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Dyno Nobel Asia Pacific Pty Ltd v Orica Explosives Technology Pty Ltd & ors

NSD 1484/2025

**ORICA'S OUTLINE OF SUBMISSIONS
IN ANSWER TO THE AMENDED NOTICE OF APPEAL
AND ON THE NOTICE OF CONTENTION**

Information in **red text** contains confidential information the subject of suppression orders.

Transcript references in **red text** refer to evidence given in closed court.

A. 079 AND 165 PATENTS: BEST METHOD

A.1 Overview issues (ANoA [1]-[3])

1. Contrary to Dyno’s Outline of Submissions in Chief dated 24 February 2026 (DS) [9], there was nothing straightforward about Dyno’s best method case at trial. It began with a disjointed pleading, with allegations pertaining to an abandoned false suggestion case cobbled to a best method case. The best method allegations were particularised by reference to whole annexures of an affidavit¹ (see 6FASOC [171]) which Dyno said in closing submissions contained ‘aspects’ of the material facts of its case.²
2. From Dyno’s pleading,³ Orica understood that the case it had to meet at trial was an alleged failure to disclose the best method of how the “charge storage device” of the 079 and 165 Patents discharged a voltage sufficient to fire the detonator, when the “charge storage device” itself was charged by a power source that had insufficient voltage for firing.
3. Orica’s case in answer to this was simple. The 079 and 165 Patents disclose that the “charge storage device” of the inventions must act as a voltage multiplier (VM).⁴ Her Honour correctly construed “charge storage device” in that way at J [275]. Dyno does not challenge that finding.
4. A VM is a simple electronic circuit. It uses well-known components such as diodes, capacitors and switches arranged in a circuit in such a way so as to multiply, store and moderate the discharge of electromagnetic energy at a voltage greater than the voltage of the input source. At the priority date, voltage multipliers could be made easily, or bought as integrated circuits: J [224]-[226].
5. The requirement to describe “*the best method known to the [patentee] of performing the invention*” is underpinned by the policy that others should be enabled to “*practically to avail themselves of the invention when the patent is expired*”.⁵ That policy was amply satisfied here.
6. There was no question at trial that the relevant experts *could* make the “wireless detonator assembly” and “wireless electronic booster” of the 079 and 165 Patents, respectively, including within them the “charge storage device” that stored and multiplied charge. Dyno did not argue

¹ Those annexures comprising 90 pages.

² [REDACTED]

³ 6FASOC [171].

⁴ In these submissions, “VM means” refers to “voltage multiplication means”.

⁵ *Sandvik Intellectual Property AB v Quarry Mining & Construction Equipment Pty Ltd* [2017] FCAFC 138; (2017) 126 IPR 427 at [99], [108], [115]; *Les Laboratoires Servier v Apotex Pty Ltd* [2016] FCAFC 27; (2016) 117 IPR 415 at [108].

otherwise, because that would have been fatal to its obviousness case.

7. The inventions of the 079 and 165 Patents are *not* properly characterised as inventions for which the particular instantiation of a VM’s circuit is in any way material. Rather, the proper characterisation and “*essence*” of the inventions, as Dyno’s own experts explained, is to a “*wireless detonator assembly*”⁶ and a “*wireless electronic booster*”,⁷ respectively, each comprising a combination of features.⁸ The experts agreed that “*all of these items*⁹ relate to controlling energy within the system, which was a well known safety feature at the relevant date”. Consistently with this, Prof Skafidas’ evidence that her Honour accepted at J [576] was that the 079 and 165 Patents were concerned with the “*architecture*” of features in the detonator assembly and booster, working as a system.¹⁰ On that proper characterisation of the inventions, Orica was not required to disclose details of the componentry of the VM function.
8. In DS [9] Dyno identifies that the high points of its case are that Orica **(i)** was required to describe “*a charge storage device which would perform a VM function*” but failed to do so, and **(ii)** was required to describe “*the particular VM means it had developed and decided to use in its commercial embodiment of the inventions*” but failed to do so, and that on either of those counts, Orica did not satisfy the best method requirement.
9. The short answer to those points is: **(i)** Orica was not required to disclose a **particular** charge storage device having a VM function on the proper characterisation of the invention. This does not offend the policy considerations of the best method requirement, because devices that perform a VM function were so exquisitely simple to make or acquire. They comprised well-known parts, arranged in well-known circuits (e.g. boost circuits and charge pumps), known for decades before the Priority Dates,¹¹ at a first year university level.¹² Any particular “*VM function*” design depended on the given detonator with which it was to interoperate.¹³ A more detailed disclosure of the componentry comprising a “charge storage device” for use with a particular detonator would entail the disclosure of idiosyncratic design choices, not matters that are “*material to the advantages it is claimed the invention brings*”.¹⁴ In no respect was the

