LRB File No. 145 – 18

IN THE MATTER OF:

An appeal of the of the decision of the Director of Occupational Health and Safety in the appeal of case number 15689, report 15782, and issuance of a Notice of Contravention, pursuant to *The Saskatchewan Employment Act.*

BETWEEN:

Consumer's Co-Operative Refineries Limited

APPELLANT

- and –

The Director of Occupational Health and Safety
Ministry of Labour Relations and Workplace Safety

RESPONDENT

For the Appellant, Consumer's Co-Operative Refineries Limited:
T. John Agioritis, MLT Aikins LLP

For the Respondent, Director of Occupational Health and Safety:
Steven Wang, The Crown

Appearing before:
Laurent Mougeot
Adjudicator Designated to Hear Appeals Pursuant to Part III, Division 8
of The Saskatchewan Employment Act
Order in Council 251/2018

DECISION

January 20, 2020

1. Introduction

1.1. The Appellant, Consumer's Co-Operative Refineries Limited (**"CCRL"**), is a federally incorporated co-operative pursuant to the Canada Cooperative Act, SC 1998, c.1, and is extra-provincially registered in the Province of Saskatchewan.

1.2. CCRL operates a refining and upgrading plant located in Regina, Saskatchewan (the "**Refinery**"). The Refinery processes crude oil to produce gasoline, diesel, propane, butane, sulphur, heavy oil, smelting grade coke and asphalt. The Refinery also blends and distributes packaged private-label oil and lubricant products such as motor oil.

1.3. A notice of contravention was served to CCRL on December 4, 2017, in relation to the decision of Occupational Health and Safety Officer Carla Sanson ("**Officer Sanson**") in Case number 15689, Report number 15782 (the "**Contravention**"). The Contravention alleged that a "dangerous occurrence" pursuant to s. 9(1)(e) of the Occupational Health and Safety Regulations, RSS c.O-1.1 Reg.1, occurred at CCRL's facility when diesel gas oil ("**DGO**") was released from a pump on August 23, 2017, during a scheduled repair causing injury to a worker (the "**Incident**"). The Contravention further alleged that CCRL contravened s. 9(2) of the Regulations in failing to give notice of the Incident to the Occupational Health and Safety Division (the "**OH&S Division**").

1.4. CCRL appealed the Contravention to the Executive Director of the OH&S Division (the "**Director")** pursuant to s. 3-53(1) of *The Saskatchewan Employment Act,* SS 2013.

1.5. By decision dated May 29, 2018, Mr. Ray Anthony, Executive Director of the OH&S Division, dismissed CCRL's appeal and affirmed the Contravention (the "**Director's Decision**").

1.6. CCRL appealed the Director's Decision to an Adjudicator pursuant to s. 3-56 of *The Saskatchewan Employment Act*, SS 2013.

1.7. On July 11, 2018, the Board Registrar of the Labour Relations Board assigned CCRL's appeal to Adjudicator Brenda R. Hildebrandt, Q.C.

1.8. Following Ms. Hildebrandt's appointment as a judge of Her Majesty's Court of Queen's Bench for Saskatchewan, pursuant to the *Judges Act,* RSC 1985, the designated Adjudicator was no longer able to conclude the matter.

1.9. On January 4, 2019, CCRL's appeal was re-assigned to Laurent Mougeot, Provincial Adjudicator designated by Order in Council #251-2018.

1.10. On January 4, 2019, the Registrar of the Saskatchewan Labour Relations Board communicated the following to the Appellant, the Respondent, the Adjudicator and the President of UNIFOR Local 594 (the union representing the worker affected in the Incident):

1.10.1. "The legislation contemplates at s. 6-3 that unions are deemed to be "a person" for the purposes of the Act. I cannot conceive of any interpretation that would disallow or unilaterally circumvent a named and directly affected worker to be notified or, as in this case the union, who clearly articulates their concern and role as the certified

bargaining agent. They must be allowed to advance concerns in respect of the events of August 23, 2017 and be afforded an opportunity to make representations."

1.11. The parties, including representation from UNIFOR Local 594, convened by conference call on January 9, 2019 to consider, among other preliminary matters, the role of the Union in this matter. During the call, all parties confirmed the following:

1.11.1. There is no indication of potential conflicts and no apprehension of bias with the selection of the Adjudicator.

1.11.2. In response to the Registrar of the Labour Relations Board having raised the matter of the Union having the ability to intervene in this matter, the parties agreed to further consult among themselves, and more specifically, the union agreed to provide a determination of their specific interests and role in the appeal.

1.11.3. The Respondent and the Appellant established that they would be prepared to submit an agreed statement of facts prior to the hearing and that they would also be prepared to wait until such time as UNIFOR clarified its role in the matter prior to submitting the joint document.

1.12. On March 5, 2019, Crystal Norbeck, authorized representative for UNIFOR Local 594, advised that the Union indicated that the Local would be *"fine with receiving documents from eth (sic) parties and performing a watching brief".*

1.13. On April 2, 2019, after consultation with the respective parties and under instructions from the Adjudicator, a Notice of Hearing was issued by the Registrar of the Saskatchewan Labour Relations Board setting the hearing for April 9, 10 and 11, 2019, in Regina, Saskatchewan.

