



**Saskatchewan  
Ministry of  
Labour Relations and  
Workplace Safety**

**Occupational Health and Safety**  
122 3rd Avenue North  
SASKATOON SK S7K 2H6  
Work: 933-7147  
Toll Free: 1-800-667-5023  
Fax Number: 933-7339

## Notice Of Contravention

Ref. No. NC-KLO-0038  
Employer File No. 1603

Contravention by	Saskatoon Regional Health Authority
Address	410 22nd St E SASKATOON, SK S7K 5T6
Name of Employer	Saskatoon Regional Health Authority
Employer Address	410 22nd St E SASKATOON, SK
Place Where Contravention Occurred	St Mary's Villa - Saskatoon RHA Box 1360 1109 13th St HUMBOLDT, SK S0K 2A0

05 December 2011

Karen Loyns

Date of Inspection

Occupational Health Officer

### Notes

"This report is being copied to the Chief Executive Officer of the Health Region to:

- Assist them in monitoring overall compliance in the region,
- facilitate executive management commitment to injury and illness prevention, and
- Distribute, and assign corrective actions to the VP or Senior Manager with the corresponding responsibility."

On December 29, 2010, officer contacted a consultants from Saskatoon Regional Health Authority, People Strategies, Occupational Health & Safety regarding the presence of carbon monoxide in St. Mary's Villa on December 26, 2010. Officer became aware of the incident following a media report.

A request was made for information on increased levels of carbon monoxide in St Mary's Villa at Humboldt, Saskatchewan. The details provided were that a "Faulty Boiler and ventilation which caused carbon monoxide levels to build up on the unit". The details provided to the division was not specific to the results of the SaskEnergy monitored carbon monoxide levels in the "Dust wing", workers degree of exposure to the carbon monoxide on the dust wing or detailing the extent of their symptoms.

This officer served a Notice of Contravention, NC-KLO- 0023 to the employer for failure to notify the Occupational Health and Safety Division as soon as reasonably possible of the dangerous occurrence that occurred on December 26, 2010. Following the request of this officer, notification of the Dangerous Occurrence was faxed to the Ministry of Labour Relations and Workplace Safety. Officer completed Officer Report, OR-KLO-0133 regarding this matter.

The Saskatoon Regional Health Authority and SaskEnergy report noted that the "Boiler Room" and "Dust Wing" was ventilated by opening doors and windows prior to monitoring the carbon monoxide levels. SaskEnergy monitored the carbon monoxide levels and noted: when entering building carbon monoxide level of 25ppm; "boiler room" was 18ppm; affected wing, "Dust

Wing" was 43ppm; non ventilated room on "Dust Wing" was 63ppm.

The Temporary Manager contacted SaskEnergy at 0338 hrs and requested that the air be monitored as workers noted a "funny smell." The SaskEnergy Service Technician on call was dispatched from Watrous at 0338 hrs (approx) and he arrived at St Mary's Villa at 0503 hrs. On December 26, 2010 at 0530 hrs, SaskEnergy advised the Temporary Manager that the facility should be evacuated due to the presence of carbon monoxide in St. Mary's Villa.

Through the transcript documentation of EMS, officer noted the following information; that EMS was contacted, MD Ambulance was dispatched at 0611 hrs and ambulance requested that EMS contact the Fire Department to attend. Fire department dispatched at 0615 hrs and followed by the RCMP. Prior to the Fire Department entering the building the carbon monoxide levels were monitored.

Several investigation reports were completed regarding the incident and related causes of the carbon monoxide accumulation at St Mary's Villa, in Humboldt, Saskatchewan. Through this officer's review of information and investigation of the incident the following contraventions are being issued to this employer:

For further information is required please contact this officer at (306) 933-7147.