⁶ Boucher 1 [176], [178]; Napier 1 [288].

⁷ Boucher 1 [471], Napier 1 [548].

⁸ For the 079 Patent, see: Boucher 1 [176], Napier 1 [288]. For the 165 Patent, see: Boucher 1 [468], [471]. Mr Boucher’s view of the essence of the 165 Patent was narrower: Mr Boucher stated “*the essence of the invention is a combined detonator and booster that is capable of being controlled using wireless command signals*” at [471].

⁹ Being the items in 079 JER Q3e.

¹⁰ Skafidas 1 [48], [59]. Those are comments that apply equally in the context of the 165 Patent: see Skafidas 1 [65].

¹¹ T350.33-351.27; Skafidas 1 [28].

¹² Skafidas 1 [28].

¹³ Specifically, the no-fire voltage of the detonator. Mr Boucher agreed that “a designer would never rely on the no-fire and all-fire figures from detonator A if designing a system for detonator B”: T1099.33-45, [REDACTED].

¹⁴ *Servier* at [135].

invention of either patent directed towards improved VM means.

10. As for (ii) there is no principle that requires a patentee to disclose its commercial embodiment.

The cases recognise that a patentee's commercial choices may well be “*associated with its own particular circumstances rather than because it believes that they reflect the best method*”.¹⁵

The invention of the 079 and 165 Patents was to an architecture of features for an assembly or booster. The charge storage device that worked for one commercial detonator would not work for another,¹⁶ so would need to be tailored to the particular detonator choice made by someone making the assembly or booster. These choices, while relating to features without which the device would not function, were not matters of architecture with which the invention was concerned. The materiality of additional information about Orica's VM was very low. As Dyno's relevant expert, Mr Boucher, explained: “[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]”,¹⁷

11. **Principles.** In addition to the matters at DS [12]:

- (a) The “*correct lens*” through which the best method requirement must be viewed is “*identification of the invention*”: it is only once the invention is identified that allegations of a failure to disclose the best method can be understood.¹⁸ That is, the nature of the disclosure required depends on the nature of *the invention* itself.¹⁹
- (b) The proper approach for characterising the invention is not to look at selected passages of the specification,²⁰ or individual claims,²¹ in isolation. The invention is properly identified by looking to the whole of the specification.²² The invention is the embodiment which is described and around which the claims are drawn.²³
- (c) Once the invention is identified, the question of whether there has been adequate disclosure of the best method is a question of fact,²⁴ to be addressed in a practical and common sense

¹⁵ *GlaxoSmithKline Consumer Healthcare Investments (Ireland) (No 2) Limited v Generic Partners Pty Limited* [2018] FCAFC 71 at [201].

¹⁶ [REDACTED]

¹⁷ Boucher 1, Conf Ann CJB-27 [872].

¹⁸ *SARB* at [122], [123](3), (4), [125]-[128];

¹⁹ *SARB* at [123], citing *Sandvik* at [115(31)].

²⁰ *SARB* at [122].

²¹ *Zoetis Services LLC v Boehringer Ingelheim Animal Health USA Inc* [2024] FCAFC 145 at [30].

²² *Zoetis* at [30].

²³ J [543(1)] and the authorities there cited.