1.14. The Appellant and the Respondent were present at the hearing on April 9, 2019. A union representative was also in attendance and confirmed the role of the Union to be that of an observer.

1.15. On the day of the scheduled hearing, the parties proceeded with the filing of the statement of agreed facts, marked as E1 in these proceedings.

1.16. At the April 9, 2019 hearing, the parties could not agree on the participation of an expert witness and the submission of a related affidavit by the Appellant. At the request of the Adjudicator, the parties consented to further discuss and exchange on this issue with the hope that they would reach a negotiated resolution, and the hearing was adjourned *sine die*.

1.17. A conference call was held on June 28, 2019, with all parties represented. It was agreed to reconvene the hearing on September 17, 2019 in Regina.

1.18. The hearing proceeded as scheduled, with final submissions being filed by the respective parties on October 15, 2019.

2. **The Issue**

2.1. The matter of this appeal can be condensed to this question: "Does the **Incident** constitute a "dangerous occurrence" pursuant to s. 9 of the *Regulations*?"

2.2. If so, was the employer required to notify the OH&S Division of such incident?

2.3. My review of s. 9 of the *Regulations* will focus on two specific tests.

2.3.1. Primarily, is it necessary for a "dangerous occurrence", as listed in s. 9 of the *Regulations,* to satisfy two criteria concurrently to trigger a notice.

2.3.2. Specifically, must one of the events described in s. 9 (1)(a) to (h) of the *Regulations* also have caused or could have caused death or hospitalization for a minimum of 72 hours in order to be deemed a "dangerous occurrence".

2.3.3. Secondly, does the specific incident under review in this matter satisfy the test of s. 9(1)(e) of the *Regulations* as defined by the terms "uncontrolled spill or escape of toxic, corrosive or explosive substance?

2.3.4. Section 9.1 of the *Regulations* states the following:

Dangerous occurrences

9*(1) In this section,* ***"dangerous occurrence"*** *means any occurrence that does not result in, but could have resulted in, a condition or circumstance set out in subsection 8(1), [emphasis added]* ***and includes****:*

(a) the structural failure or collapse of:

(i) a structure, scaffold, temporary falsework or concrete formwork; or

(ii) all or any part of an excavated shaft, tunnel, caisson, coffer dam, trench or excavation;

(b) the failure of a crane or hoist or the overturning of a crane or unit of powered mobile equipment;

(c) an accidental contact with an energized electrical conductor;

(d) the bursting of a grinding wheel;

(e) ***an uncontrolled spill or escape of a toxic, corrosive or explosive substance****; [emphasis added]*

(f) a premature detonation or accidental detonation of explosives;

(g) the failure of an elevated or suspended platform; and

(h) the failure of an atmosphere-supplying respirator.

(2) An employer, contractor or owner shall give notice to the division as soon as is reasonably possible of any dangerous occurrence that takes place at a place of employment, whether or not a worker sustains injury.

(3) A notice required by subsection (2) must include:

(a) the name of each employer, contractor and owner at the place of employment;

(b) the date, time and location of the dangerous occurrence;

(c) the circumstances related to the dangerous occurrence; and

(d) the name, telephone number and fax number of the employer, contractor or owner or a person designated by the employer, contractor or owner to be

contacted for additional information.

(4) An employer, contractor or owner shall provide each co-chairperson or the representative with a copy of the notice required by subsection (2).

2.3.5. Section 8 of the *Regulations* states the following:

Accidents causing serious bodily injury

8*(1) An employer or contractor shall give notice to the division as soon as is reasonably possible of every accident at a place of employment that:*

(a) causes or may cause the death of a worker; or

(b) will require a worker to be admitted to a hospital as an in-patient for a period of 72 hours or more. [emphasis added]

(2) The notice required by subsection (1) must include:

(a) the name of each injured or deceased worker;

(b) the name of the employer of each injured or deceased worker;

(c) the date, time and location of the accident;

(d) the circumstances related to the accident;

(e) the apparent injuries; and

(f) the name, telephone number and fax number of the employer or contractor or a person designated by the employer or contractor to be contacted for additional information.

(3) An employer or contractor shall provide each co-chairperson or the representative with a copy of the notice required by subsection (1).

3. The Incident

3.1. There is much agreement by the parties on what occurred on August 23, 2017. The Agreed Statement of Facts jointly submitted by the Appellant and the Respondent describes the Incident as follows:

3.1.1. On August 23, 2017, there was a repair scheduled at CCRL's Refinery concerning the west DGO pump (the "**Pump**"). The Pump had previously been taken out of service after the outboard seal was found to be smoking and dripping. It was found that both the inner and outer seal of the Pump had failed and required replacement.

3.1.2. In anticipation of the repair, the Pump was isolated following a shift meeting on the evening before the Incident. By 2:15 am of August 23, 2017, the Pump was completely process isolated, including the nitrogen and flare line from the seal. The Pump was then left to cool.

