

Rec'd 12/20/12

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17 December 2012

Re: Notice of Amendment, CPF 5-2012-5018M

Mr. Dennis Hinnah
Deputy Director, Western Region
Pipeline and Hazardous Materials Safety Administration
188 W. Northern Lights Blvd., Suite 520
Anchorage, AK 99503

Dear Mr. Hinnah:

Reference PHMSA's Control Room Management inspection held at Kuparuk 24-26 July 2012 for the Kuparuk and Oliktok pipelines. We have received the Notice of Amendment (NOA) dated 3 December 2012 concerning NSPL-0000-PL-5407, Controller Shift Management. We agree with the requirements set forth in your letter; the three items noted in the NOA were addressed during the inspection, and the revised procedure published on 7 August 2012. The latest published revision of NSPL-0000-PL-5407 is attached. A brief description of each resolution follows.

1. NSPL-0000-PL-5407 has been amended as follows to indicate that all work performed by a Controller is included in hours of service:

Section 2.2.1, has been revised to include: "Any hours worked by personnel in the Controller role are included in shift length determination including training, other area assignments, etc." Section 2.2.2 has been revised to include: "On any specific hitch, an Operator cannot work in a Controller role if the Operator has exceeded 21 shifts without the required R&R (see 2.2.3)."

Section 2.2.2 has been revised to remove: "Any time a Controller works one or more shifts in a different duty role, the consecutive shift counts as a Controller reverts to zero."

2. NSPL-0000-PL-5407, Section 2.2.3 has been amended to remove "In the event of an exception to this requirement, the Exception Approval process must be followed."

Section 2.2.3, Time Off Between Hitches (R&R), now reads: "Based on the standard schedule, the break between hitches is typically equivalent to the number of shifts worked (i.e., 14 days at work followed by 14 days of R&R). However, in the event a Controller works an extended hitch (max 21 shifts) Controller is required to take a

minimum of 3¹ days R &R prior to returning as a Controller.”

¹ The 3 days account for travel time from the Slope to Anchorage and provides the Controller the opportunity to achieve three full sleep cycles.

3. NSPL-0000-PL-5407, Appendix A, Exception Process Approval Form has been amended to read: “This form should be used to document the approved decision to allow Controller work shifts in excess of 18 hours, hitches in excess of 21 days, or instances of less than 3 days off between Controller hitches. It should be used on a case by case basis and only in emergency situations, in advance of the shift exceptions. Reasons for exceptions are limited to inclement weather, sudden illness, road access or facility or pipeline emergency event. Shift exceptions are not appropriate for training or business needs. In all cases, Controllers must be provided an opportunity of 8 hours of sleep between shifts.”

Please call Ann Peltier (907-263-4329) or me if you have questions or comments.

Sincerely,



Barry Romberg

Engineering and Operations Manager

Attachment

NSPL-0000-PL-5407, Controller Shift Management (10 pages)

cc: *via email*

Bijan Agarwal, VP Commercial Assets, Alaska

Stephen Bradley, GKA Operations Manager

Rita Lovett, Legal Counsel

Dennis Melton, CPF3 Operations and DOT Pipelines Superintendent

Bruce Novinska, Regulatory Compliance Coordinator

Ann Peltier, DOT Program Coordinator

NSK Pipeline Coordinators

Bill Flanders, PHMSA

Location: GKA / WNS		Facility: DOT REGULATED PIPELINES	
Section: COMMON		ADMINISTRATION - MISCELLANEOUS	
Document Name: CONTROLLER SHIFT MANAGEMENT			
Document Number: NSPL-0000-PL-5407			

DOCUMENT SUMMARY

Federal regulations require the Pipeline Operator to implement specific measures to reduce the risk associated with Controller fatigue that could inhibit a Controller’s ability to carry out designated roles and responsibilities. These measures include establishing shift lengths and schedule rotations that provide sufficient off duty time for Controllers to achieve eight hours of continuous sleep. Associated procedures may provide for an emergency deviation from the maximum shift limit if necessary for the safe operation of a pipeline facility. This procedure describes the Controller shift management process used by CPAI to address this aspect of Controller fatigue mitigation.

