

NOTICE OF AMENDMENT

VIA ELECTRONIC MAIL TO: david.slater@dtmidstream.com;
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May 12, 2022

Mr. David Slater
DTE Midstream Appalachia, LLC
President/CEO
50 Woodward Avenue, Suite 2900
Detroit, MI 48226

CPF 3-2022-046-NOA

Dear Mr. Slater:

From August 23 to August 27, 2021, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, inspected DTE Midstream Appalachia Birdsboro Pipeline, LLC's (DTM) procedures for Control Room Management (CRM) procedures and records in Detroit, Michigan.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within DTM CRM plans or procedures, as described below:

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 of 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:

(b) *Roles and responsibilities.* Each operator must define the roles and responsibilities of a controller during normal, abnormal and emergency operating conditions. To provide for a controller's prompt and appropriate response to operating conditions, an operator must define each of the following:

DTM procedures were inadequate to define the limit of a controller's roles and responsibilities in the operation of systems presented on the various consoles. The procedures defined console asset and facility assignments. However, when a controller logged in to SCADA he had access to all control room console assets, in addition to the one he is assigned to work. The Principal or Senior Controller has access to view all alarms and monitor all systems. While the controllers "understood" they are to only operate the systems on their assigned console, either language needs to be added to disallow controllers from operating or responding to alarms on another console, or the SCADA system needs to be set up to disallow access beyond the assigned controller console.

2. § 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 of 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:

(b) Roles and responsibilities. Each operator must define the roles and responsibilities of a controller during normal, abnormal and emergency operating conditions. To provide for a controller's prompt and appropriate response to operating conditions, an operator must define each of the following:

(1)

(5) The roles, responsibilities and qualifications of others with the authority to direct of supersede the specific technical actions of a controller.

DTM's procedure GCCRM-305 Rev 1.4 5/6/2021 and CRM Plan July 19, 2021 Version 3.2 was inadequate because it stated "No individual has the authority to supersede the Senior/Principle Gas controller on shift. The Gas Controller who has worked the longest as a Senior or higher in DTM's Gas Control has ultimate authority." The procedure was silent on the controllers who are not senior or principle levels. It does not address whether anyone can supersede them. Nor does the procedure address whether the Senior/Principle Controller can supersede the lower level controllers. There is no indication that consideration has been given to who can supersede or direct the controller. The operator indicated that the procedure assumes the senior can supersede or direct the controller.

Additionally, the procedure left the assumption that the senior/principle controller is qualified. The procedure did not include the events that would lead or require superseding a controller or how that would be documented.

The procedure needs to be amended to clearly define who can supersede the specific technical actions of all controllers, their qualifications, conditions under which these actions can occur, and how the events will be documented.

3. § 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 of 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:

(c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:

(1) Implement sections 1, 4, 8, 9, 11.1, 11.3 of API RP 1165 (incorporated by reference, see §192.7) whenever a SCADA system is added, expanded or replaced, unless the operator demonstrates that certain provisions of sections 1, 4, 8, 9, 11.1 and 11.3 of API RP 1165 are not practical for the SCADA system used.

DTM's CRM Plan Section 402 was not adequate because it did not define addition, expansion, or replacement of a SCADA system that would require implementing the required sections of API RP 1165 in § 192.631(c)(1). The language of this section restated the regulation. Three examples provided were : upgrade to a different operating system that affects display parameters, replace/addition of workstations that effect display parameters, new drawing tool for displays that affect display parameters. When DTM acquired AGS/SGG they employed a different SCADA system. DTM chose to design the new screens for the acquired assets and add them to their SCADA system rather than bring the different SCADA system and screens into their control room. Their examples did not cover this type of event nor others that have nothing to do with display parameters.

The procedure needs to be amended to include definitions of add, expand and replace in addition to examples of these events.