3.1.3. Prior to undergoing the repair, an isolation list was printed, and the operators scheduled to conduct the repair together reviewed a Pipe and Instrumentation Diagram affecting the Pump. This diagram identified the isolation points for the Pump and field level hazard assessments were considered prior to completing the task.

3.1.4. At or around 4:00 am, three process operators, including Ryan Maruschak, Clayton Pirie and James Dahl, proceeded with the scheduled repair by first draining the

Pump. Mr. Maruschak stood at the base of the Pump and cracked the high point vent. When this vent was opened, liquid began to bubble into the atmosphere. Mr. Pirie then told Mr. Maruschak to stop opening the high point vent. Mr. Pirie ensured there was a double block on the valve arrangement to the oily water drain ("**OWD**"), after which he began to open the drain valve closest to the Pump.

3.1.5. Hot DGO was released from the seal and made contact with Mr. Pirie on the right side of his neck, ear and face. Some DGO went behind Mr. Pirie's safety glasses causing indirect contact with his right eye. The exposure was brief and was not repeated. Mr. Pirie was escorted to the safety shower area where the safety shower alarm was initiated.

3.1.6. Once in the safety shower area, Mr. Pirie's eyes were flushed, and his face continuously submerged in water. He was then taken to the hospital where he underwent some treatment.

3.1.7. Mr. Pirie was discharged from the hospital a short time later and returned home around 7:30 am.

3.1.8. The approximate amount of DGO released from the Pump to the secondary containment at the pump base, which then follows through to the OWD system, at the time of the Incident was 20 litres. This amount takes into account the volume of product that may have sprayed at the time of the initial release, as well as the release from the secondary containment at the Pump base to the OWD, the latter being the release which resulted in Mr. Pirie's injury.

3.1.9. The direct cause of the Incident has been identified as an overpressure event which caused DGO to escape from the Pump. Having been process isolated in anticipation of the drain, the Pump was under pressure and there was no other avenue for it to be released after the overpressure event occurred. The DGO was released from between the seal faces of the Pump to the atmosphere.

3.1.10. CCRL's standard operating procedures for the maintenance of the Pump included the following:

a) To prepare pump for maintenance:

b) Put the standby in service if operations are to be continued.

c) Shut down the pump to be maintained per section - Normal Shutdown.

d) After the pump is down, open disconnect, lock and tag the motor switchgear according to Refinery Safe Work Procedures Manual.

e) Isolate, depressurize and drain that portion of the pump to be worked on.

3.1.11. The standard operating procedures required for the repair were implemented at the time of the Incident.

3.1.12. At the time of the Incident, Mr. Pirie was wearing the required basic personal protective equipment ("**PPE**"), including:

a) CSA/NFPA approved flame-resistant clothing;

b) CSA approved protective footwear;

c) CSA approved sealed safety eyewear;

d) CSA approved head protection; and

e) hand protection.

3.1.13. Further, Mr. Pirie had received specific training on the task at issue, including relevant safe work procedures.

3.1.14. Following the Incident, CCRL conducted an internal investigation, which addressed both the Safety Data Sheet for DGO and internal guidelines relevant to the issue being the "Potential Dangerous Occurrence Reporting Workflow". It was concluded that the Incident was not a "dangerous occurrence" for the purpose of the Regulations, and that notice to the OH&S Division was not required in the circumstances.

4. The Contravention

4.1. The decision of Officer Sanson and the issuance of the Contravention arose from an inspection of CCRL's facility on October 24, 2017 (the "**Inspection**"). OH&S Officers Kyle Broda, Ila Klassen and Carla Sanson each attended at CCRL's facility on the date of the Inspection.

4.2. During the course of the Inspection, the officers reviewed minutes of CCRL's Occupational Health Committee ("**OHC**") and initiated discussion of Item No. 2017-OHS-001 documented in the minutes relating to the Incident. Shane Spilsted ("**Mr. Spilsted**") responded to the item on behalf of CCRL, and stated that the Incident was not reported to the OH&S Division because it was not a dangerous occurrence for the purpose of the Regulations, nor did it meet CCRL's "*Potential Dangerous Occurrence Reporting Workflow*" guidelines.

4.3. Officer Sanson did not obtain a statement from the injured worker.

4.4. Following the Inspection, an Occupational Health Officer Report dated October 31, 2017, requested that CCRL provide additional information with regard to the Incident. CCRL complied and by letter dated November 7, 2017, provided extensive documentation concerning the Incident including its internal investigation report, the Safety Data Sheet for DGO, information relating to the temperature and amount of DGO released, maintenance records concerning the pressure switch at issue, safe work procedures, the PPE worn at the time of the Incident, and statements of other workers and photos.

