Federal Court of Appeal

Cour d'appel fédérale

**Date: 20200915**

**Dockets: A-150-17**
**A-227-17**

**Citation: 2020 FCA 141**

**CORAM:** **STRATAS J.A.**
**NEAR J.A.**
**WOODS J.A.**

**BETWEEN:**

**NOVA CHEMICALS CORPORATION**

**Appellant**

**and**

**THE DOW CHEMICAL COMPANY, DOW GLOBAL TECHNOLOGIES INC. and DOW CHEMICAL CANADA ULC**

**Respondents**

Heard at Ottawa, Ontario, on June 19, 2018.

Judgment delivered at Ottawa, Ontario, on September 15, 2020.

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| PUBLIC REASONS FOR JUDGMENT BY: | STRATAS J.A. |
| CONCURRED IN BY: | NEAR J.A. |
| PUBLIC DISSENTING REASONS BY: | WOODS J.A. |

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**PUBLIC REASONS FOR JUDGMENT**

This is a public version of confidential reasons for judgment issued to the parties. There are no redactions from the confidential reasons for judgment.

**STRATAS J.A.**

[1] Before the Court is an appeal and a cross-appeal from the judgment of the Federal Court in file T-2051-10 (*per* Fothergill J.): 2017 FC 350, supplementary reasons 2017 FC 637, reasons on costs 2017 FC 759.

[2] After argument in this Court, the appeal and the cross-appeal were held in abeyance for a considerable time to allow for settlement discussions. Unfortunately, those settlement discussions were unsuccessful.

[3] For simplicity, in these reasons I will refer to the appellant as “NOVA” and the respondents as “Dow”.

[4] Broadly speaking, the appeal and the cross-appeal in this Court concern the principles that should govern the calculation of a plaintiff’s recovery under an accounting of profits. This issue arises from an earlier judgment of the Federal Court, later affirmed on appeal: 2014 FC 844, aff’d 2016 FCA 216.

[5] In that earlier judgment, the Federal Court found that NOVA was liable for infringing Dow’s patent over metallocene linear low-density polyethylene by manufacturing its product, SURPASS and selling it in competition to Dow’s product, ELITE.

[6] The question of remedy arose. The Federal Court permitted Dow to elect between an accounting of profits earned as a result of the patent infringement or compensatory damages caused by the patent infringement. Dow elected an accounting of profits.

[7] Neither the decision to allow Dow to elect nor the election itself is under appeal. The appeal and the cross-appeal exclusively concern the remedy of an accounting of profits and, specifically, the calculation of the amount Dow is entitled to receive.

[8] For the reasons that follow, I would dismiss both the appeal and the cross-appeal.

## A. An accounting of profits as a remedy for patent infringement

### (1) General principles

[9] In this area of law, judges tend not to write much about the principles they are applying and, rather, offer narrow rationales for their decisions. Sometimes in later cases, judges take these rationales as ironclad rules and apply them according to their terms. Over time, there is a risk that, through later application and refinement, the rules evolve in a way that deviates from the governing principles. Worse, as the rules get more complicated, some lawyers and even some judges, start invoking "equity" as a reason to award whatever seems, to them, appropriate and fair. Such an approach is antithetical to a legal system governed by the rule of law that prizes consistent and predictable rulings.

[10] To prevent this from happening, it is useful every once and a while to identify and explain the principles that underlie an area of law. This case presents us with an opportunity to do this in the area of an accounting of profits as a remedy for patent infringement. When we do this and when we apply the principles to the facts here, it becomes evident that the Federal Court did not commit reviewable error in deciding in the way it did. Indeed, as will be seen, except for one small area, I substantially agree with the analysis of the Federal Court.

[11] Broadly speaking, the *Patent Act*, R.S.C. 1985, c. P-4 enshrines and regulates a bargain made between inventors and the public: inventors disclose their inventions for the good of all, including the public and later inventors, and, in return, they are given a powerful monopoly for a period of time to exploit their invention. If the *Patent Act* did not do this, one would expect that many inventors would keep their inventions secret, depriving all of knowledge and know-how that can be built upon. Over time, one would expect fewer discoveries and, thus, fewer benefits for society. The Supreme Court and this Court have repeatedly explained this patent bargain in cases such as *Free World Trust v. Électro Santé Inc.*, 2000 SCC 66, [2000] 2 S.C.R. 1024 at para. 13 and *Apotex Inc. v. Merck & Co. Inc.*, 2015 FCA 171, [2016] 2 F.C.R. 202 at para. 42 (*Apotex FCA (2015)*).

[12] In the academic literature and in many university seminars, many debate whether the bargain is as beneficial for society as some contend. But in the courtroom, the debate is irrelevant. The *Patent Act*, with the bargain it enshrines and regulates, is law that binds us. By enacting the *Patent Act*, Parliament has decreed the bargain to be a social good, necessary both for the creation of wealth and the improvement of our collective welfare.

[13] Putting aside the exceptional cases where punitive damages are warranted or specific legislative provisions provide to the contrary, remedies addressing patent infringement must be consistent with the bargain. The remedies must neither overshoot nor undershoot the mark: they must neither undercut the bargain nor extend it.

[14] The *Patent Act* and the *Federal Courts Act*, R.S.C. 1985, c. F-7 specifically speak to the remedies for patent infringement. One remedy is compensatory damages: *Patent Act*, s. 55. Others include injunction, inspection and an accounting: *Patent Act*, s. 57. The Federal Courts also have the power to grant other remedies “at law or in equity” or under other Acts of Parliament: *Federal Courts Act*, ss. 20(2).

[15] Compensatory damages for patent infringement serve a particular purpose: to restore those whose patents have been infringed to the position they would have been in had the infringement never taken place. Compensation is the aim, no more, no less.

[16] In many cases, an award of compensatory damages is consistent with the bargain under the *Patent Act*. Those whose patents have been infringed are made whole for the wrongful incursion into their rights to exclusive use of the invention. In many cases, the infringer does not benefit from its wrongdoing and no incentives to infringe are created.

[17] In some cases, however, compensatory damages are inconsistent with the bargain under the *Patent Act*. An infringer can make a gain from the use of the patented invention and, in some

cases, that gain can be more than the cost of paying compensatory damages to the holder of the benefit of the patent. On a net basis, the infringer can come out ahead.

[18] If the court's remedial armoury were limited to an award of compensatory damages, in some cases infringers would have an incentive to infringe. For them, compensatory damages would be nothing more than a manageable fee to infringe the patent and earn benefits over and above the fee. Effectively, in such cases, inventors would no longer enjoy exclusive rights to benefit from their invention but rather merely a right to a fee for the unconsented-to use of their invention. Indeed, in some cases, infringers would have very strong economic incentives to invade the monopoly granted by the patent. The bargain under the *Patent Act* would be no more.

[19] Fortunately, the court's remedial armoury is not so impoverished. It has another tool by which it can protect and vindicate the patentee's right to exclusivity and, thus, the bargain under the *Patent Act*: an accounting of profits.

[20] The aim of an accounting of profits is not to compensate for injury but to remove the benefits the wrongdoer has made as a result of the infringement. By doing this, any economic incentive to infringe is removed. Potential infringers realize that they will not come out ahead if they infringe a patent and the infringement is detected—all benefits earned as a result of the infringement will be stripped from them. The availability of the remedy of an accounting of profits warns potential infringers that they had best steer clear of others' rights of exclusivity under patents and, instead, spend their time in more profitable, lawful ways. In this way, an accounting of profits reinforces the bargain under the *Patent Act*. If infringers invade a patentee's

statutory monopoly with insufficient consequence, the *Patent Act*'s bargain crumbles, inventive spirit sputters, and a source of public wealth depletes.

[21] This is not unlike the role of an accounting of profits in preserving other important dynamics and relationships recognized by law. For example, an accounting of profits plays a key role in protecting and vindicating the relationship between fiduciaries and their beneficiaries and removing any incentives to dishonour the relationship. See, *e.g.*, *Strother v. 3464920 Canada Inc.*, 2007 SCC 24, [2007] 2 S.C.R. 177 at para. 75; *Hodgkinson v. Simms*, [1994] 3 S.C.R. 377, 117 D.L.R. (4th) 161 at 453-454; I.M. Jackman, "Restitution for Wrongs" (1989) 48:2 Cambridge L.J. 302 at 304; James Edelman, *Gain-Based Damages: Contract, Tort, Equity and Intellectual Property* (Portland, OR: Hart Publishing, 2002) at 83-86.

[22] In the area of fiduciary duty, compensatory damages can fall short of vindicating the fiduciary relationship in the same way that they can fall short in the patent infringement context: James Edelman, "The Measure of Restitution and the Future of Restitutionary Damages" (2010) 18 R.L.R. 1 at 11 ("disgorgement damages…are needed…where other remedies do not provide sufficient deterrence"). For example, if persons in a fiduciary position invest $100 of trust money for their personal use and earn a profit of $1000, compensatory damages would only require them to surrender $100, allowing them to retain $900. A purely compensatory approach would incentivize faithless fiduciary behaviour and undermine a relationship the law considers worthy of protection.

[23] In the patent infringement context, suppose a multinational infringer is extremely efficient: it can produce infringing wares at much higher volumes than the patentee at similar cost. If a court is restricted to awarding only compensatory damages, the patentee's lost sales will be a drop in the infringer's bucket of profits. The remedial restriction would be a boon for efficient infringers. Stripping infringers of their wrongful gains through an accounting of profits is often the only way to vindicate the patentee's rights to exclusivity over the invention.

[24] An accounting of profits ensures that faithless fiduciaries and patent infringers alike will not "profit from [their] wrong": *Hall v. Hebert*, [1993] 2 S.C.R. 159, 101 D.L.R. (4th) 129 at 174; *Strother,* above at para. 77 (the remedy "teaches faithless fiduciaries that conflicts of interest do not pay"); Andrew Burrows, *The Law of Restitution*, 3rd ed. (New York: Oxford University Press, 2011) at 621-623; Jackman, above at 304. This principle is a longstanding and powerful one that animates remedial responses in many areas of law: see, *e.g.*, *Lundy v. Lundy* (1895), 24 S.C.R. 650; *Jamieson v. Jamieson* (1921), 63 S.C.R. 188; *Brissette Estate v. Westbury Life Insurance Co.*, [1992] 3 S.C.R. 87, 96 D.L.R. (4th) 609; *Hall v. Hebert*, above; *Scott v. Wawanesa Mutual Insurance Co.*, [1989] 1 S.C.R. 1445, 59 D.L.R. (4th) 660. In the area of patents, stripping infringers of their wrongful gains restores confidence in the *Patent Act* scheme and ensures equitable treatment not only for inventors but also for market competitors who continue to play by the rules. As Professor Burrows (now Burrows L.J. of the U.K. Supreme Court) puts it, above at 662, "[w]hy should a wrongdoing defendant end up better off, for example, than a competitor who has taken care not to infringe another's legal rights?"