Procedure Effective Date: August 1, 2012

1. RESPONSIBILITIES

1.1. CPF3 OPERATIONS SUPERINTENDENT

- Establish shift length and rotation plans that comply with the applicable regulations and ensure safe operation of pipeline facilities.
- Ensure adequate staffing and shift planning to enable shift management plans to be implemented as intended.

1.2. CPF3 OPERATIONS SUPERVISOR/ WNS OPERATIONS AND MAINTENANCE SUPERINTENDENT

- Develop and manage the Controller shift schedule to ensure compliance with applicable regulations. (CPF3 Only)
- Document and approve and any deviation from standard maximum shift limits as pursuant to the Exception Process as defined below.

1.3. CPF3 FACILITY LEAD OPERATOR/ ALPINE LEAD OPERATOR

- Develop and manage the Controller shift schedule to ensure compliance with applicable regulations. (Alpine Only)
- Monitor Controller staffing and schedule, and consult with Operations

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Supervisor/WNS Operations and Maintenance Superintendent in the event the Exception Process is necessary for safe operation of Pipeline Facilities.

- Observe Controllers for signs of fatigue or other impairments.
- Provide relief in the event a Controller requires re-energizing and/or secure longer term relief if necessary.
- Ensure that any personnel providing relief are qualified and in compliance with shift management requirements when stepping into Controller duties.
- Ensure that the Exception Process is followed if safe pipeline operations require Controller schedule to deviate from specified limits.
- Complete the Exception Process Approval Form when required and coordinate Exception Process approval with the Operations Supervisor (or WNS O&M Superintendent).
- Review any Exception Process approval with Controller(s) and assist with the identification and prevention of Controller fatigue.

1.4. CONTROLLER

- Work within the planned shift schedule unless otherwise documented and approved pursuant to the Exception Process.
- Monitor working hours and notify the Facility Lead Operator of any factors that could affect shift length. (i.e. agreeing to work additional hours outside the Facility, in addition to Controller shift)
- Arrive at work for planned schedule and shifts fit for work.
- Self monitor for fatigue and employ mitigation tactics.
- Provide timely notification to the Facility Lead Operator and or other supervisory personnel (i.e. Operations Supervisor/WNS Operations and Maintenance Superintendent) regarding planned and unplanned absences to facilitate backfill management.

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- Provide immediate notification to the Facility Lead Operator and or other supervisory personnel (i.e. Operations Supervisor/WNS Operations and Maintenance Supervisor) in the event Controller is unfit to assume responsibility as Controller at the time of shift (i.e. excessive fatigue, illness) or becomes unfit to function as Controller during the course of a shift.
- Accurately record hours of service in time sheet records.

1.5. ALPINE AND KUPARUK PIPELINE COORDINATOR

- Monitor Exception Process Approval Forms upon completion.

2. PROCEDURES

2.1. GENERAL

The “Colville River Unit” (CRU) and “Kuparuk River Unit” (KRU), which provide the support base for the Alpine and Kuparuk pipeline systems respectively, are remote oil production facilities located approximately 900 miles north of Anchorage, Alaska. The production units function essentially as stand-alone service areas, furnishing all essential services to on-site workers (i.e. meals, housing, housekeeping, transportation, recreation, medical, and other supporting infrastructure). Drug and alcohol use in the work locations is strictly prohibited. Workers access the work locations through regularly scheduled charter aircraft flights provided by the unit operator in each location. Due to the remote location and associated logistics, workers participate in a shift schedule with shifts and work schedules that may be longer than those found in a more conventional work location. The short on-site travel distances and the wide range of available support and services aid in mitigating the longer shift schedule.

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2.2. CONTROLLER SHIFT MANAGEMENT

The Control Rooms at Alpine and CPF3 are staffed by Controllers full time. CPAI recognizes that shift management is an important component of minimizing fatigue and potential sleep debt for Controllers.