**This Notice of Contravention Report contains 6 contravention(s)**

Item No.	Contravention	Shall Be Remedied By Day Month Yr
1	<p>Boilers and pressure vessels OHS Reg 26 The employer failed to complete maintenance as per manufactures recommendations and as pursuant to section 26 of The Occupational Health and Safety Regulations, 1996 which requires an employer to ensure that any boiler or pressure vessel used at a place of employment that is not required to be inspected or registered pursuant to The Boiler and Pressure Vessel Act is properly constructed and maintained.</p> <p>The Rendamax Hydronic Boiler, Serial # 019190-071 is a R2000 series, model number R2122 with a maximum input capacity of 517.9 kW (1,767, 000Btu/hr). Pursuant to The Boiler and Pressure Vessel Act, 1999, Section 3(1)(g) the Rendamax Hydronic Boiler is not inspected as the heating surface is less than three metres squared.</p> <p>Through the investigation officer obtained "Daily Maintenance Logs" from the Maintenance Department. The documentation noted ongoing concerns with the operation of the boiler. Officer was forwarded and obtained external service billings regarding work which was required to be completed to address repair of the Rendamax boiler. Officer requested documentation regarding the regular maintenance of the Rendamax Hydronic Boiler. The employer did not forward maintenance documentation which was consistent</p>	

with the manufactures recommendation on the inspection and maintenance of the Rendamax Hydronic.

In accordance with the "Rendamax Technologies Inc., R2000 & R18 Series Boiler, Installation and Operating Instructions Manual," Officer was informed the operators manual was not present at work site at time of inspection. Officer was also informed that there was no service contract for regular service of the boiler, but repairs occurred when the boiler needed repair. The manufacture recommends daily, semi annually and annual inspection and maintenance.

The SaskPower Occurrence Report noted that the Unit #1, Rendamax Boiler was removed from service.

This contravenes section 26 of The Occupational Health and Safety Regulations, 1996.

An employer, contractor or owner shall ensure that any boiler or pressure vessel used at a place of employment that is not required to be inspected or registered pursuant to The Boiler and Pressure Vessel Act is properly constructed and maintained.

At the time of inspection officer directed the employer to ensure that any boiler or pressure vessel used at a place of employment that is not required to be inspected or registered pursuant to The Boiler and Pressure Vessel Act is properly constructed and maintained immediately.

Immediately

2

Ventilation - mechanical, Cleaning and maintaining ventilation systems  
OHS Reg 66 and 67

The employer failed to ensure that:

1. The mechanical ventilation system was sufficient to protect the workers against the inhalation of a contaminant and that all parts of the mechanical ventilation system were inspected and maintained by a competent person at a frequency that is sufficient to protect the health and safety of the workers pursuant to Sections 66(1) and 67(2) and to maintain inspection and maintenance records as per Section 67(4).
2. Ventilation openings were kept free of obstruction as required by Section 67(3).
3. Carbon monoxide and other contaminants were exhausted free and clear of this place of employment as required by Section 66(4)(a).

The Saskatoon Health Region Investigative report (page 27) describes the preventive Maintenance routines as follows: "maintenance staff document boiler pressure and temperatures in boiler log records once a day. In addition, a log sheet is maintained to confirm the belts are checked and greased in the fall and in spring seasons". The report does not indicate that

further preventive maintenance is done.

The employer did not forward requested documentation regarding the inspection and maintenance of the safe operation of the ventilation and ducting system.

A relief vent in the mechanical room had been partially blocked with insulation. Reports indicate that the partially-blocked relief vent contributed to the accumulation of carbon monoxide in the mechanical room. The SaskPower, Gas and Electrical Inspection Division, Occurrence Report noted that "Johnson Controls removed insulation from the relief air opening, described as 70% restricted and repaired gas leaks."

The Officer was informed of openings around the heating coil and other openings in the make-up air unit. The SaskPower, Gas and Electrical Inspection Division, Occurrence Report indicated that "openings contributed to the depressurization of the mechanical room. This depressurization caused flue gases from the boiler(s) to be drawn into the mechanical room from the boiler draft hoods." "Air from the mechanical room containing CO and other flu gas by products were drawn into the openings around the heating coil and other openings of the make-up air fan and distributed throughout the affected hallway."

This contravenes section 66(1)(b)(4)(a) and 67(3)(4) of The Occupational Health and Safety Regulations, 1996.