[25] I.M. Jackman, a leading Commonwealth scholar on the topic of restitution, explains how restitutionary remedies, like an accounting of profits, can guard the integrity of “facilitative legal institutions”:

> Just as the law protects people directly from harm, so must the law protect the integrity of … facilitative legal institutions, and the structure of civil remedies thus reflects the need to guard against not only personal harm, but also institutional harm. Institutional harm may not be a form of immediate “harm to others,” but will be in a mediate way, by depriving a community of the integrity (and thus the utility) of its facilitative institutions. Further, these two kinds of protection from harm operate independently, so that even if no one personally and immediately has suffered harm, a remedy might still be attracted to protect a particular facilitative institution.

(Jackman, above at 304, emphasis added, footnotes omitted.)

[26] In *Hodgkinson*, above at 453, the Supreme Court echoes these comments in the fiduciary context: “…the law is able to monitor a given relationship society views as socially useful while avoiding the necessity of formal regulation that may tend to hamper its social utility.”

[27] An accounting of profits is directed to the disgorgement of benefits obtained by infringers as a result of the infringement, no more, no less: *e.g.*, *Monsanto Canada Inc. v. Schmeiser*, 2004 SCC 34, [2004] 1 S.C.R. 902 at para. 101; *Apotex Inc. v. ADIR*, 2017 FCA 23, 406 D.L.R. (4th) 572 at paras. 26, 28 (*ADIR FCA*); *Rivett v. Monsanto Canada Inc.*, 2010 FCA 207, 408 N.R. 143 (*Rivett FCA*); *Dart Industries Inc. v. Décor Corporation Pty Ltd.* (1993), 179 C.L.R. 101, (1993) 116 A.L.R. 385 at 111 (Aust. H.C.); Norman Siebrasse, “A Remedial Benefit-Based Approach to the Innocent-User Problem in the Patenting of Higher Life Forms” (2004), 20 C.I.P.R. 79 at 83 (Siebrasse 2004).

[28] Awarding less—leaving infringers to enjoy some of the benefits from their infringement of patents—does not fully remove the incentive to infringe. It incentivizes infringement, thereby undercutting the bargain. Awarding more—stripping infringers of the benefits obtained from their infringement and taking even more away—removes the incentive to infringe. The bargain is affirmed. But by taking even more away, it punishes the infringer.

[29] An accounting of profits is not to be punitive: *Schmeiser*, above at para. 101; *Lubrizol Corp. v. Imperial Oil Ltd.* (1996), [1997] 2 F.C. 3, 71 C.P.R. (3d) 26 (C.A.) at para. 15. Instead, that is the objective of punitive damages. Punitive damages are additional awards tacked on top of another remedial response (whether compensatory or restitutionary) and a separate body of law defines and regulates their availability and quantum: *e.g.*, *Whiten v. Pilot Insurance Co.*, 2002 SCC 18, [2002] 1 S.C.R. 595 at para. 36, cited in *Atlantic Lottery Corp. Inc. v. Babstock*, 2020 SCC 19 at paras. 63-66.

[30] Here, a warning must be sounded. In some cases, an accounting of profits, calculated in accordance with proper principle, can result in an enormous quantum of recovery, a sum with many digits. Some judges get spooked by this. They turn their backs on the doctrine, draw upon their own vague sense of what seems to be fair, and find some formula of words to reduce the amount awarded. This is wrong. Their response is not a judicial one, a reasoned application of settled doctrine to the evidence. Rather, their response springs from idiosyncratic feelings and impressions, something that varies from judge to judge. Were this the accepted way of performing an accounting of profits, outcomes would depend on the random chance of the particular person chosen to decide the case—essentially justice turning on the spin of a roulette

wheel. Alas, some counsel—not the skilled and professional ones here—encourage these sorts of non-judicial responses by lambasting claims as "enormous", "unfair" and "unjust" without referring to the settled doctrine.

[31] These sorts of non-judicial approaches should be seen for what they are. If a defendant wrongly takes a plaintiff's patented machine and earns millions from the machine that it had no right to use and the remedy is an accounting of profits, every last penny caused by the wrongdoing must be stripped from the defendant, no matter how high that may be. Otherwise, the defendant is rewarded for its wrongdoing and others looking on might be encouraged to do the same.

[32] Thus, properly seen, the instruction to avoid punitive outcomes when awarding an accounting of profits is no reason to arbitrarily reduce or cap the amount to be disgorged from the infringer. It is just a prudent reminder to apply causation principles properly and rigorously, to ensure that the gain earned by the infringer as a result of the infringement is reversed, no more, no less.

[33] To reiterate, under an accounting of profits, the patentee is entitled to the benefits obtained by infringers as a result of the infringement of the patent, properly construed and understood, no more, no less. The key words are "as a result" and "infringement of the patent, properly construed and understood". The former stresses the need for the court to analyze causation, for only those amounts causally linked to the infringement are captured by the accounting of profits; anything extra is punitive. The latter reminds us that the focus is on the

protection afforded by the patent; anything extra effectively extends, improperly, the scope of protection afforded by the patent.

[34] Thus, an accounting of profits must walk a fine line between deterring infringement, *i.e.*, extracting any economic incentive to infringe, without punishing, *i.e.*, extracting sums not causally connected to the infringement. And it must focus on defending and vindicating—not expanding—the patentee's lawful monopoly under the patent.

[35] To illustrate this, consider a luxury car manufacturer that uses a screw in its windshield wipers. The screw infringes a patent. The patentee's monopoly covers that screw, not luxury cars. If the infringer would be forced to disgorge all of its profits from the luxury cars, in practical terms the remedy would place the patentee in the position of enjoying a monopoly that it simply does not possess. The patentee did not invent luxury cars, it only invented a screw. An accounting of profits defends and, thus, is constrained by a patent's borders, nothing more.

[36] The jurisprudence has developed two rules for courts to help them implement these principles: (1) only actual profits, meaning actual revenues minus actual costs, are disgorged; (2) only profits that have resulted from the patent infringement are disgorged.

### (2) Specific principles

#### (a) Only actual profits are disgorged

[37] In an accounting of profits, courts must work in the real world, not the hypothetical. Courts care only about *actual* revenues and *actual* costs. What “could have”, “should have”, or “would have” happened is of no moment. The only thing that matters is what *did* happen. Because the aim of the remedy is to strip the gains that *did* happen from the infringer as a result of the *actual* infringement of the patent, properly construed and understood.

[38] Thus, it is a key principle in this area of law that patentees must take their infringers as they find them: *Lubrizol*, above at para. 15; *Reading & Bates Construction Co. v. Baker Energy Resources Corp.* (1994), [1995] 1 F.C. 483, 58 C.P.R. (3d) 359 at 368 (C.A.); Norman Siebrasse *et al.*, “Accounting of Profits in Intellectual Property Cases in Canada” (2007) 24 C.I.P.R. 83 at 87 (Siebrasse, 2007); S.J. Perry and T.A. Currier, *Canadian Patent Law*, 3rd ed. (Markham, Ont: LexisNexis Canada, 2014) at 472, §17.46; *Dart Industries*, above at 111; *Celanese International Corp. v. BP Chemicals Ltd.*, [1999] R.P.C. 203, [1998] All E.R. (D.) 594, at 220 (C.H. Eng). In its reasons, the Federal Court correctly identified this principle and was guided by it: reasons at paras. 138-140.

[39] This principle advances the purposes of the remedy. Disgorging anything less than an infringer’s actual profits would offer an economic incentive to infringe. It allows the infringer to retain some of its ill-gotten gains and chip away at the patentee’s monopoly. But disgorging

more than what was actually earned is not necessary to protect that monopoly and is, therefore, punitive.

[40] In order to do this properly in an accounting of profits, courts must avoid the hypothetical, “but for” world. Questions of what the parties could, would, or should have done are irrelevant to the analysis.

[41] For example, infringers cannot deduct opportunity costs (*i.e.*, what they *would have* done but for the infringement). Opportunity costs are hypothetical costs occurring in the “but for” world. Allowing any hypothetical revenues or costs to be deducted undercuts the patent bargain. When hypothetical revenues and costs are used it distorts the picture of what the infringer *actually* earned making it impossible to extract the actual value derived from the infringement.

[42] In its oral submissions, the respondent Dow offered a simple, apt example to illustrate this point: if bank robbers steal $50 and are liable to return it, they cannot seek to deduct $20 because they would have earned $20 in the workplace had they never robbed the bank. To allow the $20 deduction is to incentivize bank robbery: in the best case scenario, where their robbery is not detected, the bank robbers would keep all of their ill-gotten gains and, in the worst case scenario, the bank robbers would keep what they would have earned had they not robbed the bank. Given this, why wouldn’t the bank robbers decide to rob a bank every time? Likewise, why wouldn’t infringers decide to infringe every time? Under this approach, they are in effect given a free lottery ticket—there is only upside, no downside.

[43] Dow's example can be extended further. Suppose the bank robbers were earning much more than minimum wage such that the robbers' opportunity costs were $100. If the robbers could deduct the opportunity costs ($50 minus $100), they would have no profits to disgorge. This would allow the robbers to rob the bank free from any consequence. If *actual* profits are not disgorged, the robbers have an open license to rob the bank. Similarly, in the patent context, infringers with large opportunity costs—those who are powerful and well off who could make substantial lawful profits elsewhere—could infringe patents free from any consequence.

[44] Thus, allowing infringers to deduct opportunity costs violates the rule that only *actual* costs can be deducted. If hypothetical costs are deducted, it provides economic incentive for infringers to "rob the bank" and undermine the patent bargain.

[45] To be clear, "but for", hypothetical reasoning applies when courts award compensatory damages for patent infringement: see, *e.g.*, *Apotex FCA (2015)* at paras. 43-45; *Pfizer Canada Inc. v. Teva Canada Ltd.*, 2016 FCA 161, 483 N.R. 275 at para. 50. There is no doubt that, in that context, "[b]oth 'would have' and 'could have' are key" to determine the proper amount of compensation: see, *e.g.*, *Pfizer* at para. 50. But this is not the case in an accounting of profits. An accounting of profits is indifferent to the plaintiff's compensation. What "would have" and "could have" happened does not matter—all that matters is what is actually in the infringer's pockets as a result of the infringement of the patent, properly construed and understood.

### (b) Only profits that have resulted from the patent infringement are disgorged

[46] There must be a causal connection between the profits to be disgorged and the patent infringement. A "common sense view of causation" is to be applied: *Schmeiser*, above at para. 101. For example, a pharmaceutical company does not disgorge its profits from all of its products just because one of its products is infringing.

[47] Even within a particular product, there may be infringing elements and non-infringing elements. If a patented brake is sold inside a car, the patentee is not entitled to all of the profits generated from the sale of the car: *Dart Industries* at 120. Likewise, if a drug contains two active ingredients, one of which is patented and the other unpatented, then the patentee may not be entitled to all of the profits from the drug: *Wellcome Foundation Ltd. v. Apotex Inc*. (1998), 82 C.P.R. (3d) 466, 151 F.T.R. 250 (F.C.). The court parses through the profits and orders only those profits caused by the infringement to be disgorged, allowing the infringer to retain the rest. This is because some of the profits are generated from a non-infringing source (*i.e.*, the car or the unpatented ingredient).

