



Public Service Commission
State of North Dakota

COMMISSIONERS

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Julie Fedorchak
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600 East Boulevard, Dept. 408
Bismarck, North Dakota 58505-0480
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January 28, 2020

Mr. Bret Taylor, Fire Claims Team Manager
State Farm Fire and Casualty Company
304 East LaSalle Drive
Bismarck, ND 58503

Re: Case No. GS-19-385

Dear Mr. Taylor:

We received a letter from you dated January 20, 2020, requesting a copy of the report compiled by Public Service Commission staff regarding a fire that occurred on January 4, 2019 at 5220 12 St. South, Fargo, ND.

On January 5 and January 7, 2019, Staff conducted an Incident Investigation at 5220 Building C, 12th St South, Fargo, ND. As a result of that inspection, two probable violations were identified. Please find attached, a copy of the PSC's Notice of Probable Violation and the Incident Investigation report.

If you have any further questions, please contact me.

Sincerely,

Caleb Simburger, Program Manager
ND Gas Pipeline Safety Program
701-328-4056

Enclosure

January 20, 2020

Patrick Fahn
ND Public Service Commission
600 East Boulevard Ave.
Dept. 408
Bismarck, ND 58505-0480

State Farm Claims
PO Box 106169
Atlanta GA 30348-6169

RE: Claim Number: 34-7191-X82
Date of Loss: January 4, 2019
Our Insured: Andrew Schaeffer

Dear Mr. Fahn:

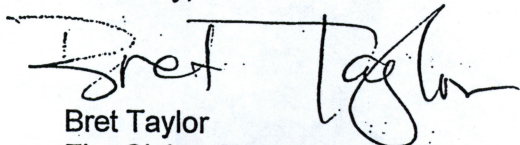
State Farm Insurance is requesting a copy of the report compiled by your Analyst, Aaron Morman, regarding a natural gas fire that occurred on January 4, 2019, at 5220 12 St. South, Fargo, ND 58104. Your case number is: GS-19-385.

The purpose of our request is to document a subrogation claim being filed against the responsible party, Xcel Energy. We have paid four separate claims for fire and/or smoke damage for tenants of the property who had renter's insurance policies with State Farm Insurance.

The report can be sent to my attention at 304 East LaSalle Drive, Bismarck, ND 58503 or emailed to bret.taylor.i9g3@statefarm.com.

Thank you for your attention to this matter.

Sincerely,



Bret Taylor
Fire Claims Team Manager
(701) 240-7670

State Farm Fire and Casualty Company

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

**Public Service Commission
Northern States Power Company
Pipeline Safety Enforcement**

Case No. GS-19-385

NOTICE OF PROBABLE VIOLATION(S)
December 19, 2019

Under North Dakota Century Code section 49-02-01.2, Public Service Commission staff (Staff) conducted an Incident Investigation. Two probable violations of the Public Service Commission's (Commission) gas pipeline safety regulations were identified.

DATE OF AUDIT:

January 5 and 7, 2019

TYPE OF AUDIT:

Incident Investigation

LOCATION OF AUDIT:

Riverview Place- 5220 Building C & 5210 Building B
12th St South
Fargo, ND

PSC STAFF:

Aaron Morman, Inspector

OPERATOR'S AUDIT CONTACT PERSON:

Lisa Kallberg
651-229-2282

PROBABLE VIOLATION NO. 1

AUDIT FINDINGS:

Service regulator and relief vents were not located where gas from the vents could escape freely away from any opening into the building.

PIPELINE SAFETY REGULATION IN EFFECT AT TIME OF PROBABLE VIOLATION:

49 CFR Part 192.355: Customer meters and regulators: Protection from damage.

(b) Service regulator vents and relief vents. Service regulator vents and relief vents must terminate outdoors, and the outdoor terminal must —

(2) Be located at a place where gas from the vent can escape freely into the atmosphere and away from any opening into the building.

EVIDENCE:

- Exhibit #1 – Photograph at 5220 12th St South, Fargo - Building C, showing regulator vent piping not vented freely to the atmosphere and away from openings into the building.
- Exhibit #2 – Photograph at 5220 12th St South, Fargo - Building C, showing a close-up view of gas meter regulator and vent piping.

