

Date Issued: June 28, 2006

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**IN THE MATTER OF THE *SAFETY STANDARDS ACT*
SBS 2003, Chapter 39**

**AND IN THE MATTER OF an appeal to the
British Columbia Safety Standard Appeal Board**

BETWEEN:

An Electrical Contractor

Appellant

AND:

BC Safety Authority

Respondent

**REASONS FOR DECISION
Appeal of Compliance Order**

Board Members:

Deborah K. Lovett, Q.C., Vice-Chair
Dennis Burke
Bruce Campbell

Introduction

[1] An electrical contractor (the Appellant) filed a notice of appeal (the Appeal) with the Safety Standards Appeal Board (the Board) on April 22, 2005. By agreement with the parties, the Appeal was heard by written, rather than oral, proceedings. In an earlier related proceeding, an application by another electrical contractor to participate as an intervener in the Appeal was dismissed: BCSSAB 1 (1) 2005

Background

[2] The background facts leading to the Appeal are neither complex nor in dispute. The Appellant has been actively involved in installing power line systems for many years and is registered as a contractor under the *Safety Standards Act*, SBC 2003, c. 39 (the Act). The British Columbia Safety Authority (the BCSA) is established under the *Safety Authority Act*, SBC 2003, c. 38 for purposes of carrying on provincial activities that foster safety in the design, manufacture, disposal, construction, installation, operation, maintenance and use of technical products, equipment, systems and railways. The Authority has oversight responsibilities with respect to regulated work under the Act, including responsibility for carrying out inspections of regulated work that has been done, and ordering compliance with the Act and regulations where the regulated work is not compliant.

[3] On June 3, 2004, the Appellant applied for and was granted an electrical installation permit (the permit) allowing him to perform the following work at a location in Pitt Meadows, BC:

Convert Hydro takeover primary to three pole primary, install three 167 KVA transformers and 600V 600A service.

[4] The work described in the permit is “regulated work” for purposes of the Act and so it must comply with the Act and any applicable regulations. The regulations that apply to electrical work such as that carried out by the Appellant under the permit are the *Electrical Safety Regulation* established under the Act, and the *Canadian Electrical Code, Part 1* as amended for use in British Columbia (the *BC Electrical Code Regulation 2002*) (collectively referred to as the regulations). The *BC Electrical Code Regulation 2002* is made applicable by section 20 of the *Electrical Safety Regulation*.

[5] The parties agree that section 36-204 of the *BC Electrical Code Regulation 2002* applies to the permit work. This section provides:

Overcurrent protection

- 1) Each consumer's service, operating unit of apparatus, feeder and branch circuit shall be provided with overcurrent protection having adequate rating and interrupting capacity in all ungrounded conductors by one of the following:
 - a) A circuit breaker; or
 - b) Fuses preceded by group-operated visible break load-interrupting device capable of making and interrupting its full load rating and which may be closed with safety to the operator with a fault on the system; or

- c) Fuses preceded by a visible break air-break switch capable of interrupting the magnetizing current of the transformer installation and which may be closed with safety to the operator with a fault on the system and so interlocked with the transformer's secondary load interrupting device to prevent its operation under load.
- 2) Fuses shall be accessible to authorized persons only.

[6] After the Appellant obtained the permit, the regulated work carried out was inspected and approved on more than one occasion by a BCSA Electrical Safety Officer. With respect to these inspections, no concerns about non-compliance with the Act or regulations were noted.

[7] During a period of some five months starting in July 2004, one of the BCSA's Electrical Safety Officers and an Electrical Safety Manager were contacted by a business competitor of the Appellant's who expressed concerns about the regulated work, including concerns about the high voltage switch installation. This triggered a physical inspection by a BCSA Electrical Safety Officer on October 26, 2004. The inspection report that followed identified some aspects of the work that were not compliant with the Act and governing regulations, however no reference was made to the lack of overcurrent protection for the consumer's service. The identified deficiencies were subsequently remedied by the Appellant.

[8] Another complaint was received by the BCSA about the regulated work. This resulted in another physical investigation of the regulated work. This time the inspection report of the Electrical Safety Officer identified as a non-compliant deficiency the lack of overcurrent protection for the consumer's service. The Appellant was therefore ordered to bring the regulated work into compliance by installing the necessary overcurrent protection.

[9] On February 3, 2005 the Appellant asked for a review of the Electrical Safety Officer's decision requiring him to install the overcurrent protection, as he is entitled to such a review under the Act. The decision was reviewed by the Electrical Safety Manager who confirmed the Electrical Safety Officer's earlier decision on March 2005. The Appellant has appealed this decision to the Board.