[48] The case law in this area uses the term "apportionment of profits" to describe this process of dividing profits caused by the infringement from other profits: *e.g.*, *ADIR v. Apotex Inc.*, 2015 FC 721, 482 F.T.R. 276 at para. 119 (*ADIR FC*) rev'd but not on this principle, *ADIR FCA*, above. This is unfortunate, as the term can be misleading. It invites some to think that the court's task is to divide the profits into recoverable and irrecoverable amounts on the basis of fairness. Not at all. "Apportionment" is just another way of describing the process by which the court

identifies and separates the profits made as a result of the infringement from those that are not. As the Supreme Court put it in *Schmeiser* at para. 101, "the inventor is only entitled to that portion of the infringer's profit which is causally attributable to the invention" (emphasis added). Assessing what profit has resulted from the infringement remains the core of the court's task.

[49] To disgorge the profits generated from an entire car because of an infringing brake or screw is not only punitive but it also overinflates the value of the patent. As explained above, the patentee has a patent over the value generated from the patented brake or the screw, not the car as a whole. Otherwise, the *Patent Act* would be protecting a right that the patentee simply does not have. The remedy of an accounting of profits only defends the patent's borders; it does not expand them.

[50] In apportioning profits, the Court must look for a link between the patent and the profits. It can do this by identifying the value (*i.e.*, profit) generated because of the patent. In other words, the court can ask what profits are attributable to the patented brake in the car. What profits are attributable to the patented ingredient in the medicine?

[51] Professor Norman Siebrasse, a leading, incisive member of Canada's intellectual property academy, calls this the "differential profits approach" or "value-based apportionment":

> […] awarding profits according to the value added by the patented invention and opposed to the proportionate cost or physical size, is consonant with fundamental nature of patents as *intellectual* property. What is valuable is the intellectual contribution that is embodied in an invention, not the physical contribution. It may be that even though the patented aspect is only a small part of the wares that

> are sold, either by physical proportion or by cost, the entire value of the ware is due to the patent.

(Siebrasse 2004 at 92.)

[52] In *ADIR FCA* at paragraph 73, this Court cited a passage in *Beloit Canada v. Valmet Oy* (1994), 55 C.P.R. (3d) 433, 78 F.T.R. 86 at 457 C.P.R. (F.C.), rev'd, 184 N.R. 149 (but affirmed on this point), approvingly as an illustration of this value-based approach. The passage is as follows:

> There is no question however, that the individual circumstances of a particular case may render an apportionment of profits the only equitable solution. The test in determining if there should be an apportionment is based on the saleability, as a whole, of the product which contains the patented invention. The question for the court is whether the market demand for the defendant's product arose because of the infringed patent or whether it arose by virtue of the product's additional features. In other words, the inquiry is directed to "the value of the patented part to the machine as a whole", to use the words of Lord Shaw in Watson Laidlaw.
>
> This determination is a factual one to be made on the basis of all the evidence. The answer depends entirely on the particular circumstances of each case. The onus is on the defendant to adduce sufficient evidence to satisfy the court that consumer demand for its product arose by virtue of features other than the plaintiffs' infringed patent. If the defendant's evidence in this regard is inadequate, the court will not make an apportionment.

[53] For a court to apportion profits, the defendant must prove that some of its profits are attributable not to the patent but some other non-infringing aspect of the infringing wares: *ADIR FCA* at para. 72; D. MacOdrum, *Fox on the Canadian Law of Patents*, 5th ed (looseleaf) (Toronto: Thomson Reuters, 2019) (looseleaf update 2018-3) at §14:5(f).

[54] There are numerous examples of value-based apportionment in the accounting of profits jurisprudence:

- In *Wellcome*, above, where a drug featured one patented ingredient and one unpatented ingredient, the Federal Court declined to apportion on the basis of the relative weight of the two ingredients or the cost to make them. Instead, the Federal Court apportioned on the basis of the value generated by the patented ingredient: see paras. 54-58.

- In *Teledyne Industries Inc. v. Lido Industrial Products Ltd.* (1982), 68 C.P.R. (2d) 204 (F.C.), the Federal Court declined to apportion the profits because "there [was] no evidence whatsoever establishing that the improvements made did, in fact, increase in any way the marketability of the shower heads or have any effect on their sales. Without a clearly proven effect on the market, there can obviously be no apportionment": at 214.

- In *Lubrizol*, above, the patent covered motor oil with a certain additive in it. This Court apportioned the profits because "it [was] possible that [the motor oils] have achieved their market share and attendant profits for reasons other than the presence of [the patentee's] patented additive": para. 10. Indeed, "the reality" was that the patentee "did not invent motor oil": *ibid*.

- In *Dart Industries*, the High Court of Australia declined to apportion profits because the infringing press button lid on an otherwise non-infringing canister was the "essential feature […] without which this particular container would never have been produced at all": at 120.

- In *Manufacturing Co. v. Cowing*, 105 U.S. 253 (1881), the patentee added a new device to an existing pump but the United States Supreme Court declined to apportion profits and awarded the full amount of profit from the pump because the "old pump was useless without the improvement": at 256. None of the infringing sales would have been possible without the improvement: *ibid*.

[55] Value-based apportionment is accepted and applied outside of the patent infringement context and guidance can be obtained from cases in those areas: see, *e.g.*, *My Kinda Town Ltd. v. Soll* (1981), [1983] R.P.C. 15, [1981] Com. L.R. 194 at 56.

[56] Apportionment is most easily understood when the patent is a component of a larger whole (*i.e.* when the infringing brake is sold inside the car). It is easy to grasp why the patentee is not entitled to profits from an entire car because it uses an infringing brake. But binding jurisprudence from this Court and the Supreme Court of Canada tells us that apportionment may be necessary even when the infringing product is the whole of the patent: *Schmeiser*; *ADIR FCA*, both above. In both of these cases, this Court and the Supreme Court applied value-based apportionment even though the infringing products were the patent itself.

[57] As instructed by the Supreme Court, this is accomplished by comparing "the defendant's profit attributable to the invention and his profit had the defendant used the best non-infringing alternative": *Schmeiser,* above at para. 102; *Collette v. Lasnier* (1886), 13 S.C.R. 563 at 576. Indeed, this is the "preferred means of calculating an accounting of profits": *Schmeiser* at para. 102.

[58] Both *Schmeiser,* above and *ADIR FCA,* above are good illustrations of how to apply value-based apportionment when the product used or sold is the whole of the patent.

[59] In *Schmeiser*, the infringing farmers used the patentee's herbicide-resistant canola seeds on their land. There were no non-infringing subcomponents: the patent was the whole seed. But the infringers never sprayed herbicide over their crops. The Supreme Court awarded no profit because the infringers' "profits were precisely what they would have been had they planted and harvested ordinary canola" and, therefore, the infringers "obtained no premium" nor "gain[ed] any agricultural advantage" from the patented seeds: para. 104. When compared to the non-infringing alternative, the farmer generated no profits "<u>as a result of the invention</u>": para. 103, emphasis in original.

[60] In *ADIR FCA,* above, the infringer manufactured the patentee's drug in Canada and then sold it both in Canada and internationally. The infringer conceded that its Canadian sales should be disgorged but asserted, and this Court agreed, that it did not need to disgorge its international sales because the patented drugs could have been manufactured outside of Canada without infringing. The infringer gained no benefit (*i.e.*, profit) from the patent when manufacturing in

Canada because the drug could have been manufactured and sold outside of Canada without infringing.

[61] Value-based apportionment "isolates and identifies the profit that was generated because of the patented invention": *Monsanto Canada Inc. v. Rivett*, 2009 FC 317, [2010] 2 F.C.R. 93 at para. 53 (*Rivett FC*). In *Schmeiser*, above the infringing farmers profited from the seeds but none of those profits were attributable to the seeds' inventive value (*i.e.*, herbicide resistance). In *ADIR FCA*, the profits earned outside of Canada were not causally attributable to the value of the patent because the patentee did not have the benefit of a monopoly in those other jurisdictions.

[62] These cases illustrate how value-based apportionment must focus on the value added by the invention itself. This advances the purposes of the remedy. It ensures that the *Patent Act* only protects the rights actually conferred to the patentee by the *Patent Act*. Failing to apply value-based apportionment in *Schmeiser* would give the patentee a monopoly over canola seeds generally and, in *ADIR FCA*, "would give an extraterritorial reach" to the patent that only had a monopoly in Canada: para. 33.

[63] Even putting aside the binding jurisprudence, apportioning profits even when the patent is the whole of the infringing product makes sense on a principled level: if the purpose of an account is for the infringer to disgorge the *value* derived from the patent, the fact that a patent is physically part of a larger whole or not should not determine whether apportionment is available. Apportionment is simply how a court ascertains which profits are *causally attributable* to the

patentee's monopoly and which profits were generated by some other unpatented, non-infringing element.

[64] What is the *value* of a patented pain reliever that provides eight hours and one minute of pain relief when there is a non-infringing alternative that provides eight hours of relief? The patentee did not invent pain relievers; the patentee only invented a drug that added an extra minute of relief: *Lubrizol,* above at para. 10 ("…the reality is that Lubrizol did not invent motor oil"). Why should the defendant disgorge all of its profits if only a small fraction of its profits are attributable to the value of the invention? When comparing the patent to a non-infringing alternative, we can "isolate[] and identif[y]" the value of the patent: *Rivett FC,* above at para. 53. This "results in a true reflection of the profits made from the invention": *ibid* at para. 56.

[65] The use of non-infringing alternatives in the accounting of profits context does not engage in impermissible hypothetical, "but for" reasoning. It is simply a means of isolating the value of the patent. While it is tempting to drift into the world of hypotheticals when using non-infringing alternatives, this temptation must be resisted.

[66] Indeed, the seminal Siebrasse (2004) article, above, advocating for value-based apportionment, cited at paragraph 51, above, briefly succumbs to this temptation. In that article, Professor Siebrasse justifies non-infringing alternatives as a "specialized statement" of the "but for" principle of causation (at 91, emphasis added):

> The argument in favour of the differential-profits approach is that it is simply the application of "but for" causation to an accounting of profits.

> …
>
> It says that the defendant's profit caused by the infringement is the difference between the profit that the defendant in fact made and the profit that the defendant would have made but for the infringement, on the supposition that but for the infringement the defendant would have used the next best non-infringing alternative.

[67] This logic violates the foundational principle that one must take the infringer as one finds them. What the defendant "would have used" is not relevant to the analysis. As explained above at paragraphs 37-45, an accounting of profits takes into account only actual revenue, actual costs and actual profits. The use of hypotheticals and the "but for" test is often used to calculate compensatory damages but has no place in an accounting of profits.

[68] Professor Siebrasse defends the proposition that but for the infringement an infringer would have used the next best non-infringing alternative as:

> …a reasonable one, since it says no more than that, but for the infringement, the defendant would have acted in a prudent and informed manner in pursuing its interest in making as much money as possible. Indeed it is difficult to see what other supposition might be used…

(Siebrasse 2004 at 91-92, emphasis added)

[69] On the contrary, it is quite easy to posit another supposition. For example, if an infringer could prove in evidence that, but for the infringement, it would have used its capital to invest in, say, Apple or Amazon before their market ascendance then the infringer could retain the vast majority, if not all, of its profits. But for the infringement, the infringer would have earned much

more investing in Apple or Amazon than selling the infringing goods. By Professor Siebrasse's "but for" logic, the infringer would not have to disgorge anything because using the infringing product was actually detrimental to the infringer's overall profitability.