4.5. Officer Sanson concluded as follows: *"Since the DGO is classified both acute toxicity Category and Specific Organ Toxicity Category as well as having the potential to cause flash fires as explosions combined with the fact that during planned maintenance the pump components failed and lead to an uncontrolled spray of hot DGO this incident is a dangerous occurrence according to Regulation 9(1)(e).*

4.6. Officer Sanson found the Incident constituted a "dangerous occurrence" and the resulting Contravention was issued.

4.7. The Agreed Statement of Facts included the following documents:

a) CCRL Officer's Report - Request for Information Case #15689 (November 7, 2017)

b) CCRL OpEx Entry for Volume Spilled

c) CCRL Pipe and Instrumentation Diagram

d) CCRL Potential Dangerous Occurrence Reporting Workflow

e) CCRL Progress Report on Notice of Contravention

f) CCRL Safety Data Sheet: Gas Oils

g) CCRL, Safety Incident Investigation (August 23, 2017)

h) CCRL - Shop Practice -Standard Operating Procedures: Centrifugal Pumps (Effective Date: August 22, 2011)

i) CCRL Student Transcript (Pirie, Clayton)

j) CCRL TY Program - SP-230, "Personal Protective Equipment"

k) Decision of Mr. Ray Anthony, Executive Director of the Occupational Health and Safety Division, Government of Saskatchewan (May 29, 2018)

l) Notice of Contravention, Occupational Health and Safety, Government of Saskatchewan L. (December 4, 2017)

m) Statement of Basil Grabarczcyk (August 30, 2017)

n) Statement of Chris George (August 23, 2017)

o) Statement of Ryan Maruschak (August 23, 2017)

5. CCRL's Response to Contravention

5.1. On December 7, 2017, CCRL completed the OH&S Progress Report on Notice of Contravention, including their compliance to take remedial action on the Incident and to review the procedure and workflow for determination of "dangerous occurrences." CCRL also provided its "Potential Dangerous Occurrence Reporting Workflow" guidelines.

5.2. On December 22, 2017, CCRL submitted its appeal of the decision of Officer Sanson and issuance of the Contravention.

5.3. By decision dated May 29, 2018, the Executive Director dismissed CCRL's appeal and affirmed the Contravention.

6. **The Hearing**

6.1. Evidence filed by the parties included:

a) Investigation Binder, OH&S Division, **Tab 1 to Tab 14**

b) Agreed Statement of Facts – **E1**

c) Court Sandau CV – **E2, Tab A**

d) Chemistry Matters Report June 28, 2019 – **E2, Tab B**

e) Chemistry Matters Addendum, September 13, 2019 – **E2, Tab C**

f) Affidavit of Benjamin Barbieri, April 5, 2019 – **E2, Tab D**

g) Supplementary Affidavit of Benjamin Barbieri, August 21, 2019 – **E2, Tab E**

h) TOXNET Distillates (petroleum)Toxicity Data RN: 64741-44-2 D – **E3**

i) Gas Oil (petroleum) CAS # 64741-43-1 – **E4**

- The parties also filed the following briefs with the Adjudicator:

a) Written Representations on behalf of the Appellant, October 4th, 2019.

b) List of Authorities – Supporting the Appellant's Written Submission.

c) Written Submissions on behalf of the Respondent, October 4th, 2019.

d) List of Authorities – Supporting the Respondent's Written Submissions.

e) Reply to the Written Submission of the Respondent on behalf of the Appellant, October 15, 2019.

f) Reply to the Appellant's Written Submissions on behalf of the Respondent, October 15, 2019.

6.2. **The Expert Witness**

6.3. Only one witness testified at the hearing.

6.4. Under oath, Dr. Court Sandau, Ph.D., P.Chem. (**"CS"**) provided *viva voce* evidence through both direct and cross examinations. CS also relied upon analysis and notes from reports he authored: the June 28, 2019 Chemistry Matters Report and the September 13, 2019 Addendum.

6.5. The Respondent introduced CS as an expert witness in the field of petro chemical analysis, and qualified in the interpretation of toxicity levels associated with exposure to petroleum-based products, including DGO. A thorough review of CS's extensive résumé was conducted and confirmed by the witness.

6.6. Under cross-examination, the Appellant inquired as to CS's direct experience with human toxicology. It was established that CS had extensive knowledge of journals and literature documenting anecdotal human toxicology (i.e., external research). However, CS acknowledged that his direct experience with toxicology research

associated with laboratory animals was very limited. CS also explained that most toxicology analysis reports have very limited access to statistical data related to human exposure, given the nature and risks associated with controlled and observed clinical exposures.

6.7. Following a review of CS's credentials, education and experience with petro-chemicals and their related toxicity, and related documentation, the Adjudicator recognized CS as an expert witness for the purpose of the hearing and testified in accordance with the rules applicable to expert witnesses.

6.8. CS testified that his company, Chemistry Matters Inc. ("**CMI**") had been retained by CCRL to investigate some aspects of the incident and the chemistry and chemical principles associated with human exposure to DGO. CS also confirmed that CMI was commissioned to prepare a report ("**CMI Report**") to assess whether DGO is a toxic, corrosive and/or explosive substance, and whether hot DGO could be deemed to be toxic or corrosive during a brief and unrepeated exposure to the neck, ear and face and whether the hot DGO in this Incident could have been explosive in nature.

