th, 2024															
Shift	Hours	Sun	M	T	W	T	F	Sat	Sun	M	T	W	T	F	Sat
Day Shift	0545-1800	1	1	1	1				1	1	1				
						2	2	2				2	2	2	2
Night Shift	1745-0600	3	3	3	3				3	3	3				
						4	4	4				4	4	4	4

4. § 192.631 Control room management.

(a) ...

(d) **Fatigue mitigation.** Each operator must implement the following methods to reduce the risk associated with controller fatigue that could inhibit a controller's ability to carry out the roles and responsibilities the operator has defined:

(1) ... (4) Establish a maximum limit on controller hours-of-service, which may provide for an emergency deviation from the maximum limit if necessary for the safe operation of a pipeline facility.

IGU's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, a review of IGU's GCP revealed it was unclear regarding the establishment of a maximum limit on controller hours-of-service.

During the inspection, PHMSA reviewed IGU's GCP. Within the Fatigue Mitigation and Scheduling section, the plan stated that controller hours of service would be limited to 65 hours in a sliding seven day period and that all work performed for the operator, regardless of what functions the controller performed would be counted as part of the 65 hours. PHMSA observed that the plan also required that a controller was not to work for more than 14 consecutive hours during normal operating conditions in a 24 hour sliding period. However, the plan also stated that "[i]n the event a controller is required to exceed the consecutive hourly limitation or exceed 16 hours in a single shift, a Deviation Form shall be filled out and approved by the Director of Operations or their designee."

This language was unclear if all deviations, including the exceeding of 65 hours in any 7 day sliding day period needed to be recorded on a Deviation Form, or if it was only referencing the requirement to not exceed 14 consecutive hours in a 24 hour sliding period. In addition, the language of the Gas Control Plan was unclear if 14 or 16 hours was the correct maximum consecutive hours of service in a 24 hour sliding period.

Accordingly, PHMSA proposes that IGU must amend its written procedures to provide clarity on maximum hours of service and how deviations of these hours would be documented.

IGU Response:

The Gas Control Plan(Appendix C) has been amended to clarify these requirements with the procedures below:



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“The number of consecutive hours under normal operating conditions should not exceed 14 hours worked in a 24-hour sliding period. If this limit is reached and operations allow it, a minimum period of 24 hours between shifts will be provided. Hours of service as a controller must also be tracked for individuals who serve as a backup if needed.

In the event a controller is required to exceed the consecutive hourly limitation or exceed 14 hours in a single shift, a Deviation Form shall be filled out and approved by the Director of Operations or their designee. Other controllers may be contacted to relieve a controller exceeding the hourly limitation. Special attention shall be made to ensure the opportunity for 8 hours of continuous sleep is made available to all controllers.”

Please let us know if these revisions are acceptable to address the concerns raised.

Sincerely,

A handwritten signature in black ink that reads "George Deal".

George Deal
Director of Operations