"66(1) An employer, contractor or owner shall provide a mechanical ventilation system in a place of employment that is sufficient and suitable to protect the workers against inhalation of a contaminant and to prevent accumulation of the contaminant and ensure that the mechanical ventilation system is maintained and properly used, where any work, activity or process in the place of employment gives off:

(b) substantial quantities of contaminants of any kind.

(4) An employer, contractor or owner shall ensure that contaminants removed by a mechanical ventilation system required by subsection (1) are:

(a) exhausted clear of the place of employment;  
and

67(2) An employer, contractor or owner shall ensure that a competent person inspects and maintains all parts of a mechanical ventilation system, cleans all louvres and replaces or adequately cleans all filters at a frequency that is sufficient to protect the health and safety of the workers.

(3) An employer, contractor or owner shall keep all ventilation openings free of any obstruction or source of contamination.

(4) An employer, contractor or owner shall ensure that a record of all inspections, maintenance and cleaning of a mechanical ventilation system required by sub-section 66(1):

- (a) is made by the competent person who performs the work; and
- (b) is readily available for examination by the committee, the representative or, where there is no committee or representative, the workers.

The employer shall ensure that a competent person maintains the mechanical ventilation system and that the ventilation system is properly used to prevent the accumulation or inhalation of a contaminant and that all ventilation openings are free of obstruction. The employer shall ensure and that a record of all inspections, maintenance and cleaning of the mechanical ventilation system required by section 66(1) are completed and readily available for examination by the committee by January 16, 2012.

16 January 2012

3

Supervision  
OHS Reg 17

The employer has not ensured that the work is competently and sufficiently supervised, as evidenced by the regional and facility supervisor's failure to have sufficient knowledge of their duties and responsibilities. Workers were expected to continue work and nursing care at the workplace after carbon monoxide concentrations were confirmed in the dust wing. Neither were workers informed of the nature and the extent of the health effects caused carbon monoxide after its presence had been confirmed in the workplace.

Some workers were provided with disposable particulate respirators which are not adequate protection against carbon monoxide

The system of local and regional supervision have not ensured workers working under their direction complied with the Occupational Health and Safety Act, 1993 and any regulation made pursuant to the Act. The supervisor failed to ensure that workers performed safe operation and maintenance of the ventilation system and Rendamax Hydronic Boiler. Also, workers did not have access to the "Rendamax Technologies Inc., R2000 & R18 Series Boiler, Installation and Operating Instructions Manual."

Secondly, when asked for the documentation of the inspection and maintenance of the ventilation system and Rendamax Hydronic Boiler the supervisors were unable to provide any written documentation pursuant to section 25, 26 and 67 of The Occupational Health and Safety Regulations, 1996.

Officer was informed that a local maintenance supervisor pulled out the burners of the Rendamax Hydronic Boiler in October 2010, to clean the burners for the winter heating season. In accordance with the "Rendamax Technologies Inc., R2000 & R18 Series Boiler, Installation and Operating Instructions Manual," a service technician is required to remove the burner tray and clean the burners.

This contravenes section 17(i)(ii) of The Occupational Health and Safety Regulations, 1996.

17(1) An employer shall ensure that;

- (a) all work at a place of employment is sufficiently and competently supervised;
- (b) supervisors have sufficient knowledge of all on the following with respect to matters that are within the scope of the supervisor's responsibility:
  - (i) their duties and responsibilities;
  - (ii) the Act and any regulations made pursuant to the Act that apply to the place of employment;
  - (iii) any occupational health and safety program at the place of employment;
  - (iv) the safe handling, use, storage, production and disposal of chemical and biological substances;
  - (vii) any other matters that are necessary to ensure the health and safety of workers under their direction; and

Supervisors must comply with the Act and any regulations made pursuant to the Act that apply to the place of employment and ensure that the workers under their direction comply with the Act and those regulations.

A supervisor shall ensure that the workers under the supervisor's direction comply with the Act and any regulations made pursuant to the Act that apply to the place of employment by February 29, 2012.

29 February 2012

4

Training  
OHS Reg 19

The employer has not ensured that the on site maintenance supervisor and workers are adequately trained to protect their health and safety.