PROPOSED CIVIL PENALTY

Proposed Civil Penalty: \$10,000.00

Any person who violates a rule or order of the commission pursuant to section 49-02-01.2 is subject to a civil penalty under 49-07-05.1, to be imposed by the commission of not to exceed two hundred thousand dollars for each violation for each day that the violation continues, except that the maximum penalty may not exceed two million dollars for any related series of violations.

COMPLIANCE ACTION:

By January 20, 2020, provide to the Commission:

- Documentation showing the installation of gas regulator and vent piping and relief vent piping that allows gas to escape freely to the atmosphere and away from any opening into the building located at: Riverview Place - 5220 Building C 12th St South, Fargo, ND.
- Documentation (current O&M Plan or other) of the procedure for continuing surveillance of facilities to discover unauthorized changes in customer service installations.

PROBABLE VIOLATION NO. 2

AUDIT FINDINGS:

Customer service piping and fittings were not protected from atmospheric corrosion at Riverview Place, 5220 Building C & 5210 Building B 12th St South Fargo, ND.

PIPELINE SAFETY REGULATION IN EFFECT AT TIME OF PROBABLE VIOLATION:

CFR Part 192.479: Atmospheric Corrosion: General.

(a) Each operator must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.

(b) Coating material must be suitable for the prevention of atmospheric corrosion.

(c) Except portions of pipelines in off-shore splash zones or soil-to-air interfaces, the operator need not protect from atmospheric corrosion any pipeline for which the operator demonstrates by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will – (1) Only be a light surface oxide; or (2) Not affect the safe operation of the pipeline before the next scheduled inspection.

EVIDENCE:

- Exhibit #1 – Photograph at 5220 12th St S, Fargo - Building C, showing substantial atmospheric corrosion on customer service piping and fittings.
- Exhibit #3 – Photograph at 5220 12th St S, Fargo - Building C, showing substantial atmospheric corrosion on gas inlet and regulator vent piping.
- Exhibit #4 – Photograph at 5210 12th St S, Fargo - Building B, showing substantial atmospheric corrosion on gas inlet and regulator vent piping.

PROPOSED CIVIL PENALTY

Proposed Civil Penalty: \$2,000.00

Any person who violates a rule or order of the commission pursuant to section 49-02-01.2 is subject to a civil penalty under 49-07-05.1, to be imposed by the commission of not to exceed two hundred thousand dollars for each violation for each day that the violation continues, except that the maximum penalty may not exceed two million dollars for any related series of violations.

COMPLIANCE ACTION:

By January 20, 2020, provide to the Commission:

- The Respondent's procedure for inspecting and classifying atmospheric corrosion severity.
- A revised leak report form that contains a comment section for the inspector to describe the condition and/or classify the atmospheric corrosion.

RESPONSE OPTIONS:

Within 30 days of receipt of a notice of probable violation, the respondent must answer to:

Caleb Simburger, Program Manager
ND Gas Pipeline Safety Program
600 E. Boulevard, Dept. 408
Bismarck, ND 58505-0480

The respondent must answer in the following manner:

- (a) When the notice contains a proposed civil penalty--
- (1) If the respondent is not contesting an allegation of probable violation, pay the proposed civil penalty by certified check or money order made payable to "North Dakota Public Service Commission," and advise the Manager of the payment. The payment authorizes the Commission to make a finding of violation and to issue a final order.

- (2) If the respondent is not contesting an allegation of probable violation but wishes to submit a written explanation, information, or other materials the respondent believes may warrant mitigation or elimination of the proposed civil penalty, the respondent may submit such materials. This authorizes the Commission to make a finding of violation and to issue a final order.
 - (3) If the respondent is contesting one or more allegations of probable violation but is not requesting a hearing, the respondent may submit a written response in answer to the allegations; or
 - (4) The respondent may request an informal hearing with the Program Manager.
- (b) When the notice contains a proposed compliance order--
- (1) If the respondent is not contesting an allegation of probable violation, agree to the proposed compliance order. This authorizes the Commission to make a finding of violation and to issue a final order.
 - (2) Request the execution of a consent order under.
 - (3) If the respondent is contesting one or more of the allegations of probable violation or compliance terms, but is not requesting an informal hearing with the Program Manager, the respondent may object to the proposed compliance order and submit written explanations, information, or other materials in answer to the allegations in the notice of probable violation; or
 - (4) The respondent may request an informal hearing with the Program Manager.
- (c) Before or after responding in accordance with paragraph (a) or, when applicable paragraph (b) the respondent may request a copy of the violation report from the Program Manager. The Program Manager will provide the violation report to the respondent within five business days of receiving a request.
- (d) Failure to respond in accordance with paragraph (a) or, when applicable paragraph (b) constitutes a waiver of the right to contest the allegations in the notice of probable violation and authorizes the Commission, without further notice to the respondent, to find the facts as alleged in the notice of probable violation and to issue a final order.
- (e) All materials submitted by operators in response to enforcement actions may be placed on publicly accessible Web sites. A respondent seeking confidential treatment for any portion of its responsive materials must submit an application under North Dakota Administrative Code chapter 69-02-09.