The Positions of the Parties

[10] The Appellant described the installation performed under the permit in greater detail as follows:

The installation which I did under the permit consists of a three pole, 3 phase private primary line with two transformer banks, each with its own set of fuses, and a load break switch on the first pole ...

The project consisted of converting an existing three phase BC Hydro owned pole on private property to a privately owned three pole primary line. It also included a new 600A 347/600V three phase service to a warehouse addition.

As is common practice, prior to starting the project, I submitted a drawing ... to the BC Hydro representative in the area ... This is a requirement in order to gain approval to construct any private primary line. I also met with [the representative] on site, as I often do, to discuss the logistics of the job.

Because the line was existing, Hydro already had a set of over-current devices (cutout fuses) protecting their tap to the customer's private property as well as their equipment on the customer's property ... I asked [the representative] if he wanted us to install a set of fuses on the customer's pole once we converted it. After consulting with the line supervisor [the representative] stated that BC Hydro would leave their existing fuses in place and would not require a second set of fuses installed on the customer's pole. By making this statement, BC Hydro has indicated that they are willing to take on the responsibility for protecting this line.

This arrangement is common practice for private lines in the area as shown in the photographs of other sites ... which do not have a second set of fuses installed on the customer's switch pole. Up until now, these lines have been accepted by BC Hydro and the regulator as safe installations.

[11] Reduced to its essentials, the Appellant's position is that, notwithstanding the strict requirements of section 36-204 of the *BC Electrical Code Regulation 2002*, it has not generally been enforced where BC Hydro has agreed to leave its existing fuses in place. The Appellant pointed to a number of other lines in the area which are not compliant with the section to support his contention that compliance with the section has not been routinely or consistently enforced. From the Appellant's perspective, this suggests that the BCSA has in fact endorsed or approved the practice in the past. The point is also made that the cost of compliance may well mean the difference between an unsuccessful bid and a successful one.

[12] The Appellant also maintains that the installations are safe and that, viewed in proper context, they conform with the intent of section 36-204:

... One important purpose of the Canadian Electrical Code is to ensure public safety with respect to electrical installations, in this case, by providing over-current protection to the primary conductors. Just because the fuses are on the

line side of the switch does not mean that they are not there and are not providing protection. In fact, I would argue that having the fuses on Hydro's pole is a safer situation. This way, if the fuses do trip, Hydro would be replacing them (a job which they are obviously equipped to handle). If the fuses were to trip on the customer's pole, he would have to rely on a private contractor to come and change them. There are a number of contractors out there capable of doing this, but there are also many more that do not understand the danger and may try to refuse the line without the proper knowledge or equipment. The owner himself may even try. They point is, satisfying rule 36-204 to the letter, in my view, actually introduces an unnecessary risk to the owner and contractors.

BC Hydro is willing to take on the responsibility to provide and maintain the fusing and it would seem reasonable to let them do that. The Safety Authority recognizes that the fuses are installed to protect Hydro's tap and that they "doubt that they would remove them" ... If they protect Hydro's tap, they protect everything else since all of the equipment is rated the same electrically ...

If this line was constructed as a Hydro takeover line, it would have been constructed exactly as it is now, except there would not be a load break switch on the first pole. The over-current protection would be where it is now, and there would be no question as to the safety of this installation. Making the line a private line and inserting a load break switch does not change the electrical function of the line and does not make it unsafe. All it does is provide a disconnect point.

[14] Another point made by the Appellant relates to the logistical difficulties associated with bringing the non-compliant pole lines into compliance, given that it may not be an easy task to locate the installer. Also, installing fuses on the customer's pole would require permits and a Hydro outage which, according to the Appellant, would be an expensive endeavour for all contractors involved.

[15] The present lack of consistency in the enforcement of section 36-204 is emphasized by the Appellant. If it is truly a safety requirement, then the Appellant believes it is unfair for the BCSA to rely solely on complaints made about particular installations.

[16] The BCSA, in response, makes the point that BC Hydro is not regulated under the Act and thus the BCSA has no regulatory oversight authority over the utility and section 36-204 has no application to it. Rather BC Hydro is wholly regulated under a different legislative regime, the *Utilities Commission Act*. That regulatory structure differs in many respects from the one established under the Act. Because of this, BCSA asks:

... if BC Hydro cannot be compelled to ensure compliance with the Code and Act in installations across the province, how is the Authority to guarantee that appropriate overcurrent protection is in place and that is maintained over time? What if the BC Hydro fuses failed to operate or were tripped and not replaced? Should the property owner or someone else suffer and injury as a result of the

overcurrent protection not being in place the Safety Authority would be criticized for not having enforced the Code in the first place.