²⁴ *Zoetis* at [26].

manner. Every case will depend on its own facts, due to the nature of the invention, and the significance of what is or is not disclosed.²⁵

- (d) A patentee is not obliged to disclose information that is already known to the skilled addressee by way of the common general knowledge.²⁶ Whether a patentee is obliged to disclose information that may be obtained by routine experimentation is to be assessed by reference to: **(i)** the importance of the information *to the invention* in question; **(ii)** the practicality of disclosing it; and **(iii)** the extent of the burden imposed on the skilled addressee who is left to rely upon routine experimentation.²⁷

12. Despite the warning noted at [11(c)] above, at DS [13] Dyno attempts to shoehorn the facts of the present case into those of *Servier*, *Zoetis* and *Sandvik*. Perhaps because it was a decision where the best method attack failed, Dyno ignores *SARB Management Group Pty Ltd (t/as Database Consultants Australia) v Vehicle Monitoring Systems Pty Ltd* [2024] FCAFC 6, 176 IPR 391, a unanimous Full Court decision delivered nine months before *Zoetis*.²⁸ Central to the decision in *SARB* was the proper characterisation of the invention, and it provides the best factual analogy among the authorities. In that case:

- (a) The invention was characterised as a wake-up scheme, pertaining to a mechanism for identifying the overstay of a vehicle in a parking space involving the wireless transmission of data to a data collection apparatus. A transceiver was a vital part of the radio frequency communications component of the invention, without which it would not function. While the use of a transceiver was described in the specification, the specific transceiver known to the patentee before the priority date as having particular benefits was not disclosed.
- (b) The lack of best method attack was rejected by the primary judge and the Full Court. Their Honours held that, in circumstances where the invention is the wake-up scheme (and not a transceiver with particular features), the patentee had disclosed the best method known to it, notwithstanding that it had not disclosed a particular transceiver that had advantageous features.
- (c) Both the Full Court and the primary judge distinguished *Sandvik*, where the patentee failed to fully disclose all of the parameters of the sealing member, namely one that had upper and lower sections, and the design of an effective sealing mechanism was a real issue that

²⁵ *Generic Partners* at [187].

²⁶ *Generic Partners* at [186].

²⁷ *Generic Partners* at [192];

²⁸ The primary judge here was a member of the *Zoetis* and *SARB* Full Courts.

needed to be overcome by the inventors: see *Sandvik* at [118]-[122].

13. *Servier* was a very different case. There, the invention was the arginine salt of perindopril and the point of the invention was the storage ability of the compound: at [133]. That ability could vary with the form of the salt, such that the particular salt formation and the methodology to get that salt formation had more importance: at [133], see also [122]. Knowledge of a method providing a form of the salt with the characteristics exemplified in the patent so that it could be used in the active pharmaceutical ingredient in the tablets used in the stability studies described in the specification needed to be disclosed, but was not: [134].
14. So too are the facts of *Zoetis* distinguishable. In *Zoetis*, the invention properly characterised was to a single dose, combination vaccine that conferred immunity to viruses including *M hyo*: [31], [72]. The patentee disclosed a range of investigational vaccine product (IVPs) embodiments but, unlike this case, the disclosure was not adequate to enable the skilled addressee to make *any* of the IVPs: [59], [70]. The skilled addressee had to be told which antigen concentration to use and the patentee knew a particular (but undisclosed) IVP antigen concentration was more efficacious than the others: [70].
15. There is no challenge to the correctness of *SARB*. It is authority for the proposition that omission of advantageous information about a feature an essential part of the operation of the invention as claimed does not necessarily offend the best method obligation.
16. ***The 079 Patent***. At DS [15]-[16], Dyno selects aspects of the 079 specification relating to safety at pages 1, 2, 4 and 5 of the Patent; and at DS [19] Dyno selects aspects on pages 16, 18 and 19 said to demonstrate the “*centrality of the VM means*” to the invention. Dyno also focuses on the “charge storage device” integer of claim 1 at DS [19]. Dyno’s summary culminates in the submission at DS [26] that her Honour erred in characterising the invention because her Honour “*failed to find that the VM means and the manner in which it prevents inadvertent activation is central to the inventions*” and contributes to their stated (safety) advantages. The notional of “centrality” should be approached with caution. If, as appears from DS, it intended to refer to any feature that is an essential part of the operation of the invention, it asks the wrong question, as the facts in *SARB* demonstrate.
17. Further, Dyno ignores much of the specification and the claims, contrary to the principles at [11(b)]. A fair reading of the specification and claims demonstrates that the advantages of the 079 Patent arise from the architecture of assembly working as an integrated system, rather than any particular VM means. For example:
 - (a) DS [15]: As to (p 1.4), the stated field of the invention is firstly to “*wireless detonator*

assemblies, and methods of blasting employing such assemblies". The invention also relates to "*detonator assemblies that are substantially free of physical connections with an associated blasting machine*", and improvements in safety. The improvements in safety are not addressed to VM means.