[70] The reality is that infringers may not always pursue the next best non-infringing alternative. It may be the case that without access to the patented product, the infringer might have pursued an entirely different course, for example, speculative investments in emerging tech companies, and would have lost everything.

[71] Professor Siebrasse's logic permits the deduction of opportunity costs when it comes in the form of "next best infringing alternative". But it would be unprincipled to allow the infringer to deduct its opportunity costs where that opportunity cost is in the form of a "true" non-infringing alternative but prevent the infringer from deducting if the opportunity cost is of a different nature (*i.e.*, investing in Apple or Amazon). If value-based apportionment is rooted in "but for" principles, it should not matter whether the foregone alternative was a "true" non-infringing alternative or a simple opportunity cost.

[72] So if non-infringing alternatives cannot be rooted in "but for" reasoning, on what principled basis are they allowed to flourish in the accounting-of-profits ecosystem?

[73] Non-infringing alternatives are used not to determine what the infringer could have done instead of infringing (*i.e.*, "but for" reasoning), but instead to establish a non-infringing baseline to isolate the value of the patent. As the Federal Court explains in *Rivett FC*, above (para. 56):

> …the next best non-infringing alternative that is to be considered when using the differential profits approach cannot be what one would have done had one complied with the law, i.e. obtained a licence to use the patent. […] The comparison is to the profit that would have been earned from using the next best product that is not the patented product itself, with the latter acting as a baseline from which to calculate added value. That results in a true reflection of the profits made from the invention—the necessary causal link.

[74] If one compares the profits earned on an infringing product (*i.e.*, eight hour and one minute pain reliever) with a non-infringing product (*i.e.*, the eight hour pain reliever), one can isolate the value of the patent (*i.e.*, profits attributable to the extra minute of pain relief). This establishes a causal connection between the profits and the patent with greater exactitude. The infringer will disgorge the profits attributable to the extra minute of pain relief, no more, no less.

[75] "Non-infringing alternative" can be a deceiving term in the accounting of profits context. The word "alternative" invites "but for", hypothetical reasoning. Investing in Apple or Amazon or obtaining a license to use the patent are, on the plain meaning of the words, "non-infringing alternatives". But when courts use the term "non-infringing alternative", they are really referring to a non-infringing course of action that can effectively isolate the value of the patent. They really mean the non-infringing baseline—not an alternative.

[76] In the compensatory damages context, the term "non-infringing alternative" is entirely appropriate. In that context, the infringer must prove that it "would have" and "could have" used the non-infringing alternative: see, *e.g.*, *Apotex FCA (2015),* above at paras. 43-45; *Pfizer*, above at para. 50. But the language of "would have" and "could have" does not extend to the accounting of profits context.

[77] The Federal Court's decision in *Rivett FC*, affirmed by this Court, best illustrates why "baseline", not "alternative", is more appropriate terminology in the accounting of profits context. In *Rivett FC*, the Federal Court used a non-infringing alternative even though the "alternative"—in that case, regular, unpatented canola seed—was not locally available to the infringer during the infringement period. Using "but for" logic, the Federal Court could not consider the non-infringing alternative because the infringer had no access to the non-infringing seeds: but for the infringement, the infringer would still have used the patentee's seed.

[78] But the Federal Court resisted the "but for" reasoning and used the regular soybean seed as an alternative even though the infringer could not have used it. If non-infringing alternatives must be true "alternatives", "the fact that the [product] has a value apart from the invention will be ignored": *Rivett FC* at para. 62. The patent is not valuable because it just so happens to be unavailable in a particular locale. It is valuable because it has some inventive quality that increases the infringing product's profitability or marketability. For the Federal Court in *Rivett*, the point of using non-infringing alternatives was to isolate the value of the patent. It was irrelevant whether the infringer *could have*—in a hypothetical universe—avoided the infringement because it had an alternative course of action. This point was affirmed on appeal: *Rivett FCA* at paras. 50-57.

[79] Thus, for the foregoing reasons, in the accounting of profits context, the use of the term "non-infringing baseline" is preferable to "non-infringing alternative". Using the term "non-infringing baseline" steers courts and litigants away from impermissible "but for" reasoning. Perhaps *ADIR FCA*'s words in *obiter* looking at a "but for" situation involving non-infringing

alternatives can be understood in this way and, as a result, can be seen as consistent with the reasoning in *Rivett FCA* and this opinion.

[80] To summarize, the key task of the Court in determining an accounting of profit is causation—the actual benefit received by the infringer that was caused by the infringement of the patent. "Apportionment" is nothing more than part of the assessment of causation: the exercise of ensuring that benefit not caused by the infringement of the patent is factored out. This assessment is based on the particular facts of a case and it may be informed by expert evidence. In most cases, causation is a factually suffused question of mixed fact and law. Thus, the standard of review is palpable and overriding error: *Housen v. Nikolaisen*, 2002 SCC 33, [2002] 2 S.C.R. 235.

[81] Palpable and overriding error is a difficult standard for appellants to meet. This Court has said that it requires appellants to go beyond pulling at leaves and branches and pull the whole tree down: *Canada v. South Yukon Forest Corporation*, 2012 FCA 165, 431 N.R. 286 at para. 46, cited with approval by the Supreme Court in *Benhaim v. St. Germain*, 2016 SCC 48, [2016] 2 S.C.R. 352 at para. 38.

[82] Many appellants misunderstand the requirement of palpable and overriding error. They urge appellate courts to reweigh the evidence. Many parse the first-instance court's reasons, pointing out gaps and non-mentions of evidence, and call these instances of palpable and overriding error. Others read the first-instance court's reasons in the abstract, divorced from the record before the court, and find things that could have been said better, and then declare that

there is palpable and overriding error. Others try to dress up a drafting deficiency in the reasons as an error of law or principle. Without more, none of these things constitute palpable and overriding error. See generally *Mahjoub v. Canada (Citizenship and Immigration)*, 2017 FCA 157, [2018] 2 F.C.R. 344.

## B. Analysis

[83] To reiterate, the Federal Court found NOVA liable for infringing Dow's patent over metallocene linear low-density polyethylene by manufacturing its product, SURPASS and selling it in competition to Dow's product, ELITE. Four issues arise in the appeal and cross-appeal:

(1) Did the Federal Court err in rejecting NOVA's apportionment claim?

(2) Did the Federal Court err in awarding Dow "springboard profits"?

(3) Did the Federal Court err in selecting the "full cost" method for deducting costs?

(4) Did the Federal Court err in converting the currency at the date of judgment?

**(1) Did the Federal Court err in rejecting NOVA's apportionment claim?**

[84] At the outset, Dow objects to NOVA's raising of this issue in the manner in which it did. Dow says that NOVA cast its apportionment arguments differently in the Federal Court and that it is asking this Court to deal with new legal arguments without the Federal Court's views on them.

[85] This Court does have a discretion not to consider new issues on appeal. Where the late raising of new issues on appeal causes prejudice because the parties would have adduced evidence at first instance on those issues, the Court generally should refuse to consider the new issues. See, *e.g.*, *Quan v. Cusson*, 2009 SCC 62, [2009] 3 S.C.R. 712; *Performance Industries Ltd. v. Sylvan Lake Golf & Tennis Club Ltd.*, 2002 SCC 19, [2002] 1 S.C.R. 678 at para. 33.

[86] However, NOVA is not raising any new legal issues. Broadly speaking, the legal issue it raises is the calculation of the accounting of profits, an issue considered and decided by the Federal Court. In this Court, NOVA simply offers different legal arguments on that same issue.

[87] This is not a problem. The law is always at large. A party can always raise new law and new legal arguments in this Court concerning issues that were before the first-instance court provided that the opposing party has had fair notice of them and has had an opportunity to respond to them.

[88] In any event, regardless of how this issue was framed in the Federal Court, NOVA's apportionment arguments must fail in this Court.

[89] NOVA's apportionment arguments are two-fold.

[90] NOVA's first apportionment argument concerns its manufacture of ethylene, a major component of metallocene linear low-density polyethylene and its SURPASS product that infringed Dow's patent. NOVA says that had it not infringed Dow's patent, it would have produced ethylene anyway and would have made lawful profits from that. It says that it should be credited for these hypothetical profits in the accounting of profits—or, in other words, there should be apportionment of the profits—because it "would have earned…ethylene profits even without infringing": NOVA's revised memorandum of fact and law at paras. 24, 55, 56.

[91] This argument must be rejected. In this regard, I disagree with my colleague who accepts the argument.

[92] First, at a factual level, the argument fails. In the Federal Court, NOVA did not demonstrate that it would have been able to sell ethylene to third parties if it did not use it to make infringing SURPASS polyethylene. There was no evidence before the Federal Court of any market demand or market price for NOVA's ethylene, as opposed to the prices NOVA sold ethylene to certain third parties under long-term supply contracts with different and variable pricing: see paragraphs 36-37 of Dow's memorandum of fact and law. Also the Federal Court had confidential evidence before it that stood in the way of any argument that NOVA could have

made and sold ethylene to third parties. We must presume that the Federal Court reviewed and considered all of the evidence before it, absent proof that it forgot, ignored or misapprehended the evidence: *Housen* at para. 46; *Mahjoub* at paras. 66-67.

[93] In short, the Federal Court declined to make the finding that NOVA would have been able to sell ethylene to third parties if it did not use it to make infringing SURPASS polyethylene. It did not make that finding because, for one thing, there was nothing in the record to allow it to do so. Thus, we cannot make that finding.

[94] Further, in law, NOVA's argument fails. NOVA says that it would have earned ethylene profits from ethylene sales without infringing Dow's patent. But this is purely hypothetical and, thus, is legally irrelevant to the accounting of profit. What a party could have done or would have done in a hypothetical non-infringement scenario is no part of the accounting-of-profits exercise. As explained in paragraphs 37-45 and 65-79, above, only actual revenues, costs and profits are relevant.

[95] The Federal Court looked at this very issue and specifically rejected it. It held that "[a]n accounting of profits should be based on actual revenues and costs" and added that a "market price" for ethylene was "a theoretical cost [NOVA] did not incur" (at para. 139). These findings are correct in law and, for good measure, are supported by the evidence.

[96] As explained in paragraphs 37-45, above, stripping all of the ill-gotten gains made from the infringement of the patent restores the patentee's monopoly and, generally, the integrity of

the patent bargain. Allowing NOVA to deduct its hypothetical ethylene sales from the accounting of profits would incentivize NOVA and others like it to infringe, thereby undermining the patent bargain under the *Patent Act*. In that scenario, NOVA and others like it would know that there is no downside to infringing the patent because, at a minimum, it will do no worse than earning the hypothetical profits it would have made had it acted legally. In fact, depending on the market situation, it may even end up making more than those hypothetical profits.