COMMISSION ACTION

The Commission may issue an order without hearing if the operator contests a probable violation, contests a proposed compliance order, or contests a proposed civil penalty but does not request a hearing.

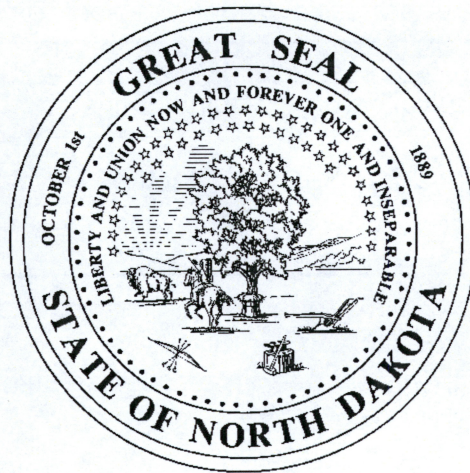
The Commission may issue an order after hearing.

A Commission order may:

- (a) Require the operator to complete compliance actions;
- (b) Impose a civil penalty; and
- (c) Suspend operation of the pipeline system.

**NATURAL GAS/LP INTRASTATE DISTRIBUTION/TRANSMISSION
INCIDENT INVESTIGATION**
NORTH DAKOTA PUBLIC SERVICE COMMISSION
SFN 19672 (1-95)

OPERATOR: Xcel Energy/Northern States Power
LOCATION: 5300 12th St South-River View Place - Fargo
DATE: January 4-5, 7 (Initial), 8 & 12, February 8, 2019 (follow-ups)
INSPECTOR: Aaron Morman ND PSC



COVERAGE: It should not be assumed that this investigation discovered all violations that could be involved. It should not be assumed that the recommendations, if followed, would insure compliance with the Code of Federal Regulations (49 CFR). In addition, remarks or recommendations are not to be construed as PSC orders. The reader is referred to the Code of Federal Regulations, 49 CFR, Parts 190, 191, 192, 40 and 199 for pipeline safety requirements.

OPERATOR INFORMATION:

Owner/Operator: Xcel Energy / Northern States Power of Northern MN (Xcel)

Mailing Address: 825 Rice Street, 1st Floor St. Paul, MN 55117

Telephone Number: 651-788-0648

Name/Title of Contact Person: Lisa Kallberg – Principal Consultant Gas Standards – 651-788-0648
Scott Ladwig - Field Operations Manager, Gas and Electric - P: 701-241-8621 C: 701-212-9356

Type of Operator (check box):

Private - NG
Private - LNG
Municipal - LP

Private - LP
Master Meter - NG

Date of Last Comprehensive Inspection: July 23-25, 2018

Date of Last Inspection: January 3, 2019 - Meter Set Inspection (Not at this location)

Operator's History of Violations Attached? Yes () No (X)

Were gas company's records searched for any information relating to the address involved prior to incident? If so, detail below (attach copies of all records pertinent to this investigation):

Inspector requested and received records of meter set and regulator readings and maintenance.

Does this pipeline have a FERC certification? No

INCIDENT INFORMATION: Who reported Incident (check box):

Jon Grogan – Xcel Energy Emergency Dispatch reported incident to Aaron Morman –
ND Public Service Commission Gas Pipeline Safety Inspector.

Facility environmental personnel, Julie Eiler, called 911 and from there the Fargo Fire
Department and Xcel Energy were notified.