(b) DS [15]: As well as the passages of the background at (pp 2.26-3.9) to which Dyno refers, there is also the passage at (p 2.3-13) concerning the advantages of "*wireless detonator systems offer[ing] the potential for circumventing*" the problems of loss of communication and the use of wires in traditional blasting systems, "*thereby improving safety at the blast site*". In that way, the safety improvement is connected to the wirelessness of the device, not particular VM means.

(c) DS [16]-[17]: In the Summary of the invention (p 4ff), the risk of inadvertent detonation is achieved by the interoperation of components (not solely the VM means). The components are the power source (with sub-threshold voltage), the base charge, and the use of a charge storage device functioning as a VM. The patent is not, and need not be, concerned with the CGK information of *how* the VM capability works within the charge storage device, just that it perform a VM function. The various types of VMs were CGK: J [224]-[226].

(d) DS [18]: Dyno refers only to the definitions of "charge/charging" and "charge storage device", but not to other defined aspects of the assembly (such as the "base charge", "active power source", "passive power source" and "power supply", "blasting machine", "keep alive signal" and so on). These defined components are also integers of the wireless detonator assemblies of the claims. The invention is to the assembly and interoperability of those features, not particular VM means.

(e) DS [19]: Dyno refers to passages at (p 16-19) of the Detailed Description said to "*confirm the centrality of the VM means*". But the references to safety issues at p 16 are not solely attributed to VM means at all: as p 16 sets out, "*the wireless detonator assembly of the present invention utilises a **combination of components** to provide a way to substantially avoid inadvertent detonator actuation*".

(f) That the advantages of the Patent are achieved by the assembly operating as a system is also apparent from the further pages of the Detailed Description, and the Figures.

18. **The 165 Patent.** Dyno's summary of the 165 Patent at DS [20]-[21] and [23]-[24] is likewise a description of the architecture of the "*wireless electronic booster*". The booster assembly involves the interoperation of the detonator (firing circuit and base charge), explosive charge and transceiver. In one embodiment, the transceiver comprises signal receiving/processing

means, a charge storage device and power source: together, these components interoperate by the power source charging the charge storage device, which discharges when the FIRE signal is processed. At DS [22] and [25] Dyno focuses on the definition and claim integer concerning the “charge storage device”, but does not take into account any of the other definitions of the 165 Patent including e.g. “booster”, “transceiver”, “logger” which are also integers of the claims. In so doing, Dyno ignores the fact the invention is in reality directed to the architecture and system of the wireless electronic booster.

19. ***Impact on the best method conclusion.*** Dyno contends that it is dispositive of the appeal that her Honour failed to find that the “*VM means and the manner in which it prevents inadvertent detonation actuation*” is central to the inventions of the 079 and 165 Patents: DS [26]. However, for the reasons above, this is the wrong question. The primary judge took the VM means into account when considering the appropriate characterisation of the invention, and correctly identified that the specifications as a whole were not directed to them: J [577]-[579].

A.2 BEST METHOD (ANOA [1])