2.2.1. Shift Length

Under normal operations, the typical Controller shift length is 12 hours, however, at times, due to operational needs, a Controller may be required to work additional hours in a shift. To ensure a minimum of eight hours continuous sleep is available to the Controller during each off-shift rest period, Controller shifts should not exceed 15 hours in duration (including change over time). A Controller who works more than 12 hours should focus on maintaining adequate rest during each off shift. Any Controller working a shift 15 hours in length must specifically minimize activities that would impact the eight hour sleep in the off shift. Any hours worked by personnel in the Controller role are included in shift length determination including training, other area assignments, etc. The maximum shift length is 18 hours. Only in rare cases, such as extreme weather, will this shift length be extended.

If hours in excess of 15 hours are worked by a Controller, but the Controller’s shift start and end times are adjusted to ensure a minimum of eight hours continuous sleep during the off shift period, the Exception Process is not required (i.e., an 18 hour shift followed by a delayed start time on following shift).

At times, there may be planned or unplanned circumstances which make it necessary for a Controller to temporarily work a shift longer than 18 hours. Reasons for exception are limited to: Inclement weather; unplanned absence of a co-worker (i.e. sudden illness or family emergency); or road access or facility or pipeline emergency event. Shift exceptions are not appropriate for training or business

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needs.

In each case where a Controller will be working a shift or a series of shifts in excess of 15 hours, countermeasures should be employed as shown in the “Fatigue Identification & Mitigation” and “Control Room Ergonomics and Fatigue Mitigation” training modules. At no time will a Controller be allowed to work as a Controller without having the opportunity for 8 hours of sleep prior to shift. .

2.2.2. Work Schedule (“Hitches”)

The standard Controller work schedule (“hitch”) length is 14 consecutive shifts; however, hitches up to 21 shifts in length are also acceptable under CPAI policy. On any specific hitch, an Operator cannot work in a Controller role if the Operator has exceeded 21 shifts without the required R&R (see 2.2.3). In the event of an emergency to ensure the safe operation of the pipeline the Exception Process shall be utilized.

2.2.3. Time Off Between Hitches (R&R)

Based on the standard schedule, the break between hitches is typically equivalent to the number of shifts worked (i.e., 14 days at work followed by 14 days of R&R). However, in the event a Controller works an extended hitch (max 21 shifts) Controller is required to take a minimum of 3¹ days R &R prior to returning as a Controller.

2.2.4. Exception Process

The decision to allow Controller shifts in excess of 18 hours or work more than 21 consecutive shifts as a Controller is managed through the Exception Process, and documented on the Exception Process Approval Form (Appendix A). The Exception Process ensures that, prior to approval of extended Controller work time,

¹ The 3 days account for travel time from the Slope to Anchorage and provides the Controller the opportunity to achieve three full sleep cycles.

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supervisory personnel review the situation and confirm that the exception is necessary in support of safe pipeline operations. In some cases, it may be determined that it is more prudent to secure additional staffing than extend the hours of existing Controller(s). The Exception Process also ensures that supervisory personnel and Controllers discuss the purpose and planned duration of the extended work time, potential fatigue risks, and additional fatigue mitigation measures related to the exception.

The Exception Process Approval Form shall be completed (including authorizing signatures) prior to any exception. The form must be completed on a case by case basis, but may be written to include one or more Controllers over one or more shifts, as long as the type and reason for the exception are the same (i.e. same type of exception and related to the same event). If there are different types of exceptions occurring as part of the same event (i.e. shift, hitch and/or R&R impacts), or multiple events, each must be documented separately.

The Exception Process Approval Form shall be initiated by the Facility Lead and approved by the Operations Supervisor/WNS Operations and Maintenance Superintendent. The Facility Lead shall ensure the completed Exception Process Approval Form is reviewed and discussed with each affected Controller prior to the start of their work under the exception. The Exception Process Approval Form must be reviewed with the affected Controller(s) to ensure the Controller(s) clearly understand risks of fatigue and fatigue mitigation measures.

The completed Exception Process Approval Form serves as required documentation of exceptions under applicable regulations. The completed Exception Process Approval Form shall be maintained in Setcim/IP21 for a minimum of three years.