[97] Is there a comparative baseline that might help in the accounting of profit in this case? (See discussion at paragraphs 72-79, above.) No. NOVA conceded that it had no non-infringing alternative to the manufacture of Dow's product: Federal Court reasons at para. 146. Thus, a comparative baseline is not available. Without this, it must be presumed that all of NOVA's profits were caused by its exploitation of the patented product.

[98] NOVA also runs its apportionment argument a slightly different way. NOVA says that a portion of its profits are attributable to its unique ability to produce ethylene at a significant discount, what it calls its "Alberta Advantage". NOVA says that this portion of the profits is not causally attributable to the patent but is instead attributable to NOVA's "Alberta Advantage". Thus, according to NOVA, some of its profits are due to its own efficiencies and should be apportioned out of the amount to be awarded to Dow.

[99] This argument must be rejected.

[100] Dow has the exclusive right to produce the polyethylene covered by its patent. The fact that NOVA produces its own ethylene in a way that allows it to make higher profits is irrelevant. Under the principles governing an accounting of profits, the profits as a result of the wrongful manufacture and sale of the infringing product must be stripped from NOVA.

[101] The Federal Court specifically rejected NOVA's argument. In addressing it, the Federal Court correctly held that "[a]n accounting of profits should be based on actual revenues and costs". It found that the "market price" for ethylene that NOVA was using in its calculation, rather than its actual cost of ethylene, was "a theoretical cost [NOVA] did not incur" (at para. 139). Again, an accounting of profits looks to actualities, not hypotheticals.

[102] An accounting of profits looks at the actual infringer, what the infringer actually did and the actual profits made from the infringement. It does not look at hypotheticals. It does not ask what another hypothetical, less efficient infringer might have made. See paragraphs 37-45 and 65-79, above.

[103] In isolation, NOVA's production of the raw material, ethylene, for its SURPASS product is "non-infringing". But one cannot view each step of an infringer's activities in isolation. When viewed at a micro level, almost anything an infringer does can be classified as non-infringing. Training employees, building a new assembly line, and expanding a marketing budget are all, in isolation, "non-infringing" activities that contribute to ultimate profitability. In theory, the act of infringement can be sliced endlessly into tiny "non-infringing" actions. But it is artificial and, thus, wrong in principle to do that.

[104] In this case, the findings of the Federal Court regarding how the infringing SURPASS product was made preclude any attempt to regard NOVA’s manufacture of ethylene as a separate matter or feature. As the Federal Court found, all of NOVA’s actions, including its manufacture of the ethylene that was wholly integrated and merged into the infringing SURPASS polyethylene product, were part and parcel of the manufacture and sale of the infringing product. Unlike *Beloit*, above at 457 C.P.R., the ethylene is not an “additional feature” of SURPASS to which consumer demand can be attributed and apportioned.

[105] The Federal Court’s decision on this issue is wholly consistent with the test set out in *Beloit* at 457, reproduced at paragraph 52 above, that has been adopted by this Court in *ADIR (FCA)*. The infringing SURPASS product was, in the words of *Beloit*, “saleab[le], as a whole” and “[m]arket demand” for SURPASS “arose because of the infringed patent” and not any “additional features” such as the efficiently produced ethylene in this case. As *Beloit* says, the “inquiry is directed to ‘the value of the patented part’ to the [product] as a whole” and the “determination is a factual one to be made on the basis of all the evidence”, dependent “entirely on the particular circumstances of each case”. What drove the sales of SURPASS was not the cheaper, efficiently produced ethylene that was fully incorporated and merged into the final product but the superior physical properties and processability of the final product, superior qualities that were the fruits of Dow’s invention. This was proven in the Federal Court: reasons of the Federal Court at paras. 70-76; Federal Court judgment on liability at para. 252; Exhibit PR-16, AB-68 at 7. In the face of this, we cannot make our own factual findings and replace the Federal Court’s decision with our own.

[106] An infringer may have produced an infringing product using an efficient and well-trained workforce, one superior to that of the patentee. An infringer may have produced the infringing product using only four assembly lines rather than the patentee's seven. An infringer may be a better marketer than the patentee or may have superior distribution channels. Here, the infringer made its own raw material, ethylene, in a particularly efficient way. All of these are of no moment: NOVA's product infringed Dow's patent and, as the Federal Court found, based on the superior qualities of the infringing SURPASS in the market and other evidence, NOVA's gains were all caused by its infringement. To vindicate the patentee's rights to exclusivity and deter infringement, the profits earned from the infringement must be stripped from the infringer.

[107] In an accounting of profits, it is not open to an infringer to say the following. "Yes I infringed the patent, yes I violated the patentee's exclusive rights over its invention, and yes I wronged the patentee. But because I am more efficient I was able to benefit more from my wrongdoing, so I should be able to keep that extra benefit."

[108] Allowing an infringer like NOVA to deduct its efficiencies jeopardizes the patent bargain by creating wrong incentives and weakening deterrence. Those who are able to achieve efficiencies by making a raw material more cheaply, using established distribution channels, exploiting trusted brand name recognition or taking advantage of greater economies of scale, if given credit for these things, may have an incentive to infringe a patent—if caught, they may end up better off than if they did not infringe.

[109] Leaving an infringer with some of the profits it made from the infringement just because of the efficient nature of its operations effectively makes the infringer a joint venture partner with the patentee, able to get some benefit from its exploitation of the patentee's invention. However, the *Patent Act* gives the patentee a right to exclusivity over the invention or, put negatively, a right not to be forced into a joint venture with anyone concerning its invention.

[110] Simply put, in this case, the patentee, Dow, has a right against others exploiting its patent, whether that exploitation is efficient or inefficient, profitable or extremely profitable. Indeed, NOVA acknowledges this at paragraph 65 of its revised memorandum of fact and law (underlined emphasis added, italics in original):

> It is clear that an accounting of profits for patent infringement is intended to return to the patentee the *actual profits* earned by the infringer as a result of the infringement. This means that <u>if the profit margin on the infringing product is particularly high, or the infringer's market share during infringement is particularly large, the patentee will reap these benefits.</u>

[111] As will be explained at the conclusion of these reasons, this Court recently asked the parties for submissions concerning the effect of *Atlantic Lottery*, above, a recently released decision from the Supreme Court. In the course of its submissions, Dow addressed the present issue. It submits as follows (emphasis in original):

> Contrary to [NOVA's] submissions, [NOVA] did not make a "profit" (economic or otherwise) by manufacturing the ethylene. Rather, [NOVA] incurred a <u>cost</u> to manufacture the ethylene and in turn made <u>profits</u> by selling infringing SURPASS polyethylene products made from the ethylene. [NOVA's] approach of attributing "profits" to an individual raw material departs from the accounting of profits jurisprudence in which the infringer is taken "as they are" and costs are only deducted if actually incurred. Applying a "market value" to raw materials

> (whether higher or lower than the infringer's actual costs) has never been part of the accounting of profits analysis, and *Atlantic Lottery* does not change this approach. Moreover, there is no rational or equitable basis for adopting such an approach.
>
> Even if a "market value" approach to costing raw materials was supported by *Atlantic Lottery* or earlier jurisprudence, which it is not, it is of no avail to [NOVA].

[112] I agree with and accept this submission.

[113] My colleague suggests that the Federal Court did not decide this issue, which she calls the "apportionment" issue. Quite evidently it did, as the references, above, to the findings of the Federal Court on this point demonstrate.

[114] It is true that in the relevant section of its reasons on this issue, the Federal Court does not use the word "apportionment". But it did not need to. It would be wrong to quash its reasons based on an insistence it should have used that magic word: *R. v. Sheppard*, 2002 SCC 26, [2002] 1 S.C.R. 869; *R. v. R.E.M.*, 2008 SCC 51, [2008] 3 S.C.R. 3. Further, as I have explained in paragraph 48, above, "apportionment" is nothing more than the exercise of separating the actual benefits made *as a result* of the infringement of the patent, which are recoverable, from other sums, which are not. "Apportionment" is nothing more than the exercise of assessing causation, a factually suffused task.

[115] Unquestionably, the Federal Court always had causation front of mind in this case. At key parts of its reasons, it reminded itself of the causation requirement or used a form of words demonstrating its awareness of the need for Dow to establish it. To name a few (with emphasis

added): "the Court's role is to assess the actual profits made by the defendant as a result of the infringement" (at para. 108), "[a] plaintiff is entitled only to that portion of the infringer's profit that is causally attributable to the invention" (at para. 108), an accounting of profits "is restitutionary in nature, not punitive" so it should not strip the defendant of more than the gain in its hands made as a result of the infringement (at para 109), the plaintiff "bears the burden of proving the defendant's sales or revenues from the infringement" (at para. 110), the "revenues attributable to NOVA's infringement of the '705 Patent extend to those earned from" certain grades (at para. 111), springboard profits allowed NOVA to continue "to profit from its infringing activity" (at para. 112), and "[i]n an accounting of profits, the aim is to provide the plaintiff with all of the profits made by the defendant resulting from the infringement" (at para. 138). Quite properly, NOVA does not complain that the Federal Court did not have causation principles in mind throughout. It did.

[116] Ultimately causation depends on the facts. In this case, for very good reasons, the Federal Court found that all of the gain earned by NOVA as a result of its more efficient manner of manufacturing ethylene was gain made as a result of the infringement. It made this finding mindfully and having considered all of the evidence and arguments before it: *Housen* at para. 46. This finding was a factually suffused one on a question of mixed fact and law that attracts the very high standard of palpable and overriding error: see paragraphs 80-81, above. It is wholly consistent with and, in fact, reinforces the principles underlying an accounting of profits in the patent infringement context and, thus, on these facts, is legally sound. For one thing, it removes all incentives on the part of infringers to infringe.

[117] As an appellate court bound by the palpable and overriding error standard, we are forbidden from wading in, re-doing the factually suffused task of assessing causation, and substituting our views for those of the first-instance court.

[118] The analysis, above, on the state of the law, the evidentiary record before the Federal Court, and the appellate standard of palpable and overriding error addresses the remainder of my colleague's reasons, particularly her decision to "apportion" out of the accounting of profits the benefits resulting from NOVA's efficiencies and other benefits that NOVA might have earned in a hypothetical world.

[119] I would simply add that my colleague oversimplifies and narrows the patent in issue in this case. The patent does not just claim a process. It claims novel polymers used to make plastic products like stretch films and heavy duty shipping sacks that are stronger and require less plastic. The patented polymers (forms of polyethylene) are produced by connecting together molecules of ethylene with octane, as the patent describes. The protected polymers are different from and are said to be superior to others in the market. The fact that NOVA used a non-infringing way to make a raw material that is fully incorporated and merged into the protected polymers is beside the point: it earned a sizeable gain from infringing Dow's patent by making and selling the protected polymers—appropriating and exploiting Dow's invention for itself—and it should not be left with any of the gain made as a result of its wrongful act. This the Federal Court found in its factually suffused assessment of causation. Under the appellate standard of palpable and overriding error we should respect its finding, not replace it with our own.

[120] Therefore, on the so-called "apportionment" issue, the Federal Court neither erred in law nor committed palpable and overriding error. Its decision must be left in place.