20. It is convenient to briefly address the way in which Dyno’s case *was* pleaded, before turning to the particular ways in which Dyno alleges her Honour erred in determining it. Against the background of 6FASOC [160], [161] and [169], [170] pleaded that each of the 079 and 165 Patents does not describe how to make devices so as to obtain the ‘alleged benefits’ of each of the alleged invention.
21. In the context of the earlier paragraphs, the ‘alleged benefits’ of 6FASOC [170] can only be understood as a reference to the VM means by which the charge storage device is capable of supplying supra-level voltage when supplied with sub-level voltage, so as to avoid the risk of inadvertent actuation. This is the way her Honour’s findings — that Dyno’s written opening submissions “*aligned substantially*” with its pleadings (J [569]) and were “*confined to the alleged failure to disclose the VM means*” (J [570]) — should be understood.
22. Importantly, her Honour did not consider that Dyno’s case in opening ‘substantially aligned with the pleadings’ insofar as it extended to accessorial aspects of the VM means, for example the alleged failure to disclose the way the VM means was “*controlled*” *cf* DS [29], [32]. Her Honour dealt with the issue of the ‘control’ of the VM means in the context of Dyno’s unpleaded case: J [586]-[587]. Dyno’s case in closing about the ‘control’ of the VM means was correctly foreclosed by her Honour, for the reasons developed in Section A.3 below. For that reason, the subparagraphs to ANoA 1.6(A),(B),(D) are not properly dealt with under Ground 1 of this appeal. They certainly cannot be said to have been part of the pleaded case or

even the case opened upon. None of those matters was mentioned.

23. Turning back to the pleading, the second aspect (6FASOC [171]) is said to be “further or in the alternative” to [170] and relies on the same antecedent paragraphs in the pleading²⁹, and for that reason cannot materially add to the allegation at 6FASOC [170], namely reliance on lack of disclosure of the VM means.
24. **Construction, characterisation of inventions.** Contrary to DS [33], Dyno’s case in opening was premised on an incorrect construction of “charge storage device”. While Dyno advanced in its closing submissions a version of the “no working embodiment case” that took into account the construction that her Honour upheld, it was not a case which Dyno pleaded or opened upon, which is the subject of ANoA [1].
25. This can be seen from the pleadings and the opening submissions. Dyno’s pleaded case at 6FASOC [161(c)-(d)] was premised on the charge storage device being “*capacitor, diode, rechargeable battery or activatable battery*”, which construction her Honour rejected: J [275], [279]-[280]. This construction was the central plank to Dyno’s best method case as opened, as seen from Dyno’s opening written submissions on validity (**DTSV**), where it submitted that “*charge storage devices such as capacitors are distinct from VM means*”: DTSV [23]. Dyno’s contention was that separate VM means were not disclosed. Orica’s construction, accepted and applied by the primary judge — that the charge storage device *contained* the VM means — is a complete answer to this.
26. DS [34] relates to Particular 1.5 of the ANoA, where Dyno contends the primary judge failed to have adequate regard to the teachings as to “safety” in the 079 and 165 Patents. However, her Honour squarely confronted this at J [577]-[578]. In particular, her Honour found that the “improvements in safety” were reflected in the architecture of components at the heart of the inventions of the 079 Patent: J [577]. Not only was this correct on a plain reading of the specification, it was consistent with the evidence summarised in paragraph 7 above.
27. Dyno also submits that her Honour made a factual error at J [577] because the risk of inadvertent detonation was not ‘eliminated’ by the “architecture” of features, and a further safety measure ([REDACTED]) was required: DS [34]. There are 3 problems with this submission. **(1)** her Honour was addressing the “improvements in safety” as described in the 079 Patent. **(2)** Dyno’s submission relies on a passage of cross examination culminating in the proposition put by Dyno’s counsel that the 079 Patent did *not*

²⁹ plus 6FASOC [162] (alleging that Orica knew that the representations in [161] were false).

describe a system requiring [REDACTED], with which the witness agreed. (3) It can hardly be said her Honour erred in characterising the invention of the 079 Patent by failing to take into account a safety measure that the Patent did not disclose. Still less does it follow that the absence of that additional measure demonstrates the safety improvement described in the 079 Patent was not achieved.

