

## **Faulty Design and Foreseeability: How High Is Up?**

**By R. Bruce Reynolds and Sharon C. Vogel  
(Partners at Borden Ladner Gervais LLP specializing in  
Construction and Surety law)**

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### **CASE COMMENT ON**

### **ALGONQUIN POWER (LONG SAULT) PARTNERSHIP v. CHUBB INSURANCE**

### **COMPANY OF CANADA (UNREPORTED) MAY 23, 2003**

In a recent decision of Madam Justice Susan Lang of the Ontario Superior Court of Justice a faulty design exclusion in an “all risks” policy of insurance was considered. The most interesting aspect of the case is its consideration of the foreseeability test as applied by Ontario courts.

The facts of the case involved a hydroelectric dam known as the Long Sault Project (the “Project”) owned by N-R Power Partnership and Algonquin Power (Long Sault) Partnership (the “Partnership”). The dam crossed the Abitibi River 15 km north of Cochrane, Ontario. The Project was designed by Acres International Limited (“Acres”) and constructed by McNamara Construction Company (“McNamara”). The Project was insured by Chubb Insurance Company of Canada (“Chubb”).

On November 27, 1997, during the course of the final stage of commissioning the dam, it became evident that it was experiencing a potential failure. The Partnership’s resident engineer/project manager/site representative, Arne Kleppe promptly lowered the head pond, thereby averting the dam’s complete washout. Subsequent investigations identified large voids in the subsurface soil. The Acre’s design had assumed that the natural glacial till embankments and bedrock were sufficiently impermeable to prevent water from seeping through, under, or around the dam.

The Partnership bought claims against Acres and McNamara and against Chubb. The Acres and the McNamara actions settled but the action against Chubb proceeded to trial. The focus of the

trial decision of Lang J. was the cause of the dam failure as it related to the applicable insurance provisions.

The Partnership claimed coverage under the applicable “all-risks” insurance policy on the basis that “sinkhole collapse” was a Named Cause of Loss. The policy listed Named Cause of Loss, including sinkhole collapse, as an exception to an exclusion (other than the faulty design exclusion which provided no exception for sinkhole collapse). The Partnership argued that the wording of the policy raised sufficient ambiguity for the court to find coverage.. Further, the Partnership argued that its remediation efforts were recoverable under the policy’s “sue and labour” coverage. Finally, the Partnership argued that coverage was available on the basis that the loss was not foreseeable at the time of entering into the insurance agreement, and that coverage was within its reasonable expectation in the circumstances that developed.

Chubb took the position that the loss was excluded from coverage because a “faulty design” exclusion applied. In particular, Chubb took the position that the Partnership failed to design and construct the Project in a manner that took into account the permeability of the south abutment. In addition, Chubb argued that the Partnership failed to properly design and construct the “notch” area of the south dam.

It was agreed by counsel that the insured satisfied the initial onus of proving physical loss to insured property, thereby engaging the policy. It was further agreed that the insurer bore the onus of proving any applicable exclusion and that the insured bore the onus of proving any applicable exception to that exclusion.

The decision contains a detailed discussion of the geotechnical investigation conducted in 1993 by Geocon (which recommended further investigation of the south abutment area by boreholes), the observations made during construction of the Project, the limited post-event investigations, and the findings made during remediation. Lang J. concluded that the dam failure resulted from cracks and sink holes that were a manifestation of a loss of subsurface soil. Water was moving through the abutment, removing soil as it flowed and leaving a vacuum behind that could not support the soil above (“hydraulic piping”). She then considered the applicable provisions of the policy under consideration.

The Partnership argued that the hydraulic piping failure was not in the Partnership's contemplation, either objectively or subjectively, at the time it entered into the insurance contract and that therefore the event was fortuitous and the Partnership was entitled to coverage. The Partnership argued that the event was fortuitous because the Partnership did not know at the time it bought coverage that anything, faulty design or otherwise, would lead to the dam's failure. In rejecting this argument Madame Justice Lang stated as follows:

“...The argument confuses foreseeability and fortuity. If the event was non-fortuitous, there is no insurance coverage. If the event was fortuitous, as it was here, whether the event is insured depends on the terms of the particular policy.

An insurer is not obliged to provide coverage solely because an insured did not, whether subjectively or objectively, anticipate the cause of a loss. An “all risks” policy provides coverage against all fortuitous losses, unless the loss is specifically excluded. It is a first principle of insurance law that coverage is not available if the loss was not fortuitous. It does not follow that because the event was fortuitous, coverage must be provided. While an insurer attempting to exclude coverage may argue the event was non-fortuitous, the insured is not automatically entitled to coverage for every fortuitous event. Chubb agrees that this loss was fortuitous. This does not guarantee coverage, it just means that the loss is not automatically excluded.” (p.34-35)

Madame Justice Lang subsequently discussed the applicability of the foreseeability test in the context of the faulty design exclusion:

In her decision, Madam Justice Lang also considered the following arguments raised by the Partnership:

- the application of the doctrine of the reasonable expectations of the parties;
- whether the term “structures” in the Subjects of Insurance included the abutments;
- the applicability (or lack thereof) of a provision characterized by the Partnership as a “sue and labour clause”;
- the applicability (or lack thereof) of a building ordinance provision in the policy;
- ambiguities raised by the Named Cause of Loss and Resulting Loss and Resulting Damage provisions in the policy.