**(2) Did the Federal Court err in awarding "springboard profits"?**

[121] The Federal Court summarized this issue as follows (at para. 112):

> If [NOVA] had not infringed [Dow's patent], then it would have taken [NOVA] some time following the patent's expiry to attain the same level of sales of the infringing products that [NOVA] enjoyed in April 2014. Dow says that [NOVA's] infringement of [Dow's patent] provided it with a "springboard" into the market and, as a result, [NOVA] continued to profit from its infringing activity after the expiry of [Dow's patent]. Dow says that it is entitled to receive these "springboard profits" from April 20, 2014 to December 31, 2015.

[122] The Federal Court allowed Dow the springboard profits it sought.

[123] NOVA makes two arguments against the Federal Court's awarding of springboard profits. First, NOVA submits that springboard profits are not available at law. In the alternative, NOVA submits that if springboard profits are available at law, the Federal Court incorrectly calculated the springboard profits.

[124] The first issue is reviewable on correctness and the second on the standard of palpable and overriding error: *Housen*, above.

[125] While the parties did not acquaint the Court with a Canadian authority where an infringer was ordered to disgorge springboard profits, there is no principled reason standing in the way. I

agree with the observations of the Federal Court in *AstraZeneca Canada Inc. v. Apotex Inc.*, 2015 FC 671 at para. 7. There, in the context of compensatory damages, the Federal Court suggested that so-called springboard damages are "nothing more than a type of loss no different than any other claim to damages". Similarly, so-called springboard profits are nothing more than a type of gain from patent infringement, just like other gains from patent infringement. This was the reasoning of the Scottish Court of Session in a decision cited by the Federal Court (at para. 114): *Bayer Cropscience KK v. Charles River Laboratories Preclinical Services Edinburgh Ltd. & Albaugh Inc.*, [2010] CSOH 158.

[126] A key source of a patent's value is in its statutory monopoly period. If the infringer's post-expiry profits can be causally linked to its unauthorized invasion of this monopoly, then those profits should be disgorged. Use of the patent during the monopoly period caused the profits. As the Federal Court said, springboard profits "are nothing more than a type of [gain] to be proven with evidence": para. 124.

[127] In oral argument, NOVA seemingly accepted springboard profits as an inescapable outcome flowing from the application of causation principles but questioned whether, as a matter of freestanding policy, post-expiry profits should be disgorged. But freestanding policy does not give this Court license to subvert the accepted principles in an accounting of profits: *ADIR FCA* at para. 34. Courts operate according to law, not policy: *Canada (Citizenship and Immigration) v. Ishaq*, 2015 FCA 151, [2016] 1 F.C.R. 686 at para. 26.

[128] In any event, NOVA's policy arguments run very much contrary to the legal considerations canvassed at paragraphs 20-28, above. To allow an infringer to retain any advantage gained from its infringement is to incentivize the infringement: see paragraph 28, above. If post-expiry profits are immune from the reach of an accounting of profits, an infringer could be economically incentivized to invade the patentee's monopoly shortly before its expiry. The infringer would disgorge its minimal "ramp-up" profits and use the infringement to springboard into the patentee's post-expiry market share. Recognizing this economic advantage, competitors would likely follow suit and, in effect, abridge the length of the patentee's monopoly. As a matter of policy, awarding springboard profits, where appropriate, best defends and restores the integrity of the patentee's monopoly.

[129] NOVA's memorandum raises three other reasons why the Federal Court erred in law by awarding springboard profits. All three arguments should be rejected.

[130] While NOVA correctly states that "an accounting of profits takes place in the real world" (NOVA's revised memorandum of fact and law at para. 66), it incorrectly suggests that springboard profits require the application of an impermissible "hypothetical exercise" in the "but for" world (para. 67). Springboard profits seek to identify the *actual profits* causally attributable to the infringement. There is no hypothetical world involved: the profits disgorged are actual profits that are causally connected to the patent's exclusivity rights.

[131] Establishing causation for springboard profits is no different from any other question of causation in the accounting of profits context: it requires a causal link between the profits and the

patent. A non-infringing baseline, the “ramp-up” period, is established with expert evidence and is compared to the total profits the infringer earned. The difference between the two is the value added from the unauthorized use of the patent. As discussed above, there is no “but for” reasoning when using non-infringing baselines: see paragraphs 37-45 and 65-79, above. The same logic applies here when using the “ramp-up” period as a type of non-infringing baseline.

[132] NOVA also contends that once the plaintiff elects for an accounting of profits, the plaintiff “condones” or “adopts” the infringer’s behaviour. This is what some call “condonment theory”. Applying the condonment theory, NOVA says that, having condoned the infringer’s actions, Dow cannot turn around and demand springboard profits from an authorized or “condoned” use of its patent.

[133] Condonment theory, first articulated in *Neilson v. Betts* (1871), L.R. 5 H.L. 1, was used to explain why a plaintiff is not entitled to both damages and an accounting of profits. The theory has been subject to intense academic criticism: *e.g.*, Stephen Watterson, “An Account of Profits or Damages? The History of Orthodoxy” (2004) 24:3 O.J.L.S. 471; Burrows, above at 628-629; David Vaver, “Civil Liability For Taking or Using Trade Secrets in Canada” (1981) 5 Can. Bus. L.J. 253 at 296-300.

[134] These authorities unanimously reject the condonment theory as an untenable fiction. Instead, condonment theory is best understood as an “imperfect analogy” to assist in understanding why a patentee cannot receive both remedies: *L.P. Larson Jr., Co. v. William Wrigley Jr., Co.*, 227 U.S. 97 (1928) at 99-100; see also: *Cala Homes (South) Ltd. v. Alfred*

*McAlpine Homes East Ltd (No. 2)* (1995), [1996] F.S.R. 36 (Eng. Ch. Div.) at 41-42, cited at para. 118 of the Federal Court's reasons.

[135] The real reason why a patentee does not have access to both remedies is because this would result in double recovery: Burrows, above at 629. Disgorged profits will incidentally compensate the patentee. Compensation will incidentally disgorge some of the infringer's profits. To allow for both in full is to allow for double recovery.

[136] To the extent that Canadian cases have referred to the condonment theory (*e.g.*, *Beloit Canada Ltd v. Valmet-Dominion*, [1997] 3 F.C. 497, 73 C.P.R. (3d) 321 (C.A.) at para. 100), they have done so only as a means of explaining why a patentee cannot have both damages and an accounting of profits. There is no suggestion in these authorities that the patentee is deemed to have actually condoned or adopted the infringer's activities or that *Neilson* has any ripple effect beyond the election phase.

[137] NOVA also says that its true "ramp-up" period was in this post-filing, pre-grant time period. Thus, says NOVA, an accounting of profits "overcompensates" Dow by handing over the fruits of NOVA's enhanced market share during the post-grant phase: NOVA's revised memorandum of fact and law at para. 69.

[138] Concerns about overcompensation and undercompensation of the patentee are misplaced in the accounting-of-profits context. Appropriate compensation is a question for compensatory damages, not an accounting of profits. The focus in an award of compensatory damages is on the

plaintiff's injury. An accounting of profits, on the other hand, focuses on the infringer and the infringer's actual profits. The actual profits made as a result of infringement must be stripped from the infringer to remove any incentive to infringe and to vindicate the patentee's right to exclusivity over the invention.

[139] The patentee must take the infringer as it finds it. If the infringer happens to be particularly profitable during the relevant infringement period (*i.e.*, post-grant), then the patentee will be entitled to a greater award. The converse is true: if an infringer failed to gain a foothold in the market, it would not disgorge profits that it should or could have earned had it been savvier in its infringement. Taking NOVA as it is found is necessary to extract the value added to NOVA by the infringement and remove the economic incentive to infringe.

[140] Finally, NOVA takes issue with the Federal Court's calculation of springboard profits. NOVA suggests that, if springboard profits are to be awarded, they can only be awarded in the "but for" world. Therefore, NOVA should be entitled to deduct the ethylene profits it would have earned "but for" the infringement (*i.e.*, its opportunity costs): NOVA's revised memorandum of fact and law at paras. 71-76.

[141] As explained above at paragraphs 37-45 and 130-131, springboard profits are not calculated in a hypothetical "but for" world. The profits disgorged are the actual profits NOVA earned that are causally attributable to the infringement.

[142] Overall, on the issue of springboard profits, NOVA has not established any error of law or palpable and overriding error on the part of the Federal Court. Indeed, I substantially agree with the analysis of the Federal Court on this issue.

(3) **Did the Federal Court err in selecting the "full costs" method for deducting costs?**

[143] The Federal Court selected the "full costs" or "absorption" method to deduct costs. In its cross-appeal, Dow challenges this.

[144] In my view, while the Federal Court reached the correct outcome in deducting costs, it selected the full costs method on an incorrect basis.

[145] Applying an Australian High Court decision, *Dart Industries*, above, the Federal Court held that the "full costs" approach can be implemented as long as the infringer is operating at full capacity and can prove an opportunity cost. In my view, to the contrary, the "full costs" approach should always be available to an infringer. Indeed, absent some exceptional and compelling circumstance or persuasive expert evidence in a particular case, the "full costs" approach is the preferred method for deducting costs.

[146] The Federal Court recognized that an infringer is typically entitled to deduct only its incremental costs. In choosing the "full cost" approach, the Federal Court relied on *Dart Industries*. In my view, while *Dart Industries* provides a helpful summary of accounting of profits principles, its rule for deducting full costs should not be adopted in Canada.

[147] The rule in *Dart Industries* can be explained as follows. Where an infringer but for the infringement would have been able to replace the infringing product with another profit-producing, foregone alternative, it should be permitted to deduct a portion of its fixed costs. The idea is that had the infringer not infringed, its foregone opportunity would have absorbed a portion of these fixed costs.

[148] The principled error in this logic is easy to spot: *Dart Industries* allows an infringer to deduct a hypothetical opportunity cost which is not a cost actually incurred. As explained above, accounting of profits occurs in the real world. Actual profits must be disgorged which means only actual costs can be deducted.

[149] Opportunity costs are never deductible in this context. The Court in *Dart Industries* acknowledges this: the High Court says that “the defendant may not deduct…opportunity cost[s]” but goes on to say that “there would be real inequity” if the Court denied a deduction for both fixed costs and opportunity costs: *Dart Industries* at 114.

[150] Why? Because, in the High Court’s view, “[i]f both were denied, the defendant would be in a worse position than if it had made no use of the patented invention”: *Dart Industries* at 114. And if the defendant did not have an opportunity cost and the full costs approach was applied, “the defendant would be in a better position than it would have been if it had not infringed”: *ibid*.

[151] But this language—“worse position” or “better position”—is reserved exclusively for compensatory damages. Whether the infringer would be better off or worse off but for the

infringement is irrelevant. The reality is that the infringer did infringe and, therefore, it must account only for its actual revenue and deduct only its actual costs.

[152] On top of this, there is no principled reason to allow the infringer to deduct only a portion of its opportunity costs. If the infringer can deduct opportunity costs to off-set or absorb its fixed costs, why should it not be able to deduct all of its opportunity costs? Why draw the line at fixed costs? If the court does not want the infringer to be "worse off", it would allow the defendant to deduct all of its opportunity costs.