4. § 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 of 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:

(e) Alarm management. Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. An operator's plan must include provisions to:

(1) Review SCADA safety-related alarm operation s using a process that ensures alarms are accurate and support safe pipeline operations;

DTM's procedures were inadequate because they did not have a specific process to define when and how to identify and correct inaccurate or malfunctioning alarms. In practice they utilized the Defect Log to track SCADA related alarm issues once identified. The Training Plan section 1600 described that this log should be used, however, there are no other instructions or procedures on how to manage the content of the log. The log had an indicator for whether the issue was resolved or not. There were several entries that did not indicate they were resolved. Due to the observed unresolved issues, the operator was asked if they periodically review the outstanding issues. The operator answered they "do not look at this as often as they should." It was unclear if there was a connection back to Birdsboro Pipeline to track the "tickets" created from the control room to their maintenance group. DTM's control room, in practice, is using the Defect Log. Birdsboro and DTM's field maintenance groups may use JIRA and Gensuite, respectively, for field tracking.

The procedure needs to be amended to include a process to handle inaccurate and malfunctioning alarms, as well as other deficiencies, to make sure they are identified and corrected. The procedure needs to include the logging requirement, as well as any connection to the field maintenance work ticket process and follow-up reviews to ensure issues and deficiencies are identified corrected as quickly as possible.

5. § 192.631 Control room management.

(a) General. This section applies to each operator of a pipeline facility with a controller working in a control room who monitors and controls all of 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:....

(e) Alarm management. Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. An operator's plan must include provisions to:

(1) Review SCADA safety-related alarm operation using a process that ensures alarms are accurate and support safe pipeline operations;

DTM's procedures were inadequate because, while they stated in the Roles and Responsibilities section, to what degree controllers could change alarm limits or set points, inhibit alarms, or take points off-scan, the procedure did not include how a controller would suggest, submit or request changes if they thought it was necessary to ensure alarms are accurate and support safe pipeline operations, as well as managing the changes to pipeline alarm configurations.

The procedure needs to be amended to include a method of requesting and documenting change requests to alarm configurations outside those changes authorized by procedure.

6. § 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 of 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:

(e) Alarm management. Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms. An operator's plan must include provisions to:

(1)

(6) Address deficiencies identified through the implementation of paragraphs (e)(1) through (e)(5) of this section.

DTM's CRM Plan was inadequate because there was no process for management review of the Alarm Response Log which documents various alarm deficiencies to verify remediation in a timely manner.

Section 603 of the CRM plan stated, "[A]larms classified as safety related shall be reviewed for stale or unreliable indication to Gas Control and an action plan for remediation to be created immediately upon discovery." TP-1 Section 1.4, 1.5, 1.6, 2.0 and 3.0 related to actions required for various types of Loss of Communication. Section 603 does not reference TP-1 to tie stale and inaccurate alarms to loss of communication action. It is not clear if the "action plan for remediation" is defined by TP-1.

TP-1 requires the controller to document in the Alarm Response Log several types of alarms that may be encountered. The Training Plan, in section 2c, included a requirement for discussion of the Alarm Response Log. However, there was no process for management review of the Alarm Response Log information to review the status for repair or remediation, frequency or length of time for repairs.

The procedure needs to be amended to include how the Alarm Response Log, or other methods, supports the action plan for remediation of alarms reported to the Log. It must also include roles and responsibilities to define who is responsible to review the logs on a periodic basis to ensure remediation is scheduled and completed. The procedure also needs to include the name of the person responsible to document the completion of a remediation task. This process also needs to be included in the training program.

7. § 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 of 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:

(f) Change management. Each operator must assure that changes that could affect control room operations are coordinated with the control room personnel by performing each of the following:

(1) Establish communications between control room representatives, operator's management, and associated field personnel when planning and implementing physical changes to pipeline equipment or configurations.

DTM's procedures were inadequate to ensure changes in field equipment that could affect control room operations are coordinated with the control room personnel. Procedure BG-ENG-SO33F SWI Management for Change Request Instructions and Form did not include requirements to consider whether the change affected control room operations. The Control Center was not a choice in the list of affected groups.

DTM's Management Change Procedure needs to be modified to include consideration of the control room when changes are proposed.

8. § 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 of 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:

(f) Change management. Each operator must assure that changes that could affect control room operations are coordinated with the control room personnel by performing each of the following:

(1)

(2) Require its field personnel to contact the control room when emergency conditions exist and when making field changes that affect control room operations;

DTM's Field Procedures were inadequate because Procedure 739 Pressure Control Inspection did not indicate to call Gas Control prior to starting work. Other procedures did include requirements to call the control room: Procedure 745 Valve Inspection, Procedure 739 OPP Maintenance, the ESD procedure, and Fire Alarm and Gas Atmosphere procedures.