A more reasonable approach is to limit the analysis regarding compliance to the equipment is under the control of the private owner and who is subject to the requirements of the Act and Code. To do otherwise would introduce an element of uncertainty in enforcement that is inconsistent with the spirit of Section 52(1) of the Act

[17] In support of their position, the BCSA produced an expert report which expressed the opinion that, from a safety perspective, there is a major difference between the regulatory regimes established under the Act and the *Utilities Commission Act*:

Regulation under the *Utilities Commission Act* is “objective” based. The Utility (BC Hydro in this appeal) employs a large engineering department and a workforce trained to meet both the requirements of BC Trades Qualification and the specific utility environment....

Regulation under the *Safety Standards Act* is “prescriptive”. The Safety Authority has responsibility for dealing with a large number of independent contractors, the majority of who do not have in-house engineering support or the broad technical base of the utilities. Consistency within the Authority’s jurisdiction requires a strict adherence to the provision of the *Safety Standards Act*, Regulations, and the *BC Electrical Code*.

The BC Hydro fuses, that the appellant claims satisfy the protection requirement under Rule 36-204(1)(b) are intended to protect their tap and provide coordination with their sub-station. It is not practical to assume that BC Hydro will undertake to ensure that their equipment will, today and in the future, protect the consumer’s service equipment.

[18] The BCSA makes the point that, as the Act and regulations are prescriptive; they set out legislated minimum safety-based requirements that must be met or exceeded. While the initial two inspections carried out by the Electrical Safety Officer did not identify any non-compliance with the Act and regulations, section 20(4) of the Act empowers safety officers to re-inspect regulated work. If the BCSA receives a third party complaint about regulated work, as in this case, the BCSA has an obligation to investigate that complaint. The BCSA says that although it “is unfortunate that the non-compliance was not identified at the outset” this is not a basis for exempting the Appellant from the legislated standard.

[19] Finally, the BCSA acknowledges that there may be many other non-compliant installations across the province. It has recognized that work needs to be done “with respect to training a diligence in responding to inspection requests for high voltage installations of this nature”. Such training for safety officers has and will continue to be

provided to ensure increased vigilance. Additionally, all installations identified by the Appellant as being non-compliant are now under active investigation by the BCSA.

[20] To the extent the Appellant's concern is that inconsistent enforcement creates an economic advantage to some, the BCSA says this is not a factor that should be taken into account by the Board in making its determination.

Analysis

[21] The issue that the Board is required to consider is very narrow. That issue is whether the Appellant was in compliance with section 36-204 of the *BC Electrical Code Regulation 2002* and, if not so compliant, whether there is any legal basis on which the Appellant can be exempted from its application.

[22] In the Board's view, section 36-204 is clear and unambiguous in its requirements and leaves no room for any other "less restrictive" interpretation in the Appellant's favour. The evidence is clear that the regulated work carried out under the permit does not conform to the "strict" legislated requirement. Accordingly, all that remains to be considered is whether the arguments advanced by the Appellant constitute a proper basis on which this Board can uphold his appeal. In the Board's view they do not.

[23] The Act does not give the Board any legal authority to exempt the Appellant from section 36-204 of the *BC Electrical Code Regulation 2002*, regardless of the circumstances. While the Appellant feels that he has been singled out unfairly, and while the Board is troubled by the fact that there appear to be a number of other installations that are equally non-compliant, the BCSA (which is a relatively newly established authority) has taken, and continues to take, steps to bring these other installations into compliance and to ensure that its safety officers receive appropriate training. Additionally, as the BCSA indicated, if the Appellant wished to obtain a variance from a legislated requirement, he could have followed the process in place under the Act for doing so.

[24] While it is not germane to our finding, in the Board's view, the initial documents provided to the BCSA were inadequate in that detailed plans and specifications of the proposed installation were not provided. Nor did the BCSA require the Appellant to provide them as it could have done under Electrical Bulletin 2-1-0, issued under the *BC*

Electrical Code Regulation 2002. That Bulletin indicates that, with respect to all high voltage services, plans and specifications should be legible and include (in addition to equipment layouts as referenced in Bulletin 36-4) a “[o]ne-line diagram, load calculation complete with demand factors, available fault current, fault interrupting capacity of each protective device where the available fault current exceeds 10KA”. Had such plans and specifications been required to be produced in the first instance, the Board believes it would have been apparent to the BCSA that they did not comply with section 36-204 at the permit approval stage. The Board therefore strongly recommends the BCSA consider requiring such documentation with respect to these types of installations in future.

Conclusion

[25] For the reasons given, the Board hereby dismisses the Appeal.