[153] Whenever an infringer is denied the opportunity to deduct opportunity costs, it will always be "worse off" than it would have been had it never infringed. But, again, an accounting of profits is indifferent to whether an infringer will be "better off" or "worse off". All that matters is that all of the actual profits caused by the infringement are disgorged.

[154] In short, *Dart Industries* carves out a limited use for opportunity costs to reduce a "real inequity" but this exception is not rooted in any principle. While I reject the Federal Court's reliance on *Dart Industries*, selecting the full costs approach was not in error. In my view, the full costs approach is principled and sound.

[155] All incremental costs are deductible; there is no controversy over this. The only question in issue in this case is whether a proportion of an infringer's stagnant overhead costs are deductible.

[156] The seminal case rejecting the full costs approach in Canada is *Teledyne*, above. In *Teledyne*, the Federal Court expressed the view that the full costs approach would "constitute in effect unjust enrichment of the infringer" because those fixed costs "would have been incurred had the infringing operation not taken place": at 210, 213.

[157] But this reasoning falls into the trap of using hypotheticals. *Teledyne* requires a "but for" analysis to determine what "would have been incurred had the infringing operation not taken place" (at 213). The reality is that the infringer did incur those costs. Without incurring certain overhead costs (*e.g.*, property taxes, lighting, heating), the infringing product could not be produced. While the fixed costs did not increase as a result of the infringement, it does not mean that they are not causally attributable.

[158] Consider a factory that produces eight separate infringing product lines where each product infringes a different patent. If each of the eight patentees brings separate infringement proceedings, could the infringer never deduct its overhead costs? Certainly each product absorbed a portion of those necessary overhead costs: *Dart Industries* at 116-120; *Tremaine v. Hitchcock*, 90 U.S. 518 (1874).

[159] What if only seven of the eight product lines are infringing? Should the one non-infringing product line shoulder all of the overhead? It is clear that those overhead costs were necessary to produce the infringing products. Indeed, if proportionate fixed costs are not deducted, the overhead that was absorbed by the infringing product will be shifted on to an

infringer’s non-infringing products. This would unfairly burden a perfectly legal product line for no principled reason.

[160] Denying the deduction of fixed costs generates a distorted picture of the infringer’s profits. It may be the case that an infringer has minimal variable costs but very high overhead costs such that the product is not, in fact, profitable. The incremental approach advocated for in *Teledyne* could force that infringer to disgorge “profits” from an unprofitable product.

[161] The fear that allowing a deduction of fixed costs would permit an infringer to, in effect, subsidize its non-infringing products is unfounded. An infringer would only be entitled to deduct a proportion of its fixed costs. For example, if an infringing product occupies 1% of a factory’s production capacity or volume, only 1% of the fixed costs will be deducted.

[162] Therefore, there is no need for the *Dart Industries* exception; the “real inequity” identified by the Australian High Court disappears. Any infringer, regardless of whether it is operating at full capacity, should be able to deduct a proportion of its fixed costs.

[163] Regardless of whether *Teledyne* should be overturned, there is no basis to conclude that the full costs approach is legally unsound. Therefore, I would uphold the Federal Court’s selection of the full costs approach and dismiss Dow’s cross-appeal.

[164] In my view, absent some exceptional or compelling circumstance or persuasive expert evidence to the contrary in a particular case, the full cost method is the appropriate approach to

deducting costs in an accounting of profits. The Federal Court adopted that method and did not commit a reversible error in so doing.

**(4) Did the Federal Court err in converting the currency at the date of judgment?**

[165] Section 12 of the *Currency Act*, R.S.C., 1985, c. C-52 requires courts to render judgments in Canadian dollars. The Federal Court converted the award at the date of judgment. Was this correct? When should courts convert currency in the accounting of profits context?

[166] In *AlliedSignal Inc. v. Dupont Canada Inc.* (1999), 86 C.P.R. (3d) 324, 235 N.R. 185 (F.C.A.), this Court held that converting at the date of judgment is an available option in the accounting of profits context: paras. 15-16. Bound by that decision—and seeing no particular circumstances to distinguish *AlliedSignal*—I would uphold the Federal Court's decision to do the same. Indeed, as will be discussed below, the particular facts of this case make it such that conversion at the date of judgment is the only correct outcome.

[167] NOVA insisted that *AlliedSignal* was inconsistent with binding Supreme Court authorities calling for conversion at the date of breach, not judgment: *National Bank für Deutschland v. Blucher*, [1927] S.C.R. 420, [1927] 3 D.L.R. 40; *Gatineau Power Co. v. Crown Life Insurance Co.*, [1945] S.C.R. 655, [1945] 4 D.L.R. 1; see also *N.V. Bocimar S.A. v. Century Insurance Co. of Canada* (1984), 53 N.R. 383, 7 C.C.L.I. 165 (F.C.A.) rev'd on other grounds [1987] 1 S.C.R. 1247, 39 D.L.R. (4th) 465.

[168] But none of these cases concern an accounting of profits. In the accounting-of-profits context, the rationales underpinning the breach date rule simply do not apply. In the context of compensatory damages, the breach-date rule creates "instant justice" by preserving exactly what the parties would have exchanged had the breach never occurred: S.M. Waddams, *The Law of Damages* (Toronto: Thomson Reuters, 2017) (looseleaf updated November 2017) at §7.100. Compensatory relief frets over whether the plaintiff will be overcompensated or undercompensated. Allowing one of the parties to derive a benefit from market fluctuations—a circumstance independent from the breach—would undermine compensatory principles: *e.g. Blucher*, above at 426-427.

[169] In contrast, an accounting of profits seeks to extract any and all value the defendant received as a result of the wrongdoing. The remedy is indifferent to the plaintiff's ultimate compensation. Indeed, in an accounting of profits, there is no measuring stick to assess whether the plaintiff has been overcompensated or undercompensated. Sometimes the plaintiff walks away with a windfall. Sometimes it may walk away with much less.

[170] At the time of the Federal Court's judgment, the profits earned by NOVA became more valuable because of the increased value of U.S. dollars. Because NOVA held the profits primarily in U.S. dollars throughout the period of the infringement (Federal Court's reasons at para. 188), conversion at the time of judgment ensures that the entire value of the actual profits earned as a result of the infringement is disgorged.

[171] The reasons to convert at the date of judgment apply equally regardless of whether the value of the foreign currency increases or decreases. For example, imagine a foreign currency that collapses after the infringement period. While the infringer's foreign currency profits were valued at $1,000,000 CAD during the infringement, the foreign currency's collapse made the profits worth only $100 CAD at the date of judgment. NOVA posited a similar scenario in its oral argument and suggested that this Court would never convert the foreign currency at the date of judgment (*i.e.*, make the infringer disgorge only $100 CAD).

[172] But why not? If an accounting of profits is focused on extracting the profits earned as a result of the infringement, why extract more or less than what's actually in the infringer's pockets at the time of judgment. If currency fluctuations have done the heavy lifting and have whittled away at the infringer's fortune, so be it. To apply the breach date rule and extract $1,000,000 CAD would extract more than what the infringer actually earned.

[173] NOVA's premise rests on the idea that this Court, perhaps for optics, would never let the patentee walk away with a mere $100 CAD flowing from a significant infringement. While this may strike some as strange, there is nothing unprincipled or unfair about it: an accounting of profits is indifferent to the patentee's award. Just as a patentee may receive a windfall, a patentee may also receive a seemingly underwhelming award: *e.g.* see *Schmeiser*, above at para. 105. But as long as the infringer's profits are extracted, and, thus, the integrity of the patent bargain is restored, then it does not matter what the patentee actually receives.

[174] This may require, as was done here (see Federal Court's reasons at paras. 166-174), a carefully considered "profits on profits" analysis to ensure that the value of holding the once-valuable foreign currency is accounted for. For instance, the infringer may have utilized the once-valuable, ill-gotten gains to generate more profits before the collapse of the foreign currency. As long as the decision takes this into consideration, conversion at the date of judgment will simply extract the value of the profits.

[175] For these reasons, the Federal Court correctly converted NOVA's profits at the date of judgment.

### C. A recent development

[176] Just before the finalization of these reasons, the Supreme Court released its decision in *Atlantic Lottery*, above. In *Atlantic Lottery*, it offered a number of observations about unjust enrichment, restitutionary recovery and disgorgement.

[177] This Court is of the view that *Atlantic Lottery* did not affect the foregoing analysis. Nevertheless, out of caution and in order to be sure that the parties were treated in a procedurally fair way, this Court invited the parties to make written submissions as to the relevance and effect of *Atlantic Lottery*.

[178] The Court has received those submissions.

[179] In its submissions, NOVA reiterates its argument that it was an error of law for the Federal Court to require NOVA to pay to Dow its ethylene profits and that it should have only required NOVA to pay to Dow its infringing polyethylene profits. In support of this, it cites *Atlantic Lottery* for the proposition that Dow's recovery is limited in law to the defendant's wrongful gain.

[180] Of course, as mentioned above, this was the law before *Atlantic Lottery*. Of note is that the Supreme Court emphasized (at para. 23), as previous cases have, that the award is to be "calculated exclusively by reference to the defendant's wrongful gain, irrespective of whether it corresponds to damage suffered by the plaintiff…". In saying this, the Supreme Court means the actual wrongful gain the wrongdoer acquired, not a gain that takes into account what it might have happened in a "but-for", hypothetical world in which the wrongdoing did not take place.

[181] In its submissions, Dow argues that *Atlantic Lottery* does not affect any of the issues in the appeal or cross-appeal. It adds that NOVA, with its "ethylene profits" argument is attempting to deduct costs that the Federal Court (at para. 139) found NOVA did not incur. It adds that "[t]here is no jurisprudence (and NOVA points to none, including Atlantic Lottery) that would support allowing an infringer to keep part of the profits derived from infringing sales by simply re-labelling them as 'profits' attributable to raw materials used in making the infringing product". Finally, it submits as follows:

> Overall, the ethylene cost actually incurred by [NOVA] to produce the infringing SURPASS was its actual cost to manufacture ethylene. [NOVA's] "wrongful gain" as referenced by the Supreme Court in *Atlantic Lottery* [at para. 23], must take into account its actual cost, and not a theoretical, elevated cost [NOVA] did

> not incur. To permit a deduction based on a theoretical “market value” or “market price” of a raw material would artificially increase the deduction associated with that raw material beyond the expense actually incurred. This would permit [NOVA] to keep, rather than disgorge, a portion of its “wrongful gain” resulting from its infringement. Such a result is contrary to the purpose of an accounting of profits, including the deterrence goal that a disgorgement is to serve as reference in *Atlantic Lottery*, as it would not render the wrong “unprofitable” [at para. 117]. (footnotes omitted)

I agree entirely with Dow’s submissions.

**D. Conclusion**

[182] The Federal Court committed no reviewable error when it dismissed NOVA’s apportionment arguments, awarded springboard profits, applied the “full cost” method for deducting costs, and converted the foreign currency at the date of judgment.

[183] This was a difficult, high-stakes case and I commend the Federal Court on the high quality of its analysis and reasons. I also commend counsel on their helpful submissions in this Court.

## E. Proposed disposition

[184] Therefore, in both court files, I would dismiss the appeal and the cross-appeal, each with costs.