28. The final sentence of DS [34] misrepresents the evidence. The evidence of Prof Skafidis culminating at T1080.45 simply reflected the fact that the internal Orica document put to him (as opposed to the patent specifications) **defined** inherent safety as “[REDACTED]”. It is utterly irrelevant to any issue of the characterisation of the inventions in the patents. Mr Papillon’s evidence at T532.4 was in response to an assumption about a configuration based on Fig 3 of the 079 Patent, in which the charge storage device was assumed to be only a capacitor (therefore lacking VM functionality and thus an assumption contrary to the construction findings at J [275]-[281]). Mr Papillon was also asked to assume that additional componentry was added (although not shown or described in the specification). Mr Papillon accepted on those (invalid) assumptions, there would be “an extra level of safety”. That is not saying the additional componentry was necessary to avoid the risk of inadvertent actuation, and that evidence cannot bear on the proper characterisation of the invention actually disclosed in the specification.
29. As for the 165 Patent, the primary judge’s reasoning at J [578] reveals that her Honour appropriately considered the references to safety. Dyno relied in its opening submissions on pp 12.18-13.2, but this passage does not assist Dyno. It makes plain that the “*safety of the overall system is improved*” because of “*features*” that avoid the inadvertent use of communications power, as well as avoiding “*the need to establish and lay a multitude of wireless connections*”. The specification continues that the wireless blasting system thus “*circumvent[s] the need for complex wiring*” (p 13.3-5). On that view, it is plain that the safety considerations in the 165 Patent lay with the booster’s wirelessness and combination of the features as a whole – not particular VM means, *cf* DS [35].
30. Contrary to DS [35], Dyno did not establish at trial that particular VM means was material to the advantages of the assemblies of the invention. To the contrary, what worked for one commercial detonator would not necessarily work for another.³⁰
31. **Relevance of CGK or choice of components.** As to DS [36], her Honour was correct to find that the VM means of the Orica documents were matters of CGK. In light of the proper

³⁰ [REDACTED]

be drawn from the fact one of Orica’s witnesses (Mr Papillon) did not address Mr Boucher’s best method evidence, when its other witness (Prof Skafidas) did.³²

A.3 BEST METHOD (CASE IN CLOSING SUBMISSIONS) (ANOVA [2]-[3])

36. Orica relies on the exchange in Dyno’s oral closing submissions at [REDACTED], by reference to DTSV [67]. The exchange continued at [REDACTED], where Dyno confirmed that its closing submissions ‘was’ its case on best method, and that Conf Ann CJB-27 and CJB-26 contained aspects of the material facts to 6FASOC [171].
37. It is noteworthy Dyno does not refer to any pleadings in DS [44]. That is not surprising, because Dyno’s case was materially different to the pleading. Dyno alleged in closing that Orica was required to “disclose all aspects of the Orica embodiment...that contribute to safety”, including the “central” feature of “[REDACTED]” — bringing in notions of both control and separate functionality — as well as other features identified by Mr Boucher that “went to safety, [REDACTED] [REDACTED]”.³³ These matters were not pleaded nor opened upon.
38. The fact Orica filed evidence in answer to the case it understood it had to meet says nothing of whether it was appropriately informed of Dyno’s case, articulated for the first time in closing submissions *cf* DS [44]. In *Australian Building and Construction Commissioner v Hall* [2018] FCAFC 83, the Full Court at [50] articulated the problem with a party making significant additions to, or departing from, its pleaded case in closing submissions, and deprecated the submission that their opponent’s failure to object meant they acquiesced to a case run against them in that way.
39. It is not sufficient for Dyno to point to the fact there was evidence amongst the annexures particularised in its pleading to support the case it articulated in closing submissions. The conduct of a case in that way prejudices the opposing party in its preparation for trial, and does not adequately inform the court of the boundaries of the dispute.³⁴ It cannot be said that Orica acceded to a widening of the case pleaded against it.³⁵
40. Orica’s submissions above as to the proper characterisation of the invention, and the nature of the information said to be omitted are dispositive of the complaints at DS [45]-[48].

³² See too *Abbey Laboratories Pty Ltd v Virbac (Australia) Pty Ltd (No 3)* [2025] FCA 1179 at [218].

³³ [REDACTED]

³⁴ [REDACTED]

³⁵ *Dare v Pulham* (1982) 148 CLR 658 at 664.