DTM needs to amend all field maintenance procedures, and any other procedures (measurement, SCADA, etc.), to include requirements to call the control room prior to start of work.

9. § 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 of 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:

(h) Training. Each operator must establish a controller training program and review the training program content to identify potential improvements at least

once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities define by the operator

DTM's training program was not adequate to provide a structure approach to train each controller to carry out the roles and responsibilities define by the operator.

DTM's training program identified the training content in section 200, which included computer-based courses, field visits, classroom training, reading lists, tabletop exercises, and on the job training (OJT) of control. The controller was provided an on-boarding packet that included the Required Reading Checklist and the Discussion Checklist. The Reading Checklist required a sign off when complete, and the Discussion Checklist is a combination of interrogatories related to system operations and procedures and task completions such as remotely open/close valve. Both must be completed for the controller to be considered ready for the next phase of training. This second phase of training focused on operating and monitoring the pipeline systems through a SCADA console and took approximately one year, at which point the trainee was eligible to take the OQ test.

What was missing from the training plan was a structured approach to training on the consoles. There was no plan for the controller to learn each unique system in a structured approach. For example, keeping a controller on one console until competency was achieved and then moving to the next. The controller was put into the operating mix with a 1:2 span of control mentoring and only a large operating document to reference some system operations related to alarm handling and select operations. The controller shift rotation rotated the controller through the various consoles. He may spend only two days on a console, then off two days then three days on another console. This training method leaves interpretation of how to develop critical knowledge of each system up to the controller.

Once the controller completed an 8-week training/orientation program they were assessed by the Discussion Checklist. Successful completion of this assessment moves the unqualified controller trainee into the shift rotation to operate one of the four consoles. There were no "how to" guides, alarm handling guidelines or operating procedures to support the controller training how to perform their roles and responsibilities under normal, abnormal, and emergency conditions. The controller training was unstructured OJT. One point of concern was that the operator did not have procedures for starting and stopping compressor stations remotely. It was shared that some compressor stations are manned and require the control room to start and stop compressors through direction to field employees. Other stations were capable of remote start and stop. 49 C.F.R. § 192.605 (a)(7) requires operators to have written procedures for "[S]tarting, operating, and shutting down compressor units." The operator did not develop procedures to address compressors. While for the local start and shut down stations it could be argued that the local field personnel have those procedures, the same argument cannot be made for the remote operated compressor stations. Adequate procedures would consider the different configurations of stations, types of compressors, and operating conditions to support the controller's roles and responsibilities when starting and stopping those facilities.

The procedures did not provide guidance for alarm handling that could be used as a training reference for controllers' consistent safe response to alarms. Instruction for this activity was delivered orally by the qualified controller trainer.

The training plan Required Reading Checklist did not include DTM/Birdsboro Pipeline Emergency Plan which is different from DTM's emergency plan.

During the inspection, the operator shared a PowerPoint that reviewed storage summer mode operations and various winter settings, including max withdrawal. There was nothing in the training to help the controller refer to this information; controllers relied on Senior Controllers to provide this information.

The procedure must be amended to provide a structured training plan for each console operating system(s), as well as assessments for the controller on each console. Procedures must be developed and controllers trained, that address compressor start up, operation, and shut down for both manual starts/stops and remote starts/stop. Procedures also need to be developed to provide the controller training and guidance in alarm handling, especially considering that safety-related alarms can present as different priorities.

The operator indicated they were in the process of developing tests or assessments for each console to support evaluating the controller's progress. A procedure was also developed to address alarm handling.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. Enclosed as part of this Notice is a document entitled Response Options for Pipeline Operators in Compliance Proceedings.

Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. § 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. § 552(b).

Following the receipt of this Notice, you have 30 days to submit written comments, revised procedures, or a request for a hearing under §190.211. If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue an Order Directing Amendment. If your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.206). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 30 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested that DTM maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Gregory A. Ochs, Director, Central Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 3-2022-046-NOA** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Gregory A. Ochs
Director, Central Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

cc: Philip Coleman, Director Codes & Regulatory philip.coleman@dtmidstream.com

Enclosure: Response Options for Pipeline Operators in Enforcement Proceedings