"David Stratas"

J.A.

"I agree
D.G. Near J.A."

**<u>WOODS J.A.</u> (Public Dissenting Reasons)**

[185] My colleague has helpfully contributed to an understanding of the principles of an accounting of profits in an infringement context. I agree with his conclusions on all issues except the issue of apportionment. For the reasons below, I have concluded that an apportionment of profits is appropriate in this case. I also conclude that the Federal Court made a reviewable error by not considering the issue of “causation”, which is at the heart of the legal test of apportionment.

[186] NOVA submits that the Federal Court erred in ordering that NOVA disgorge its entire profit (revenues less costs) from sales of SURPASS. This amount will be referred to below as “SURPASS Profits”.

[187] In my view not all SURPASS Profits should be disgorged because they are not entirely attributable to the infringing activity. To put the issue in context, the total amount ordered to be paid to Dow was approximately $644 million, and according to NOVA the failure to apply an apportionment of profits resulted in inflating the award by more $300 million.

[188] SURPASS is a type of polyethylene product in which the key ingredient is ethylene. Both ethylene and polyethylene are commodity chemicals. NOVA was found to infringe a Dow patent over certain polyethylene compositions by manufacturing SURPASS and selling it in competition to Dow’s product, ELITE.

[189] Ethylene is a key ingredient in the manufacture of a number of different products, including polyethylene, styrene monomer, styrenic polymers, polyvinyl chloride, ethylene oxide, ethylene glycol, ethylene dichloride and vinyl acetate.

[190] Polyethylene is a form of plastic. Its commercial uses include grocery bags, food wrappers, pipes, pails and crates.

[191] To make polyethylene products, thousands of small ethylene molecules are bound together into a long chain. Accordingly, ethylene must be obtained in order to manufacture polyethylene products. The infringed patent covers the process of manufacturing a type of polyethylene product used to make SURPASS. It does not cover any process for manufacturing ethylene.

[192] NOVA manufactures and sells both ethylene and polyethylene products.

[193] NOVA produces ethylene in Joffre, Alberta. It uses approximately half its ethylene production to produce NOVA's polyethylene products made in Alberta. NOVA also sells ethylene to third parties. NOVA's process for producing ethylene does not infringe Dow's patent.

[194] NOVA also manufactures polyethylene products in Joffre. Some polyethylene products were made and sold by NOVA under the name SURPASS. Some of the SURPASS products were found to infringe Dow's patent.

[195] SURPASS is produced by NOVA using two separate processes – a process for producing ethylene and a process for manufacturing the polyethylene product, SURPASS. If NOVA had produced SURPASS from ethylene purchased at market prices rather than using ethylene it produced, the apportionment issue in this case would not arise.

## A. Is an apportionment of profits appropriate in this case?

[196] The general legal principle is that the wronged party "is only entitled to that portion of the infringer's profit which is causally attributable to the invention," which is to be determined "on a common sense view of causation" (*Monsanto Canada Inc. v. Schmeiser*, 2004 SCC 34, [2004] 1 S.C.R. 902 at para. 101). Before the Federal Court, NOVA submitted that SURPASS Profits are comprised of two elements - profits causally attributable to the infringing process (the manufacture of polyethylene using ethylene) and profits causally attributable to the non-infringing process (the production of ethylene). It was submitted that only the former should be disgorged.

[197] Apportionment issues may arise in a variety of circumstances. For example, a product that is sold may be comprised of both infringing and non-infringing materials (*Wellcome Foundation Ltd. v. Apotex Inc.*, [2001] 2 F.C. 618, 11 C.P.R. (4th) 218 (C.A.)). In the present case, the product that was sold did not consist of infringing and non-infringing materials. Instead, the product that was sold was produced using two processes.

[198] The general principle to be applied in all circumstances is to consider whether there are non-infringing elements which contribute to the overall value or marketability of the entire product (*Bayer Aktiengesellschaft v. Apotex Inc.* (2001), 10 C.P.R. (4th) 151 (Ont. Sup. Ct.) at para. 23). In the circumstance where the product sold is made from a patented process, the principle is that the entire profits should be disgorged unless the infringer can show "that a portion of them is the result of some other thing used by him" (*Bayer* at para. 22, citing the U.S. Supreme Court in *Westinghouse Electric & Manufacturing Co. v. Wagner*, 225 U.S. 604 (1912) at 614-615).

[199] In this case, SURPASS Profits are attributable to two separate processes – ethylene production and polyethylene manufacturing. A circumstance such as this was discussed by the English Patents Court in *Celanese International Corp. v. BP Chemicals Ltd*, [1999] R.P.C. 203 (Pat. Ct.). At paragraph 43 of *Celanese*, Mr. Justice Laddie discusses that an apportionment is appropriate if one of the processes is non-infringing:

> … Profits attributable to the non-infringing parts were not caused by or attributable to the use of the invention even if the use of the invention was the occasion for the generation of those profits. For example imagine a case in which there is a 3-stage process for making the product. The profits achieved by making and selling the product are attributable to each of the three stages. Assume also that each stage is protected by a separate patent. There is only one profits "pot" which has to be divided amongst the three stages. Where each stage is as expensive to run and as important to the characteristics of the final product as the other stages it may be that one third of the profits should be attributed to each of them. If this is so, then that attribution applies whether the three patents are owned by the same or different proprietors. It must also apply even when one or more of the patents expires or even if one or other patent has not been applied for. The existence or expiry of patent protection does not alter which stages make what profit. In such a case it is necessary to apportion the total profits actually made among the stages or parts which generated it.

[200] In my view NOVA has amply demonstrated that an apportionment of SURPASS Profits is appropriate in this case. Plainly, the production of ethylene was a non-infringing element which contributed to the value of SURPASS. The quantum of this contribution should not be disgorged.

[201] My colleague takes a different view and concludes that the manufacture of ethylene is "part and parcel of the manufacture and sale of the infringing product." This statement is accurate as far as it goes. But it does not properly take into account the value that the non-infringing activity contributed to SURPASS Profits. On a common sense view, this should not be disgorged.

**B. Did the Federal Court fail to consider the legal test of apportionment?**

[202] NOVA submits that the Federal Court failed to consider the proper legal test of an apportionment of profits as described in *Schmeiser* – Is there a portion of SURPASS Profits which is not causally attributable to the Dow patent? NOVA submits that the failure to consider this question is an error of law. I agree.

[203] The relevant part of the Federal Court's reasons are set out in paragraphs 134 to 140 under the general heading *Deductible Costs*. Paragraph 134 sets out the Court's description of NOVA's argument and paragraph 139 encapsulates the Court's reasons for rejecting the argument:

> [134] Nova says that the true economic value of ethylene is its value in a market transaction, regardless of whether the ethylene is produced by Nova or a third party, used to make infringing or non-infringing products, sold to third parties or used by the entity that produced it. Nova therefore argues that the appropriate measure for determining the deductible cost of ethylene is the average third party selling price (*i.e.*, the market price). …
>
> …
>
> [139] An accounting of profits should be based on actual revenues and costs (*Rivett* at para 92). Here, Nova enjoyed an economic advantage with respect to the cost of ethylene, the benefit of which must now be passed on to Dow. Nova did not pay a market price for the ethylene it used to manufacture the infringing products. While Nova kept separate business records indicating a "transfer price" for ethylene for the Western Olefins business segment, which produced ethylene at the Joffre site, Nova concedes that the ethylene was produced by the same corporation that produced the infringing products: Nova Chemicals Corporation. Nova does not suggest that the "transfer price", *i.e.*, the price recorded on several of Nova's internal statements, is the appropriate measure of the cost of ethylene. Put simply, Nova's position that the market price should be applied is based upon a theoretical cost that it did not incur.

[204] Considering the Federal Court's reasons as a whole, and in particular the Court's summary of NOVA's argument and its reasons for rejecting it, I conclude that the Court failed to consider NOVA's argument that a portion of the SURPASS Profits are not causally attributable to Dow's patent. Put simply, the general apportionment principle described in *Schmeiser* was not considered.

[205] What the Federal Court did consider was the part of NOVA's argument concerning the appropriate <u>quantum</u> of an adjustment for an apportionment of profits. In a somewhat confusing manner, NOVA suggested to the Federal Court that the apportionment should be effected by taking a deduction for the market value of ethylene instead of a deduction for NOVA's actual costs of producing ethylene. The following excerpt from the Federal Court proceeding is an

exchange between the reference judge and counsel for NOVA during closing argument (Transcript of Federal Court hearing, Appeal Book, at p. 034698-034699):

> Justice: You're saying the apportionment argument is in fact the same as the argument that ethylene should be given a fair market value as opposed to an actual cost value?
>
> Counsel: Well, it should be given a fair market value, correct. That's the point we're talking about, apportionment on that basis. We also cite … a quote from the ADIR and Apotex case, and the proposition is that:
>
> > "The notion of apportionment is, in my view, little more than a restatement of the principle that only those profits that are causally attributable to the invention should be disgorged."
>
> And that's really what our point is here. It's based on the market price. …

[206] NOVA argued that there should be an apportionment of SURPASS Profits that removes NOVA's profit attributable to the production of ethylene. Before considering the appropriate quantum, the Federal Court was required to consider whether this is an appropriate case for apportionment, that is, whether a portion of SURPASS Profits are attributable to something other than an infringing activity.

[207] The Federal Court did not put its mind to this issue, and in doing so it failed to consider the proper legal test for an apportionment of profits. This is an error of law (*Ledcor Construction Ltd. v. Northbridge Indemnity Insurance Co.*, 2016 SCC 37, [2016] 2 S.C.R. 23 at para. 101).

## C. Conclusion

[208] For the reasons above, I am of the view that an apportionment of profits should be made. I would allow the appeal, set aside the judgment of the Federal Court to the extent that it does not permit an apportionment of SURPASS Profits, and, making the order that the Federal Court should have made, I would order that an apportionment of profits be made. I would further remit the matter to the Federal Court to determine the quantum of the necessary adjustment, and to determine any consequential effects.

"Judith Woods"

J.A.

**<u>FEDERAL COURT OF APPEAL</u>**

**<u>NAMES OF COUNSEL AND SOLICITORS OF RECORD</u>**

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|---|---|
| **DOCKETS:** | A-150-17 and A-227-17 |

**APPEAL FROM A SUPPLEMENTAL JUDGMENT OF THE HONOURABLE MR. JUSTICE FOTHERGILL DATED JUNE 29, 2017, NO. T-2051-10**

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|---|---|
| **STYLE OF CAUSE:** | NOVA CHEMICALS CORPORATION v. THE DOW CHEMICAL COMPANY, DOW GLOBAL TECHNOLOGIES INC. AND DOW CHEMICAL CANADA ULC |
| **PLACE OF HEARING:** | OTTAWA, ONTARIO |
| **DATE OF HEARING:** | JUNE 19, 2018 |
| **PUBLIC REASONS FOR JUDGMENT BY:** | STRATAS J.A. |
| **CONCURRED IN BY:** | NEAR J.A. |
| **PUBLIC DISSENTING REASONS BY:** | WOODS J.A. |
| **DATED:** | SEPTEMBER 15, 2020 |

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