DOT

NDDEM

Operator

Other Source

Who

How was Incident Reported (check box)

By Telephone
Other

By Pager

Time Incident Reported (mo/day/yr & local time):

January 4, 2019 / 8:48 PM CST from Jon Grogan, Xcel Energy Emergency Dispatch, to Aaron Morman of ND PSC – Gas Pipeline Inspector

Time Incident Occurred (mo/day/yr & local time):

Xcel received call at 6:42 PM CST

Location of Incident (lot no./street address/city/county/state):

5300 12th St South - Building C at 5220 12th St South, Fargo, Cass County, ND

Name/Title of On-Scene Coordinator:

James Garvey IAAI-CFI - Fargo (ND) Fire Department - Deputy Fire Marshall
637 NP Ave, Fargo, ND 58102 701-241-8135

Chris Rasmussen - Fargo Fire Chief on scene 1-4-2019

Lisa Lucas – Xcel Energy Team Lead Investigator (Arrived 1-5-19 at scene)
715-737-2662

Aaron Morman – ND Public Service Commission – Gas Pipeline Safety Inspector
Arrived on scene at 11:00 AM CST – January 5, 2019 701-220-5779

Names and Arrival Times of Gas Employees Dispatched to Scene:

Butch Olmschenk – Xcel Energy Gas Tech - 219-790-6789
Arrived at approximately 7:04 PM on 1-4-2019

Tony Coronato – Xcel Energy Lead Gas Tech Specialist – 701-371-5220
Arrived shortly after Butch Olmschenk 1-4-2019

HAS THE INCIDENT SCENE BEEN RENDERED SAFE? Yes

If so, what method was used (CGI/FI/barhole tested adjacent to around scene/emergency valve shut-down)?

Barholed – sniff tests every 10 feet in vicinity of Building B at 5210 12th St S and Building C at 5220 12th St S, Fargo.

Service Line was squeezed off to stop flow of natural gas:
 No.
 Valve was closed and locked out at gas meter supply line.

Has the area been evacuated?

The affected apartment units were evacuated prior to the Fire Department and fire investigator arriving on scene.

No residents were found during the primary search. Fire Alarm notification devices were activated.

13 units evacuated – estimate
 40 people evacuated – estimate

Size of Gas Line: 1 1/8" PE Plastic	Operating Pressure: 52 psig
Meter No./Index Reading: Meter No.: NSP 472678 Reading: 44807 Taken at 23:52 on 1/4/2019	Date Turned On: 3/15/2001 Cellnet module (remote meter reading device) was installed on January 10, 2012
Date of Last Reading: January 3, 2019	Index Reading Then: 44774 on 1/3/2019
Has odorization level been checked? Yes If so, when? January 5, 2019	

DAMAGE:

Estimated cost of damages: In excess of \$50,000.00

Do damages meet the definition of an Incident under 49 CFR Part 192: Yes

Take photos of the entire accident scene and label/list photos here (keep in mind that photos began with the "big picture", and narrow down to the "suspected area"):

Photo Number	Brief Description of Photo
<u>1</u>	<u>5220 Bldg C Mech Room Hallway Entrance</u>
<u>2</u>	<u>System Operating pressure to gas meter</u>
<u>3</u>	<u>5220 Bldg C West outside view of damages area</u>
<u>4</u>	<u>5220 Bldg C Broken Regulator and Vent piping</u>
<u>5</u>	<u>5220 Bldg C Gas meter identification</u>
<u>6</u>	<u>Xcel Energy Barhole Markings Between Bldg.5210B & 5220C</u>
<u>7</u>	<u>5220 Bldg C Mech Rm Boiler Heat system</u>