6.9. CS's expert opinion on these questions is best summarized and captured in the conclusion of the CMI Report he authored:

> *"There are no scientific studies that support the finding that DGO is a toxic substance, nor does DGO fall under the Canadian HPR definition for corrosive or the UN's GHS definition of explosive. The subjective assertion that DGO "may cause flash fires" is not supported in any Canadian or international regulations, nor in any scientific literature for classifying chemicals. There is no scientific evidence to support the claim that DGO is a "toxic, corrosive or explosive" substance. [cf. CCRL DGO Expert Opinion, Chemistry Matters Inc., June 2019, Page 16, (s.5)]*

6.10. Under cross-examination, CS confirmed that his limited experience in human toxicology consisted of undergraduate studies, that he had not observed or participated in toxicology research of DGO on human or animal physiology, and that his analysis relied on his own conclusions drawn from external studies.

6.11. Under cross-examination, CS confirmed that the following statement contained in the CMI report (cf. bottom of first paragraph on top of page 4) was accurate, and that it had been written without supporting third party verification:

> *"Given that DGO-specific toxicity testing data is not available, it is likely that similar, though not identical, substances were used to estimate the potential toxic hazard(s) of DGO, which may not reflect the actual properties of DGO."*

6.12. CS testified that he had no objections to CCRL's Safety Data Sheet classifying DGO as a Category 2 in organ toxicity due to repeated exposure. He also testified that he was not aware of CCRL's methods in preparing the SDSs, and in particular that related to DGO.

7. Appellant's Position

7.1. CCRL submits that the Director erred in affirming the Decision of Officer Sanson, and requests that the Director's decision be overturned, and that the Contravention be cancelled.

7.2. CCRL takes the position that the Director erred in concluding that CCRL was required to give Notice of the Incident and that the Director erred in his interpretation of the term "dangerous occurrence" as defined in s. 9(1)(e) of the Regulations

7.3. CCRL argues that Notice pursuant to s. 9(2) of the Regulations is required only when two conditions are met: when a fatality or serious injury requiring admission as an inpatient in a hospital for more than 72 hours could have resulted and when the occurrence involved one of the conditions listed in s. 9(1)(a) to (h). For the purpose of this appeal, the relevant subsection noted in the Contravention issued against CCRL is s. 9(1)(e) (i.e., involving an alleged uncontrolled spill of a toxic, corrosive or explosive substance).

7.4. CCRL also submits that the Incident cannot be classified as a "*dangerous occurrence*" pursuant s. 9(1)(e) as the release did not involve a toxic, corrosive or explosive substance. Specifically, the Appellant argues that the condition of the DGO and the circumstances of the exposure at the time of the Incident were not suitable for the DGO to be characterized as either toxic, corrosive or explosive.

7.5. CCRL submits that as such, Officer Sanson erred when she concluded that the DGO released during the Incident must be *"classified as both acute toxicity Category and Specific Organ Toxicity Category as well as having the potential to cause flash fires as explosions combined with the fact that during the planned maintenance the pump components failed and lead to an uncontrolled spray of hot DGO"*.

7.6. CCRL maintains that this classification of the substance in the context of the Incident by Officer Sanson is erroneous and overlooks the fact that DGO is only toxic to human exposure in specific instances. In particular, the health hazards associated with DGO only reach the level of "acute toxicity " where the exposure involves inhalation, and it only reaches the level of "specific target organ toxicity" where such exposure involves aspiration as a result of repeated exposure.

7.7. CCRL argues that for the purpose of skin contact, DGO can only be considered toxic where there is a prolonged exposure to the skin and that for eye contact, DGO can only be considered toxic where there is direct contact with the eye(s).

7.8. CCRL asserts that the Incident resulted in a very short and temporary contact of the DGO with the affected worker's skin and that the DGO only reached the worker's right eye, making indirect contact behind the protective glasses. CCRL relates that the affected worker was immediately taken to the safety shower and that there is no evidence that DGO had been inhaled or aspirated and that there had been no additional or repeated exposure during the Incident.

7.9. As such, CCRL maintains that the affected worker did not experience any prolonged exposure to the skin or direct eye contact during the Incident.

7.10. CCRL notes that the Verisk 3E Report supports the employer's position that there are no risks of toxicity associated with the inhalation of DGO except in circumstances where individuals maintain exposure to an above average concentration within the time range as defined by the Canadian Hazardous Products Regulations (the" **HPR**"), neither of which being likely for someone making a reasonable effort to avoid exposure to a limited quantity of DGO under unexpected conditions in the open atmosphere and in a limited area. CCRL also notes that while mild irritant effects may be possible to the eyes, the criteria for classifying the DGO released during the Incident as toxic were not met.

7.11. CCRL concludes that given the affected worker did not inhale or aspirate the DGO as a result of repeated exposure during the Incident and that he only experienced temporary skin contact and indirect eye contact from the DGO during the Incident.

7.12. CCRL also notes that the affected worker was immediately evacuated from the scene of the Incident following the release of the DGO and that his needs were attended at a safety shower where his eyes were flushed, and his face was repeatedly submerged in water.

7.13. CCRL concludes that the DGO released as a result of the Incident was not toxic in the circumstances and not toxic in the context of s. 9(1)(e) of the Regulations.

7.14. Additionally, CCRL references the CMI Report which discusses the chemical composition of DGO in greater detail to offer an expanded determination as to whether the substance can be properly classified as acutely toxic and/or toxic to specific organs.