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2.2.5. General Guidelines

Controllers and Supervisors receive targeted training to identify and prevent the effects of fatigue. Controllers and Supervisors are also trained and educated in fatigue mitigation strategies and how off-duty activities contribute to fatigue. This training is further described in NSPL-0000-5404 Controller Training Program.

Controllers are encouraged to observe appropriate practices such as periodic breaks, stretching, and healthy snacks to abate fatigue as needed throughout normal and extended work shifts. Studies have identified that the periods between 2:00 am to 6:00 am for night shift and 1:00 pm to 3:00 pm for day shift as common times when workers experience reduced alertness. In addition to routine breaks, it may be necessary to practice additional re-energizers during these phases of the shift. Special care should be exercised in ensuring adequate rest occurs during transitions between day and night shift work. Controllers are advised to inform the Facility Lead immediately in the event fatigue or another personal condition is impacting the Controller’s ability to work safely so relief can be provided.

2.3. DOCUMENTATION

A Pipeline Operator must retain records that demonstrate compliance with applicable requirements, including any documentation that deviation from required procedures was necessary for the safe operation of the pipeline facility. These records must be available for review in the event of an agency inspection.

2.4. RETENTION

Exception Process Approval Forms will be filed for a minimum of three years from the date of generation in the Setcim/IP21 data historian. This documentation will be recalled as needed. Controller time sheets will be maintained electronically in SAP for a minimum of three years. This documentation will be recalled as needed.

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3. REFERENCES

3.1. RIGHT-OF-WAY LEASE REFERENCES

Alpine	Kuparuk ²	Requirement / Stipulation
NA	NA	

3.2. COMPANY REFERENCES

	US Time Recording and Approval Policy
	North Slope Work Schedules Policy
	WNS Overtime Guideline
NSPL-0000-5404	Controller Training Program

(End of Document)

² Kuparuk and Oliktok pipelines

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Appendix a: exception process approval form

(Template- On Line Tool)

<p>This form should be used to document the approved decision to allow Controller work shifts in excess of 18 hours, hitches in excess of 21 days, or instances of less than 3 days off between Controller hitches. It should be used on a case by case basis and only in emergency situations, in advance of the shift exceptions. Reasons for exceptions are limited to inclement weather, sudden illness, road access or facility or pipeline emergency event. Shift exceptions are not appropriate for training or business needs. In all cases, Controllers must be provided an opportunity of 8 hours of sleep between shifts.</p>	
Date(s) Proposed Exception:	Location:
Controllers Affected:	
Nature of exception (circle): shift length hitch length break between hitches	
Anticipated duration of extra shift hours/hitch length or duration of break between hitches:	
Reason for exception:	
Facility Lead has confirmed affected personnel ready and willing to work over? Y N	
Identify/discuss any special considerations for the affected period (i.e. availability of other qualified personnel for break relief, current activity level for Controller, special projects, any personal limitations, etc.)	
Fatigue prevention measures for this exception: (i.e. more frequent breaks, rotating qualified personnel in Controller duties, exercise breaks, etc.)	
Approvals:	
_____ Facility Lead	_____ Date
_____ Ops Supervisor	_____ Date
Complete form on line. Facility Lead shall review the completed form including fatigue prevention measures with each affected Controller. Official record copy is on line (IP21/Setcim).	

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REVISION/APPROVAL LOG

Revision/Approval Log				
Rev. No.	Date	Action	By	
0	7/24/11	Initial Issuance	S. Donnelly	
Rev. No.	Date	Action	OQ Reviewed	By
1	9/28/11	Clarified CPF3 vs. Alpine Schedule Management	NA	S. Donnelly
2	11/11/11	Added reference to 49 CFR 195.446 (a) and 49 CFR 195.402 (c) (15)	NA	S. Donnelly
3	8/7/12	Clarified section 2.2, Controller Shift Management, regarding shift length, work schedule, time off between hitches, and exception process; updated Apd A to reflect these changes.	N/A	ALP/NSK Pipeline Coordinators
4	9/10/2012	Move DOT References to NSPL 5502 Remove TOC Fix CPF3 Superintendent name	N/A	Dan Schmidt R. Scott