<u>8</u>	<u>5220 Bldg C Heating System-Mech Room</u>
<u>9</u>	<u>5220 Bldg C Gas Water Heater-Mech Room</u>
<u>10</u>	<u>5220 Bldg C Entrance to Mech Room</u>
<u>11</u>	<u>5220 Bldg Bldg C West Outside Exit alongside Mech Rm</u>
<u>12</u>	<u>5210 Bldg B Gas Meter Regulator Vent Piping Comparison</u>
<u>13</u>	<u>5220 BldgC-VentPiping Not Vented Freely To Atmosphere And Away from Openings</u>
<u>14</u>	<u>5220 Bldg C Gas meter regulator and vent piping</u>
<u>15</u>	<u>5220 Bldg C Outside View-Second floor fire damage</u>
<u>16</u>	<u>Bldg C Gas water heater in Mechanical Room</u>
<u>17</u>	<u>5220 Bldg C Melted plastic fittings by water heater In Mech room</u>
<u>18</u>	<u>5220 Bldg Heating system tank fire-heat damage in Mech Room</u>
<u>19</u>	<u>5220 Bldg C Mech room damage-View from inside Mech Room</u>
<u>20</u>	<u>5220 Bldg C Wrapped gas meter, regulator, vent pipe</u>
<u>21</u>	<u>5220 Bldg C Burn damage to exterior 2nd flr-West Side</u>
<u>22</u>	<u>5220 Bldg C Gas meter and burn pattern on west exterior siding</u>
<u>23</u>	<u>5220 Bldg C -12th St S Fargo1-4-19 Fire Diagram 001</u>

Is a diagram of incident scene attached? No

PROBABLE CAUSE:

Did Incident include:

Explosion
Fire

Deaths
Injuries

Remarks:

Living center nurse, Sara Phelps, was sent to area hospital on January 4, 2019, at the direction of the Fargo fire chief, and was treated for first degree burns and some singed hair/eyebrows, and released. No overnight or extended hospital stay was necessary. Comments are from Greg Hanson and Kari Dew of living center facility.

In detail, describe the suspected cause of the failure (outside force, mechanical failure, material failure, construction defect, manufacturing defect, corrosion, or any combination of the above):

Probable outside force impacting the natural gas line regulator and vent piping.

As of January 12, 2019, there is no conclusive determination of exactly what caused the fire. The gas meter for this apartment building, located at 5220 12th St South, Building C, is located outside of the apartment building between two apartment units as shown in photograph #13, and the regulator and vent piping of the gas regulator was broken off the pipeline next to the meter, as shown in photograph #4. The cause of this breakage remains undetermined at this time, but it appears that something accidentally struck or fell onto or against the regulator and regulator vent piping which may have caused the breakage of the regulator and vent from the piping. There is no video to confirm the exact reason or cause of the breakage. By interviewing facility personnel, there is no reason to believe there was any intentional damage done to this regulator and vent piping and that this damage was accidental. There is no video that would show if any personnel were working or present in or near the vicinity of the gas meter and regulator/vent or if some other outside force impacted the facility.

The meter, labeled as NSP 472678, as shown in photograph #5, has its regulator and vent piping physically located below two air intake ducts as shown in photograph #13, that could have drawn escaping gas into the mechanical room where it appears the fire started. The gas regulator vent piping from the regulator as it was found, and as shown in photograph #15, could possibly vent any escaping gas to open air below the two air intake ducts that enter the exterior wall of the first floor mechanical room in building C. It is probable that some outside force broke and separated the gas regulator and vent piping from the pipeline next to the gas meter. There appeared to be no previous breakage or separation of the regulator from the piping. This outside force could have been from snow and/or ice buildup from the first floor mechanical roof that

may have slid off the roof and landed on the gas regulator and vent piping, causing it to break.

A major item of concern is in comparing the gas meter, regulator and regulator vent piping from building C at 5220 12th St South, Fargo, to that of building B at 5210 12th St South, Fargo, which is adjacent to and northwest of building C, is that the discharge of the vent piping on building C as shown in photograph #14, was not installed so that venting gas would vent to atmosphere above the mechanical room air intakes as it does in building B as shown in photograph #12. The vent piping on building B is physically attached to the wall and the discharge is above the air intake vents of the mechanical room at Building B. This is shown by photograph #12 which shows the extension piping. So, by knowing that gas is lighter than air, any gas that would have vented from the building C gas piping would likely get drawn into the mechanical room air intakes of building C. On building B, the meter is also physically mounted to the exterior wall of the first floor mechanical room, as shown in photograph #12, whereas on building C, the meter is not mounted to the wall as it is on building B. There is what appears to be some mounting hardware on the building C meter support in the form of a screw that may suggest that it had at one time been attached to the exterior wall or some part of the building structure as shown in photograph #14. It appears that the exterior siding and rain gutters on building C, are newer and had been recently installed. It is different than that of building B as shown in photographs #12 and #14. In talking with facility personnel, they stated that the siding and rain gutters on building C were replaced about 3 years ago. They also mentioned that some exterior work was done on this building in November of 2018 and that there was a possible lightning strike in June 2018. According to facility personnel interviewed, the installer of the siding and rain gutters was Diversified Company. The insurance company is First Initiatives Insurance as stated by Greg Hanson and Kari Dew.