7.15. With respect to Acute Toxicity, the CMI Report states:

"Chemical analysis of the DGO does not show the significant presence of highly volatile, highly toxic compounds that would suggest it is acutely toxic by inhalation. Since no known studies have shown the toxicity requirements for DGO to be classified as a Category 4 acutely toxic substance, it is likely that this classification was given to be conservative and not based on real world toxicity testing data."

7.16. Referencing the testimony of the Expert Witness, CCRL notes that the author of the CMI Report reviewed and analyzed numerous studies regarding the potential hazards of chemical substances similar to the DGO that was released during the Incident. One of those studies was prepared by the European Chemicals Agency Toxicological Summary, Gas Oils (Petroleum), Straight-Run. This study specifically concluded the DGO had "no hazard identified" in terms of hazard for the eyes.

7.17. CCRL is appealing the decision of the Director of Occupational Health and Safety, dated May 29, 2018, pursuant to The Saskatchewan Employment Act, SS 2013, c, S-15.1, s. 3-56 (the "**Act**").

8. Respondent's Position

8.1. The Respondent summarizes its position as follows:

8.2. The Respondent asserts that s. 9(1) of the Regulations outlines a broad definition, and offers a list of occurrences that also constitute a "dangerous occurrence." S. 9(2) requires the employer to report such occurrences to the OH&S Division.

8.3. The Respondent argues that pursuant to section 2(3) of the Regulations, the terms toxic, corrosive and explosive are to be interpreted with "the meaning commonly given to it at places of employment in the industry concerned".

8.4. The Respondent also asserts that the Safety Data Sheet ("**SDS**") which is used at the plant was produced by CCRL, and that its purpose is to provide crucial information about DGO to advise workers who may be handling it or become exposed to it. It is an important document guiding the safe handling and use of DGO. As such, the SDS is a document that would be commonly used by workers employed with CCRL. The terms and definition within the SDS must be considered to have the "meaning commonly given to it" within CCRL worksites.

8.5. The Respondent also states that the evidence in this proceeding clearly establishes that DGO is a substance that is, according to the HPR, classified as a Category 4 product with "acute toxicity, inhalation", and as Category 2 in "specific target organ toxicity following repeated exposure", and as a Category I product in "aspiration hazard". The SDS further indicates in its detailed toxicological information section that DGO may cause chemical pneumonia.

8.6. It is the Respondent's position that DGO is appropriately classified as Category 4 in "acute toxicity, inhalation", and this was confirmed by expert witness CS under cross-examination when CS stated that he was not aware of any scientific studies contradicting the SDS classification. According to the Respondent, this classification alone satisfies the definition of "toxic" for the purpose of the Regulations.

8.7. The Respondent argues that s. 9(1)(e) is merely concerned with uncontrolled spills and escapes of toxic, corrosive or explosive substances and does not impose other conditions or criteria to define the nature of the substances to qualify under this section. Considering that the purpose of the legislation is to ensure the health and safety of workers, one key method to achieve that purpose is to put in place preventative measures. Section 9(1) is an example of a preventative measure which aims to prevent toxic exposure to workers before it occurs.

8.8. While CS testified that prolonged exposure is necessary for DGO to have toxic effects in a person's body, the Respondent argues that the intent of this is the exact outcome the Regulations aim to prevent. To paraphrase the Respondent, requiring employers to report occurrences where uncontrolled releases or spills of a toxic, corrosive or explosive substance will help prevent situations where a worker suffers from prolonged exposure to dangerous substances. It does not matter that one exposure did not cause toxic effects. The Respondent further recognizes that it is not suggested that a drop of DGO spilled from a container would require an employer to

notify the OH&S Division; but where 20L of a hot DGO uncontrollably escapes, spraying a worker in the face, the Division must be notified.

8.9. The Respondent relies on CS's acceptance of the toxicity classification of DGO under CCRL's SDS, which states that DGO "may be fatal if swallowed and enters airways".

8.10. The Respondent concludes that the Incident of August 23, 2017, where a worker was sprayed in the face with hot DGO, was an uncontrolled escape of a toxic and explosive substance as contemplated in s. 9(1)(e) of the Regulations. The Respondent agrees with Officer Sanson that CCRL failed to report this occurrence to the Division as required by s. 9(2), and that as such, CCRL's appeal of the Director's May 29, 2018 decision should be dismissed.

8.11. In rebuttal to the response from the Appellant that s. 9.2 of the Regulations did not apply, the Respondent reiterates this section is not a contemporaneous pre-requisite to satisfy the intended scope of s. 9 with respect to the determination of a dangerous occurrence.

8.12. The Respondent takes the position that both the SDS and the HPR provide an explicit classification of DGO with respect to its toxic and corrosive properties, consistent with the intended scope of s. 9(1)(e) of the Regulations.

8.13. The Respondent raises *R v. Pederson, 2000 SKQQB 255* to advance that the legislation is to set a minimum standard to maintain safe workplaces in Saskatchewan.

8.14. The Respondent also references *Re Rizzo & Rizzo Shoes Ltd., [1998] 1 SCR 27* as a leading case providing enlightenment on the grammatical structure of legislation and the harmonious interpretation of the provisions of the Act, consistent with its intent.