She rejected each of the arguments raised by the Partnership in respect of the above-referenced issues.

The most significant aspect of the decision is the discussion related to the applicability of the faulty design exclusion. Basically, the law is that the faulty design exclusion will negate coverage if the risk and the consequences which actually transpired were foreseeable to the designer.

In commenting on the leading Ontario decision of *Foundation Co. of Canada Ltd. v. American Home Assurance Co.* (1995), 25 O.R. (3d) 36 (O.C.J.G.D.), *aff'd* [1997] O.J. No. 2332 (Ont. C.A.) she noted that:

“*Foundation* stands for the principle that an insurer cannot rely on a faulty design exclusion where the causative event was not foreseeable. The insured or the project designer must do more than simply consider **reasonably** foreseeable risks and must go further to consider **all** foreseeable risks. As a result, a designer may not have been professionally negligent in the design because all reasonably foreseeable risks were considered, however, if the designer failed to consider all foreseeable risks coverage will not be provided”. (p.50)

Lang J. accepts the departure from the test of negligence applied in the trial decision in *Foundation* stating as follows:

“Therefore, if the design of the structure was fit for its intended purpose, and the designer had accounted for all potential foreseeable risks, then the insurer would be unable to satisfy a court that the design was faulty within the meaning of the policy’s exclusion. However, if the designer had only accounted for *reasonably* foreseeable risks, then this would not be sufficient, and the insurer could prove that the faulty design exclusion applied”. (p. 50)

In considering whether the dam was fit for its intended purpose, Lang J. relied on the evidence given by Chubb’s expert to conclude that the design of the Long Sault dam contained assumptions about the impermeability of the dam, the bedrock and the abutment which assumptions were wrong. She concluded that the dam did not fulfil the purpose for which it was intended. It was not designed to take into account the foreseeable risk of hydraulic piping. The risk of the causative event of the failure and its consequences was found to be foreseeable. Therefore she applied the faulty design exclusion and found that there was no coverage available to the Partnership under the policy.

We note that the Ontario Court of Appeal has not ruled on whether or not a more onerous standard than the negligence standard should be applied to determine if a faulty or improper design exists within such an exclusion. In the *Foundation* case, the Court of Appeal dismissed the appeal and noted that the trial judge applied a foreseeability standard and specifically rejected the reasonable foreseeability negligence standard. The Court of Appeal stated as follows:

“As the standard applied by the trial judge was more onerous on the respondent than the negligence standard, we need not decide to what extent, if at all, the less onerous negligence standard may apply in determining whether a design is “faulty or defective”. We leave that question for another case. Consequently, we are satisfied that the trial judge made no error in law.”

The facts of the *Foundation* case concerned a “blow-in” of a cofferdam in the Peace River Bridge in Alberta. A “blow-in” is a sudden erosion or collapse of a portion of the rock bed of river in the vicinity of a cofferdam. *Foundation* bought an action against its insurer under an all risk policy claiming damage for the costs of repair of the cofferdam and its surrounding vicinity arguing that a “freakish, unpredictable combination of localized gas and slickenside at the location of cofferdam 3 was the precipitating event to this unforeseeable calamity.” (p.207)

The insurer took the position that the cofferdam design was deficient, arguing that the design should have required the sheet pilings to have been driven below the level of excavation to a deeper level of bedrock. The insurer, therefore, argued that the damage was excluded from coverage due to the faulty or defective design or construction of the cofferdam. Wilson J, after commenting on the evolution of the case law in this area commented that “negligence of the designer is no longer the standard for proving faulty or defective design”. (p. 232) Wilson J. stated as follows:

“The departure from the test of negligence as a prerequisite for faulty or more particularly defective design makes sense and I accept it. It would be too easy for design standards to slip, and be dictated by economic factors. Short cuts could be taken both at the insurer’s expense, and at the expense of principles of public safety. Meeting the standard of the profession at the time is not sufficient to avoid the exclusion. The onus is, however, upon the insurer to prove that the exclusion applies. To determine whether the onus of faulty or defective design has been met, the words should be given their plain and ordinary meaning. I reiterate the essence of the definitions of faulty or defective. “Faulty” implies containing faults, imperfect, unsound. “Defective” implies a product is not fit for its ordinary purpose. All foreseeable risks must be taken into account in a design. It is not a

test of “reasonably foreseeable risks” applicable in the law of negligence.” (p. 237)

Wilson J. concluded that the design of the cofferdam was sound and fit for its intended purpose but not for the unforeseeable and rare combination of a pocket of gas and slickenside. He noted that the designer took into account all foreseeable risks factors and that the insurer had not met the onus of the proving that the exclusion applied.

Madame Justice Lang in *Algonquin* applied the same legal test as that in *Foundation*, and given that the Partnership’s own witness gave evidence that piping failure causes 45-50% of earthen dam failures, it would appear that there were good grounds for concluding that the risks and consequences encountered in *Algonquin* were foreseeable. Conversely, the circumstances of a rare combination of a pocket of gas and slickenside in *Foundation* were found to be unforeseeable and this would appear to have been a reasonable conclusion. Regrettably, while these two examples seem relatively clear, it does not appear that these cases provide a meaningful set of objective criteria to assess whether a loss will be found to be foreseeable. In other words, the fact based nature of the cases renders them idiosyncratic, and, accordingly, each case of this nature will be governed by its facts.

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