The building C mechanical room is located on the ground floor level and between two apartment units. In this mechanical room, there are multiple potential sources of ignition. One is a gas water heater and another is a boiler/heating unit for the building.

The most likely scenario is that the gas meter regulator and vent piping was broken first, due to something impacting it from the top or sides. This would explain why residents were smelling gas if it was leaking from the broken piping and being drawn into the first floor mechanical room through the air intake ducts. The escaping gas was most likely ignited by one or more of the ignition sources inside the first floor mechanical room.

It is not clear if there was ever proper gas regulator vent piping installed from the gas regulator and gas line to the atmosphere, or if it is possible that the extended vent piping was removed during the siding and rain gutter replacement and not reinstalled. It was evident that at the outlet end of the gas regulator vent piping, the threads of the outlet end of the vent piping were well rusted indicating that there had been no other extension piping attached to the regulator vent and mounted to the exterior wall of the first floor mechanical room for a substantial amount of time prior to the occurrence of this fire.

This presents a significant concern as 49 CFR Part 192 clearly states:

Part 192.355 Customer meters and regulators: Protection from damage. (b)
Service regulator vents and relief vents. Service regulator vents and relief vents must terminate outdoors, and the outdoor terminal must— (2) Be located at a place where

gas from the vent can escape freely into the atmosphere and away from any opening into the building.

Xcel Energy states in their O&M plan: Table 8.5.1 Discharge\Release Point Clearances (See Figure 8.5.3) From Sources of Ignition

There shall be a 3' radial minimum clearance between the discharge\release point of the relief device line or regulator vent or connected terminal outlet piping of all gas meter sets and sources of ignition. Any discharge\release point of the relief device line or regulator vent or connected terminal outlet piping must be located outside where the gas can escape freely into the atmosphere and away from any opening into the building.

As stated earlier, as the discharge/release point of the relief device line was located below the air intake ducts for the first floor mechanical room of Building C, when the gas regulator and vent piping was broken, the escaping gas was drawn into the air intake ducts of the first mechanical room, thus providing a fuel source for the fire.

There is substantial mechanical, structural, and fire damage to the first floor mechanical room, and substantial structural and fire damage to the walls of the second floor area of the building directly above the mechanical room. There is also damage to the building interior, hallway carpeting, walls, etc., due to fire, water from the sprinkler system, and fire-fighting processes used to extinguish the fire.

Has a chain of custody been established for any material suspect? No, there is no clear reason that there was any intentional damage done to this apparatus.

If so, briefly describe: No, none at this time.

List here the names/titles of all pertinent sources of information used to describe the above:

James Garvey IAAI-CFI Deputy Fire Marshall 637 NP Ave, Fargo, ND 58102	Fargo (ND) Fire Department	701-241-8135
Tony Coronato – Xcel Energy Xcel Energy Second responder on January 4, 2019.	Lead Gas Technician Specialist	701-371-5213
Butch Olmschenk – Exel Energy Xcel Energy First responder on January 4, 2019.	Gas Technician	218-790-6789
Lisa Lucas Xcel Energy Team Lead Investigator (Arrived 1-5-19)		p: 715-737-2662 m: 715-214-7023

Greg Hanson – River View Place manager

p: 701-261-6212

Kari Dew – River View Place Executive Director

WITNESS INTERVIEWS:

Name/Address

Brief Outline of Interview

Jamie Garvey – Fargo Fire Department Fire Inspector/Investigator

Jamie was on scene at 5220 Building C 12th St South, Fargo, the evening of January 4, 2019. He arrived after the Fire Department was on scene. In talking to facility personnel at River View Place, it appears that natural gas (gas) was leaking and/or venting sometime prior to the fire starting. Jamie, along with Lisa Lucas, Xcel's Lead Investigator, and Aaron Morman, North Dakota Public Service Commission Gas Pipeline Safety Inspector, interviewed Greg Hanson, facility manager, and Kari Dew, facility Executive Director as to what occurred prior to the fire in the "C" building of the 5220 address.