9. Summary of Submissions and Evidence

9.1. There is no disagreement by the parties on what occurred on August 23, 2017: a worker was sprayed in the face with DGO as a result of maintenance work conducted on a pump. The purpose of the repair work was to replace failing inner and outer seals.

9.2. There is no disagreement by the parties that the release of the DGO occurred as a result of repair work being conducted.

9.3. There is agreement by the parties that the temperature of the DGO, upon escape, was between 121 Celsius and 367 degrees Celsius.

9.4. The parties acknowledge that the DGO spray contacted the worker's neck, ear and face. There is also agreement that the DGO was able to get behind the worker's safety glasses and make contact with the worker's right eye.

9.5. There is no disagreement by the parties that the affected worker was immediately taken to the safety shower where the worker's eye was flushed out and the affected areas of his body cleaned up.

9.6. The parties agree that the direct cause of the Incident has been identified as an overpressure event which caused the DGO to escape from the pump.

9.7. The parties also stated that the worker was taken to the hospital where he underwent treatment (details unspecified).

9.8. It is agreed that, at the time of the Incident, the affected worker was wearing the required basic personal protective equipment, including flame-resistant clothing, required protective footwear, approved sealed safety eyewear, approved head protection and hand protection.

9.9. All parties agree that the affected worker had received the specific training on the tasks being performed, including relevant safe work procedures.

9.10. Following an internal investigation, the employer concluded that the Incident was not a "dangerous occurrence" for the purpose of the OH&S Regulations and that Notice to the OH&S Division was not required in this case.

9.11. Documentation confirms that the Incident was not reported to the OH&S Division by the employer.

9.12. Following an inspection of the employer's facility on October 24, 2017, an officer of the OH&S Division investigated the Incident and deemed it to be a dangerous occurrence which should have been reported.

9.13. The officer's decision was upheld by the Director of the OH&S Division.

9.14. CCRL's Safety Data Sheet for the DGO provides the following attributes for the product: Category 4 (acute toxicity and inhalation), Category 2 (bone marrow, liver, spleen) and Category 1 (inspiration hazard).

9.15. CS contradicts the SDS toxicity ratings, relying upon his professional knowledge in his field of expertise, his professional experience and his reading of external clinical literature.

9.16. The parties disagree on the conclusions presented by the expert witness on the properties of the DGO with respect to toxicity, corrosiveness and its explosive nature.

10. Analysis

10.1. The core question of this appeal resides in the determination as to whether the Incident consists of a "dangerous occurrence" as contemplated by the OH&S Regulations.

10.2. The Regulations provide a clear definition of what constitutes a "dangerous occurrence". S. 9 of the Regulations states the following:

> **9(1)** In this Section, **"dangerous occurrence"** means any occurrence that does not result in, but could have resulted in, a condition or circumstance set out in subsection 8(1), and includes:
>
> (a) the structural failure or collapse of:

(i) a structure, scaffold, temporary falsework or concrete formwork; or

(ii) all or any part of an excavated shaft, tunnel, caisson, coffer dam, trench or excavation;

(b) the failure of a crane or hoist or the overturning of a crane or unit of powered mobile equipment;

(c) an accidental contact with an energized electrical conductor;

(d) the bursting of a grinding wheel;

(e) an uncontrolled spill or escape of a toxic, corrosive or explosive substance;

(f) a premature detonation or accidental detonation of explosives;

(g) the failure of an elevated or suspended platform; and

(h) the failure of an atmosphere-supplying respirator.

[emphasis added]

For reference, S. 8(1) states the following:

8(1) An employer or contractor shall give notice to the division as soon as is reasonably possible of every accident at a place of employment that:

(a) causes or may cause the death of a worker; or

(b) will require a worker to be admitted to a hospital as an in-patient for a period of 72 hours or more.

[emphasis added]

10.3. The agreed statement of facts in this matter provides sufficient guidance to address the question of whether the Incident meets the definition of subsection 9(1)(e), as an "*uncontrolled spill or escape of a toxic, corrosive or explosive substance*". The parties have agreed that it was.

10.4. Hence, consistent with the evidence and the agreed statements, it is the ruling of this Adjudicator that the Incident in this appeal was effectively an uncontrolled escape of a substance.

10.5. The second half of the test is whether the product that escaped had properties which would classify it as toxic, corrosive or explosive. To answer in the positive, the substance only needs to meet on of these three properties in order to satisfy the test.

10.6. The SDS supplied by the Appellant provides clear statements that DGO is a Category 4 product for inhalation (acute toxicity), and a Category 2 product for specific organ toxicity under repeated exposure.

10.7. The HPR Regulations offer further understanding of the properties for these classifications, and the Respondent' submission provides context for relevancy of these regulations in the Appellant's workplace.

10.8. While the Appellant is responsible for the preparation of the SDS for DGO, it also relies on CMI's reports and CS's testimonial to lessen or diminish the classification of the DGO as it relates to this Incident. In doing so, the Appellant emphasises indirect exposure, minimal exposure and duration of exposure as mitigating factors.