Firstly, officer was informed that workers have not received a general orientation prior to the commencement of work which includes training within the meaning of the regulations and have sufficient experience to perform the work safely and in compliance with the Act and regulations. This means training in all matters necessary to protect their health and safety as required by Regulation 19..

Workers currently receive training through a buddy system in the facility areas which they will work. The employer has no written record of the training and no identification of workplace hazards, which workers are required to received in order to work safely in the maintenance department.

Secondly, the employer has not ensured that the on site maintenance supervisor and workers are adequately trained to protect their health and safety in the safe use and maintenance of the Remdamax Hydronic Boiler

and ventilation system.

Officer requested the "Rendamax Technologies Inc., R2000 & R18 Series Boiler, Installation and Operating instructions Manual." Officer was informed that the Installation and Operating Manual to ensure safe operation and maintenance of the boiler was not at the worksite, is not used in the safe operation of the Rendamax Hydronic Boiler and was not used in the training of the safe operation of the Rendamax Hydronic Boiler.

The Rendamax Hydronic Boiler has a heating surface which is less than three square metres therefore, the workers are not required to have a fireman's ticket. The on site maintenance supervisor and the maintenance worker who was on shift on December 25, 2010 and December 26, 2010 were not trained in the safe operation and maintenance of the Rendamax Hydronic Boiler and did not have access to the "Rendamax Technologies Inc., R2000 & R18 Series Boiler, Installation and Operating Instructions Manual."

Thirdly, the employer has not ensured that all workers are adequately trained in other matters to protect their health and safety, as the employers written training records noted that workers which were on shift were not trained in the three basic rights: right to know; to participate and right to refuse.

This contravenes section 19(1)(2)(e)(f)(4)(a)(b) of The Occupational Health and Safety Regulations, 1996.

Comply by ensuring all workers have been trained within the meaning of the regulations and have sufficient experience to perform the work safely and in compliance with the Act and regulations. This means training in all matters necessary to protect their health and safety as required by Regulation 19.

This includes:

(2)(d) precautions to be taken for the protection of the worker from physical, chemical or biological hazards;

(e) any procedures, plans, policies and programs that the employer is required to develop pursuant to the Act or any regulations made pursuant to the Act that apply to the worker's work at the place of employment; and

(f) any other matters that are necessary to ensure the health and safety of the worker while the worker is at work.

(4) An employer shall ensure that no worker is permitted to work unless the worker:

(a) has been trained, and has sufficient experience, to perform the work safely and in compliance with the Act and the regulations.

(b) is under close and competent supervision.

"Train" is defined by the section 2 of the regulations to mean: "to give

	<p>information and explanation to a worker with respect to a particular subject-matter and require a practical demonstration that the worker has acquired knowledge or skill related to the subject matter."</p> <p>The officer recommends that the employer develops and implements a plan for training supervisors and workers in safe work practices and procedures as required (or described) by Section 22(1)(g) of the regulations.</p>	<p>29 February 2012</p>
<p>5</p>	<p>Accumulations, spills and leaks OHS Reg 310</p> <p>The employer did not develop in consultation with the occupational health committee, a written emergency plan to address the accumulation of carbon monoxide and the possibility of harmful exposures. The employer did not ensure competent persons, equipment and supplies were available for the prompt, safe and effective containment of the CO leak and accumulation. Neither did the employer provide such a plan to employees or provide them with appropriate training as to how to respond to a carbon monoxide accumulation. As a result appropriate emergency procedures were not implemented.</p> <p>A "Code Brown" emergency response is used by the Region for responding to releases or spills of chemical substances that may be hazardous to the health or safety of a worker. The Code Brown response was not initiated because the "Code Brown" emergency response plan did not include a recognition of Carbon Monoxide as a chemical substance that may be hazardous to the health or safety of a worker .</p> <p>The investigation report of the Saskatoon Health Region indicated that the potential of carbon monoxide being a source of poisoning was never considered or integrated into the epp plans.</p> <p>The Temporary Manager directed workers to continue nursing care at the workplace with the suspected knowledge of possible carbon monoxide present in St. Mary's Villa and confirmed knowledge of the presence of carbon monoxide in the "Dust Wing."</p> <p>Following confirmed knowledge of the presences of carbon monoxide in the facility dietary and nursing care workers the managers allowed workers to continue to work and some workers were directed to assist with the evacuation and relocation of residents to an alternate location in the facility. Workers were not provided with immediate protection from the carbon monoxide with effective provisions.</p> <p>This contravenes section 310 of The Occupational Health and Safety Regulations, 1996.</p>	