Jamie said that the Fargo Fire Department was dispatched to a gas leak call but when they arrived on scene at the 5220 address, there was a fire in progress. The fire department personnel were able to shut off the gas flow at the gas meter that supplies the "C" building natural gas. I had a discussion with Jamie as to whether the fire started first and then the gas meter regulator vent piping was broken, or if the gas meter regulator and vent piping were broken first and this then vented gas into the first floor mechanical room where there are multiple sources of ignition that would have most likely ignited the gas that was entering through the air vents coming into the mechanical room. The most likely scenario is that the gas meter regulator and vent piping was broken first, due to something impacting it from the top or side. Upon investigation on Saturday, January 5, 2019, Jamie and I observed that there was some remaining snow buildup on top of the second floor roof that may suggest that snow and ice may have slid or fallen from the roofs of both the second floor roof and the first floor mechanical room roof due to the melting of snow and ice that was happening due to outdoor temperatures in the 35-40 deg. F range on January 4, 2019. The first floor mechanical room roof had an approximately two-foot wide roof overhang that snow and ice buildup could have slid off and landed on top of, or against the gas regulator and regulator vent piping. The likely scenario is that whatever fell upon or against the gas piping and regulator, most likely impacted the regulator body, and/or regulator vent piping which protrudes out from the regulator body. There was no evidence that there had been any material defect such as a partial break prior to this event. There was some snow and ice buildup remaining just to the west of the gas meter, regulator, and vent piping. It is difficult to know how much snow and ice had been piled there prior to the fire, or if any of this snow and ice accumulation had fallen from the roofs and landed there.

Greg Hanson – River View Place facility manager and

Kari Dew –River View Place Executive Director, were interviewed and the following information was shared.

A strong smell was first noticed in apartment 103C at about 4:00 PM CST on January 4, 2019 where the description of something smelling like a dead animal was reported. They checked the apartment first but when they went to the water heater area, they said the area smelled like a dead animal. Julie Eiler from environmental services called Greg and reported a gas smell in the main kitchen. Greg went home at 5:30 PM on January 4, 2019. At 6:06 PM, a call came in that there was a gas smell in

the facility kitchen. Starting at 6:07, 6:09 PM, 6:11 PM, continuous calls came in from residents reporting a gas smell. Fr. Pribula, the chaplain, also called to report the issue. He was seen in the video we viewed. Julie from environmental services then called "911" and from there the Fargo Fire Department and Xcel Energy were notified. Jamie Garvey-Fargo fire department investigator, Lisa Lucas-Xcel Energy investigator, and Aaron Morman-ND PSC Gas Pipeline Safety inspector, viewed a video shown by Greg Hanson which showed nurse Sara Phelps checking out the building C mechanical room and discovering that there was a fire. The time of the video was approximately 6:00 PM on January 4, 2019. At this time, Sara did receive some first degree burns. The Fargo fire department fire chief, Chris Rasmussen, who had arrived on the scene, sent Sara to a Fargo hospital where she was examined, treated for first degree burns, and released.

Butch Olmschenk – Xcel Energy Gas Tech - 219-790-6789

Arrived at approximately 7:04 PM. The Fire Chief and crew had shut off the gas supply valve. Butch noticed that the valve was not in the lockable position and received permission from the Fire Chief to rotate the valve to the correct position so it could be locked out. The area was made safe while the Xcel Energy field personnel were on site. The valve was locked out by Excel Energy personnel, and remains in the locked position. Butch estimates that he stayed at the scene until approximately 10:30 PM.

Tony Coronato – Xcel Energy Lead Gas Technician Specialist 701-371-5213

Xcel Energy Second responder on January 4, 2019. Arrived on scene within minutes of Butch Olmschenk and concurred with what Butch stated had happened in regards to locking out the gas supply valve and making the area safe. Tony left the scene at approximately the same time as Butch.

WITNESS INTERVIEWS CONTINUED:

Has this incident been reported to D.O.T.? Yes, reported to NRC on 10-JAN-19 at 12:57.