10.9. The SDS that are made available to the workers at CCRL are prepared, reviewed and posted bye the Appellant.

10.10. SDSs are critical elements of workplace safety programs and are deemed critical information to be accessed by all workers and workplace safety committees in mitigating workplace hazards.

10.11. Workers and safety committees do not have the ability to access professional chemists to assess the toxicity, corrosive and explosive nature of products present in the workplace. The general practice is that they rely on the SDS to guide safe work practices and incident responses when using dangerous substances.

10.12. Employers who are concerned with the accuracy of the properties or the classification of certain products have the ability to update SDS content and update worker training accordingly.

10.13. On the Appellant's argument that DGO only made "indirect contact" with the worker's eye, and that this minimizes the nature of the exposure, I find no wording in the Regulations that would offer the ability to asses the toxicity or corrosiveness of a substance on the basis of direct or indirect contact or exposure. This is especially relevant when nothing in the indirect contact has been documented as possibly changing the nature of the substance with respect to toxicity or corrosiveness levels. For example, nothing in the evidence suggests that the substance was deflected off another liquid or material that could have diluted the DGO.

10.14. The Regulations speak to the escape of a substance, and does not reference how toxicity levels are achieved. A substance is either toxic, or it is not. The SDS classification of DGO is clear on that subject. How the release impacts the physiology, health and safety of a worker can be argued in terms of medical response. It does not offer an opportunity to redefine the chemical properties of the substance.

10.15. Based on this analysis, and relying on the significance of the SDS supplied by CCRL, this Adjudicator is satisfied that the DGO meets the test of s. 9(1)(e) of the Regulations as a product that is either corrosive or toxic, or both. Hence, it is my ruling that s. 9(1)(e) applies.

10.16. With respect to the interpretation of s. 8(1) of the Regulations in the context of this Incident, we know that the Incident did not result in the death of a worker, nor did it result in the hospitalization of a worker for 72 hours or more.

10.17. However, s. 9(1) of the Regulations expands the test of the provisions of s. 9(1)(e) to include the possibility of such outcomes. It defines a dangerous occurrence as *"any occurrence that does not result in, but could have resulted in, a condition or circumstance set out in subsection 8(1)".* As such, an incident only has to offer the potential of death or hospitalisation for a duration of 72 hours or more in order to meet the test. The language of the section does offer guidance on the assessment of the probabilities of such outcomes. It does not reference the likelihood or reasonableness of such probability. It only suggests an assessment of the possibility. The words *"but could have resulted in"* are to be read in the ordinary context and

ordinary sense within the intent of the Act, and must therefore be interpreted within the objectives of the Legislation and Regulations which are to protect workers, promote safe workplaces and prevent and mitigate hazardous practices.

10.18. I also note that s. 9(2) of the Regulations requires that notice be given to the Division whether or not a dangerous occurrence has resulted in an injury:

> *"An employer, contractor or owner shall give notice to the division as soon as is reasonably possible of any dangerous occurrence that takes place at a place of employment, whether or not a worker sustains injury."*

10.19. I am also satisfied that the SDS supplied by CCRL identifies DGO as a potentially toxic and corrosive product harmful to workers.

10.20. Leaving the issue of toxicity for a moment, one must also consider that the DGO escaped at a temperature between 121 and 367 Celsius, which is well above the boiling point of water, and made contact with the worker's eye and skin surface. One can easily reasonably understand how the Incident could have resulted in a lengthy stay of the worker under hospital care. It is my opinion that the language of the Regulations does not require events listed in s. 9 to be the direct or sole cause of potential death or hospitalization to satisfy the test of the legislation. While one of those events must occur, nothing suggests that hospitalization (or death) must be the sole and direct cause of the injury.

10.21. It was established that the affected worker was not hospitalized for 72 hours or beyond.

10.22. The Regulations do not require a worker to be injured as a result of the release of a toxic or corrosive substance for the incident to be reported to the Division. In this appeal, it only requires that the dangerous occurrence could have resulted in extended hospitalization (or death) to exist (cf. 9(1)). I am satisfied that such circumstances existed.

11. Conclusion

11.1. In light of all the foregoing, after having carefully reviewed all of the evidence submitted by both parties, acknowledging the facts in this matter, and giving due consideration to the legislation, I have reached the conclusion that the Director's Decision dated May 29, 2018, with respect to this matter, should stand.

11.2. Accordingly, for all of the above reasons and considerations, this Appeal is hereby DENIED.

Dated at Regina, Saskatchewan, this 20th day of January, 2020.

Laurent Mougeot, Adjudicator

Right to appeal adjudicator's decision to board

Appeal

4-8

(2) A person who is directly affected by a decision of an adjudicator on an appeal pursuant to Part III may appeal the decision to the board on a question of law.

(3) A person who intends to appeal pursuant to this section shall:

(a) file a notice of appeal with the board within 15 business days after the date of service of the decision of the adjudicator; and

(b) serve the notice of appeal on all persons mentioned in clause 4-4(1)(b) who received the notice setting the appeal or hearing.

(5) The commencement of an appeal pursuant to this section does not stay the effect of the decision or order being appealed unless the board orders otherwise.