Where there is a possibility of an accumulation, spill or leak of a chemical substance or biological substance that may be hazardous to the health or safety of a worker at a place of employment, an employer:

- (a) in consultation with the committee, shall develop written emergency procedures to be implemented in the event of an accumulation, spill or leak;
- (b) shall make readily available for reference by workers a copy of the emergency procedures developed pursuant to clause (a);
- (c) shall ensure that each worker is trained in and implements any of the emergency procedures developed pursuant to clause (a) that:
  - (i) require the involvement of the worker; or
  - (ii) are necessary to protect the health or safety of the worker;
- (d) shall ensure that competent persons, equipment, supplies and personal protective equipment are available for the prompt, safe and effective containment, neutralizing and decontamination of any accumulation, spill or leak; and
- (e) shall ensure that the emergency procedures developed pursuant to clause (a) are implemented in the event of an accumulation, spill or leak.

The employer, in consultation with the committee, shall comply by ensuring that written emergency procedures are implemented in the event and; includes all chemical substances where there is a possibility of accumulation, spill or leak that may be hazardous to the health or safety of a worker at a place of employment and; shall ensure that competent persons, equipment, supplies and personal protective equipment are available for the prompt, safe and effective containment, neutralizing and decontamination of any accumulation, spill or leak;  
by January 31, 2012.

31 January 2012

6 General Duties - employers  
Act 3

The employer has not, insofar as it is reasonably practicable, ensured the health, safety and welfare of its workers, in that the failure to ensure worker training, maintenance and inspection of the work completed to ensure it meets the standard and safe operation of the boiler and ventilation system.

Secondly, on December 26, 2010 at 0530 hrs, SaskEnergy advised the Temporary Manager that the facility should be evacuated due to the presence of carbon monoxide in St. Mary's Villa. Officer was informed that the Temporary Manager told some workers of the presence of carbon monoxide following confirmation by SaskEnergy monitoring the facility. At 0611 EMS was contacted regarding the evacuation of residents, but failed to ensure all workers on shift and workers arriving to work of the nature and degree of the effects to their health or safety of the presence of carbon monoxide in the workplace.

A dietary worker arrived to the Dust Wing and was told to complete her

work as usual. Many nursing care staff were requested to assist with the evacuation designated residents to the hospital and transportation of other residents to the St Mary's Hall.

This contravenes section 3 of The Occupational Health and Safety Act, 1993.

Comply by:

- ensure, insofar as is reasonably practicable, the health, safety and welfare at work of all of the employer's workers;
- comply with this Act and the regulations;

The employer shall comply by ensuring work which completed within St. Mary's Villa and throughout the Saskatoon Health Region complies with the Act and regulations from this time forward.

Immediately

**This Notice of Contravention Report contains 6 contravention(s)**

**Note:** Written Progress Reports are required within 7 days of the date(s) indicated in the column of this Notice headed "Shall Be Remedied By" and the person on whom the Notice was served shall provide such reports as follows:

Occupational Health Committee/Representative       Post Information for Workers       Occupational Health Officer

**Note:** Any person directly affected by this decision, may appeal to the Director of the Occupational Health and Safety Division, to amend or cancel the decision. Appeals must be in writing and delivered to the Director at the following address: 6th floor, 400 - 1870 Albert Street, Regina, SK S4P 4W1 within 21 calendar days of the date of the decision. Commencing an appeal does not suspend the operation of the decision.

Noticed served on \_\_\_\_\_ Date: \_\_\_\_\_

and Received on behalf of the Employer

Name \_\_\_\_\_ Position \_\_\_\_\_ Signature \_\_\_\_\_

Copy Received on behalf of the Occupational Health Committee, Representative, or Workers:

Signature of Employee Representative \_\_\_\_\_ Signature of Employer Representative \_\_\_\_\_