



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety Administration**

901 Locust Street, Suite 480
Kansas City, MO 64106

NOTICE OF AMENDMENT

VIA ELECTRONIC MAIL TO: Luis.Sierra@novachem.com and
Arnel.Santos@novachem.com

October 8, 2020

Mr. Luis Sierra
President and CEO
NOVA Chemical (Canada), Ltd.
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Calgary, Alberta Canada T2P 5C6
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CPF 3-2020-5018M

Dear Mr.Sierra:

On July 12-18, 2019, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected NOVA Chemicals (Canada), Ltd.'s procedures for operation and maintenance (O&M), control room management (CRM), operator qualification (OQ) and integrity management (IM) in Marysville, Michigan.

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

1. **§195.452 Pipeline integrity management in high consequence areas.**
 - (a)
 - (h) What actions must an operator take to address integrity issues?

(1) General requirements. An operator must take prompt actions to address all anomalous conditions the operator discovers through the integrity assessment or information analysis. In addressing all conditions, an operator must evaluate all anomalous conditions and remediate those that could reduce a pipeline's integrity. An operator must be able to demonstrate that the remediation of the condition will ensure the condition is unlikely to pose a threat to the long-term integrity of the pipeline. An operator must comply with 195.422 when making a repair.

NOVA's Procedure 195.422 in its IM Plan is inadequate because it has not defined defect repair criteria and acceptable repair methods for identified defects. Procedure 195.422 references §195.452 as it relates to scheduling remediation and immediate, 60-day and 180- day conditions as well as instructions related to how to make repairs on the pipeline. For example, Section 21 of Procedure 195.422 provides instructions on how to install a Clock Spring® (composite sleeve) for a repair. Where the procedure falls short is in providing guidance on acceptable pipeline repair methods.

Section 195.3(c)(3) incorporates by reference, ASME/ANSI B31.4-2006, "Pipeline Transportation Systems for Liquid Hydrocarbons for Liquid Hydrocarbons and Other Liquids" for §195.452(h). Chapter 7, Section 451.6 of ASME/SNSI B31.4-2006 states "When assessing pipeline integrity each operator should develop criteria for evaluating anomalies identified through ILI methods, through visual inspection, or through other technical means." It also then goes on to say, "Defect repair criteria and repair methods are described below as a guideline for pipeline operators to use when addressing anomalies discovered on their pipelines in this standard." Table 451.6.2(b)-1 and Table 451.6.2(b)-2, Acceptable Pipeline Repair Methods, of ASME/ANSI B31.4-2006 lays out types of defects and acceptable repair methods for those identified pipeline defects. For example, a composite sleeve is an acceptable repair method for external corrosion equal to or less than 80%, but it is not an acceptable method or a defective girth weld. This differentiation as to what type of repair is acceptable for the type of defect is missing in NOVA's procedures. Without defect repair criteria and acceptable repair methods for the identified defect, NOVA does not meet the requirement of §195.452(h) to comply with §195.422(b), Pipeline repairs, which states "No operator may use any pipe, valve or fitting for replacement in repairing pipeline facilities, unless it is designed and constructions as required by this part."

NOVA needs to modify its procedures to define defect repair criteria and acceptable repair methods for identified defects.

2. §195.579 What must I do to mitigate internal corrosion?

(a) . . .

(c) Removing pipe. Whenever you remove pipe from a pipeline, you must inspect the internal surface of the pipe for evidence of corrosion. If you find internal corrosion requiring corrective action under §195.585, you must investigate circumferentially and longitudinally beyond the removed pipe (by visual

examination, indirect method or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

NOVA's Procedure 195.569, Internal and External Examination for Exposed Pipe, in its O&M manual is inadequate because it only provides instruction and guidance on how to inspect for external corrosion. There is no mention of examination for internal corrosion. Furthermore, NOVA Procedure 195.579 Internal Corrosion paraphrases directly from federal regulation with no additional guidance for how to inspect the pipe, how to record and document the inspection and any findings, and directions for repairs if needed.

NOVA needs to modify both procedures 195.569 and 195.579 to address the deficiencies described above.

3. §195.446 Control Room Management

(a) . . .

(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) . . .

(4) A method of recording controller shift-changes and any hand-over of responsibility between controllers.

NOVA's procedure for recording controller shift-changes and hand-over of responsibility between controllers is inadequate because it fails to provide the method of recording the discussion between controllers, pipeline conditions, physical asset changes, emergency conditions and other items identified in Section 5 of API 1168 (incorporated by reference in §195.446(c)(5)). Section 4 of NOVA's CRM Plan provides the procedures to comply with 195.446 Control Room Management. Within Section 4, operating procedures CO-00011 and CO-00013, as well as a shift turnover reference established for use at shift turnovers, are provided as reference and additional guidance for shift turnover. While a review of these procedures would provide general guidance of how to perform a shift change between controllers, the procedures does not include specifics for the method of recording controller shift changes and what was handed over from the leaving controller to the arriving controller.

As a recommendation from the 2017 CRM inspection, NOVA implemented an activity task key in the supervisory control and data acquisition that logs the event "TRANSFER CONTROL TO NEW CONTROLLER". This new feature provides a time stamp record of the transfer of system control from one controller to another. This required action is not described in procedure in either Section 4 of the CRM plan or CO-00011 or CO-00013 (CO-00011 is a training procedure for shift change). Since this is the official time stamp of control transfer, it needs to be included in all associated procedures.

NOVA also includes in Section 4 of the CRM Plan a “Turnover Reference” that is used as suggested topics controllers. These topics relate to Section 5 of API 1168 as required by §195.446(c)(5). TIPS Learning Guide Resources OO-00011 provides details of what to include during shift turnover. However, there is no process defining the method of recording what exactly was discussed at shift turnover and what the pipeline conditions were at the time of turnover. This lack of method also results in no record of the content of the exchange.

NOVA indicated that a white board “shift starter board” is used during shift change to guide the discussion. The controllers may take pictures of these to document the conditions. This activity is not defined in any procedures. Additionally, it was not evident that the “shift starter board” met the requirements of implementing API 1168 Section 5.

NOVA needs to amend procedures to include their methods of recording shift-change practices and the content and detail of discussions between the controllers during shift change that produces a record for future inspection.

4. §195.555 What are the qualifications for supervisors?

You must require and verify that supervisors maintain a thorough knowledge of that portion of the corrosion control procedures established under §195.402(c)(3) for which they are responsible for insuring compliance.

NOVA did not have a procedure that require and verify that supervisors maintain a thorough knowledge of corrosion control procedures established under §195.402(c)(3) for which they are responsible. A result of having no procedure, NOVA has not developed criteria to establish the levels of knowledge of corrosion control procedures for its supervisors, as well as a method to verify a supervisor’s compliance with the established criteria.

NOVA needs to develop a procedure to comply with §195.555, which includes criteria to establish levels of knowledge and experience of corrosion control procedures for its supervisors and a method to verify a supervisor’s compliance with the established criteria.

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 NOVA Chemicals (Canada), Ltd. maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Allan Beshore, Director, Central Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 3-2020-5018M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

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

Enclosure: *Response Options for Pipeline Operators in Enforcement Proceedings*

cc: Arnel Santos, Sr. Vice President Operations, NOVA Chemical (Canada), Ltd., 1000 7th Ave. S.W., P. O. Box 2518, Calgary, Alberta Canada T2P 5C6,
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