If so, how? Phone

By whom? TOM ANDERSON – Xcel Energy

When? Report taken by NRC at 12:57 on 10-JAN-19

Did any of operator's staff contribute to this incident? If so, provide employee number and title:

No,

Has the operator evaluated any staff members whose performance of a covered task may have contributed to this Incident?

No

Did the operator follow all operational and emergency procedures required by the code?

Yes, as far as can be determined.

Conduct a Root Cause Analysis using the following outline:

1. Clearly define the problem.

A fire started in the first floor mechanical room at 5220 Building C located at 12th St South in Fargo, ND. This building is a part of the Riverview Place retirement facility located at 5300 12th St South in Fargo, ND. The fire caused considerable structural damage to Building C at the 5220 address of 12th St South in Fargo.

2. Integrate any data/evidence.

Photos and interviews are part of the investigation file.

3. Identify the causal relationships associated with the defined problem.

It appears that the broken gas regulator and regulator vent piping leaked natural gas directly below the first floor mechanical room air intake vents where natural gas was drawn into the mechanical room where there were multiple ignition sources.

4. Identify which causes if removed or changed could prevent recurrence.

Removal of what appears to have been a short piece of unsupported vent piping and installation of an extension of the gas regulator vent piping, securely fastened to the exterior wall at multiple places on the exterior wall, and placement of the outlet of the vent piping at a point above the height of the first floor mechanical building air intake vents. This could have provided enough physical support for the gas regulator and gas regulator vent piping to survive the impact of what appears to have been some type of outside force striking the gas regulator and short piece of unsupported vent piping causing the breakage of the regulator. This would also allow venting gas to be vented to the atmosphere and away from the openings of the first floor mechanical room and lessen any chance of the gas being drawn into the mechanical room where there are multiple sources of ignition. Gas was drawn into the intake vents of the first floor mechanical room where there were multiple ignition sources available to ignite the vented gas. Or, relocate the gas meter, regulator, and regulator piping away from any opening into this building.

5. Identify possible effective solutions that could prevent recurrence, and do not cause other problems.

Install extension piping for the gas regulator vent system so gas would escape away from the air intake vents for the mechanical room, or, relocate the gas meter, regulator, and regulator vent piping away from any opening into this building.

6. Issue proposed compliance order to implement the recommendations.

Issue NOPV for Xcel Energy's failure to follow their requirements as written in their Operations and Maintenance manual as stated here:

Xcel Energy states in their O&M plan: Table 8.5.1 Discharge\Release Point Clearances (See Figure 8.5.3) From Sources of Ignition

There shall be a 3' radial minimum clearance between the discharge\release point of the relief device line or regulator vent or connected terminal outlet piping of all gas meter sets and sources of ignition. Any discharge\release point of the relief device line or regulator vent or connected terminal outlet piping must be located outside where the gas can escape freely into the atmosphere and away from any opening into the building.

Did any of the following contribute to or cause the incident?

- Materials
 - Defective raw material No
 - Wrong type for job No
 - Lack of raw material No

- Machine / Equipment
 - Incorrect tool selection No
 - Poor maintenance or design Yes. Vent piping did not discharge gas into the atmosphere as required.
- Poor equipment or tool placement location. Possibly move meter and regulator to better location.
 - Defective equipment or tool No
- Environment
 - Orderly workplace No
 - Job design or layout of work No
 - Surfaces poorly maintained No
 - Physical demands of the task No
 - Forces of nature Possible outside force
- Management
 - No or poor management involvement No
 - Inattention to task No
 - Task hazards not guarded properly No
 - Other (horseplay, inattention....) No
 - Stress demands No
 - Lack of Process No
- Methods
 - No or poor procedures – Current procedure if followed, is adequate.
 - Practices are not the same as written procedures Procedure not followed
 - Poor communication No
- Management system
 - Training or education lacking No
 - Poor employee involvement No

- Poor recognition of hazard - Operator was evidently unaware of vent piping problem.
- Previously identified hazards were not eliminated No

Attach a summary of the above incident including a root cause analysis.
See summaries and root cause analysis above.

INSPECTOR'S SIGNATURE

Aaron A Morman ND PSC

DATE SIGNED

February 8, 2019