B. 873 PATENT

B.1 Overview and construction issues (ANoA [4]-[5], [11])

41. *Construction of “wireless initiation device”*. As to DS [51]-[53], the primary judge did not err in making a finding that differed from the experts’ opinions. Construction is a matter for the Court.³⁶ And that is particularly so when an expert gives an opinion with reasoning that is sparse or with which the Court does not agree (as her Honour said at J [828]). The primary judge, in considering the meaning of “WID”, was not bound to stop at that definition, and did not err in considering other definitions and passages in the 873 Patent (indeed, Dyno urges this Court to consider other parts of the 873 Patent that it says support its construction). Her Honour’s reasoning at J [824]-[855], and particularly J [835]-[836], properly takes into account the whole of the 873 Patent. In particular, her Honour was correct to take into account the definition of “wireless”. There is no indication that the patentee intended “wireless” in “WID” to mean something different from what it meant in the rest of the 873 Patent. The two definitions operate together (see J [835(1)]).
42. This is the definition of “wireless”: “-refers to there being no physical connections (such as electrical wires, shock tubes, LEDC, or optical cables) connecting the detonator of the invention or components thereof to an associated blasting machine or power source.” Thus, wirelessness in the 873 Patent is concerned with “the detonator of the invention”. “Wireless initiation device” makes no sense if it does not incorporate a detonator. And that must be right, because if “wireless initiation device” does not include a detonator, then the detonator of the invention could be wired. That does not make sense. Wireless communication with detonators is at the heart of the 873 Patent (J [830]-[833]). If Dyno’s construction were preferred, the questions at J [835] would remain unanswered. As to Dyno’s submission about the definition of “Wireless electronic delay detonator” at DS [53], the primary judge was correct to give that no weight on the basis that the term was not actually used in the 873 Patent.
43. The primary judge also did not err in considering the definition of “blasting machine”. The definition of “wireless” assumes the existence of an “associated blasting machine”. And the detailed description of the invention (p 13) provides that “these methods may be applied to wireless blasting systems wherein the devices or boosters communicate with one or more control units (i.e. **blasting machines**) via wireless communication at a blast site. The methods may be applied to blasting systems that employ any type of wireless **electronic** device for blasting, but will

³⁶ *Fei Yu t/as Jewels 4 Pools v Beadcrete Pty Ltd* (2014) 107 IPR 516; [2014] FCAFC 117 at [31]. See also at [27], where one of the (unsuccessful) grounds of appeal was that the primary judge’s construction was inconsistent with the evidence of the respondent’s expert.

be described herein with reference to wireless initiation devices and wireless electronic boosters” (emphasis added). Her Honour reasoned, correctly, that the only source of wireless signals disclosed in the 873 Patent was a blasting machine; thus, because a blasting machine is defined as being capable of communicating with EDs (which means it can communicate only with EDs: J [243]-[245] and [873]-[874]), the WID must include an ED (J [835(2)]).³⁷

44. **Construction of “wireless electronic booster”.** As to DS [54]-[56], the WID of claim 1 forms part of the WEB of claim 15. According to claim 15, the WEB must include a WID, and an integral explosive charge. In order to actuate the integral explosive charge, it must have a detonator. That is the WID.³⁸ And for the reasons given above and as found by the primary judge, the WID must be an ED. As to DS [56], her Honour did not err in making the finding at J [888]. To the extent that the primary judge relied on Mr Jacobson’s evidence,³⁹ her Honour was entitled to do so. The transcript to which Dyno refers demonstrates that Rothenbuhler Engineering did not design or modify detonators, and did not form part of the products that Rothenbuhler Engineering sold (they were incorporated subsequently). In his affidavit evidence, Mr Jacobson gave extensive evidence about various ways of incorporating detonators in remote blasting systems.⁴⁰ He plainly had relevant expertise as to how detonators interacted with complementary equipment. His evidence at T1370-1375 was careful and considered, and given in response to questions directed to his understanding of claim 15 having regard to the specification as a whole. In contrast, Mr Papillon’s evidence at T1337.9-17 was a short response to a question about the defined term “WEB” viewed in isolation. Her Honour was entitled not to accept that evidence in those circumstances.

45. **Whether limited to EDs.** DS [57]-[59] set up a false issue. There, Dyno submits that the primary judge erred by simply applying her reasoning from the 079/165 Patents to the 873 Patent because the 079/165 Patents refer to a WDA, not a WID, and the definition of WID does not refer to a blasting machine. But that does not affect the reasoning, because, for the reasons given above, the definition of “wireless” in the 873 Patent necessarily feeds into the definition of “WID”, so the reader ends up at “blasting machine” anyway. And for the reasons given above, the 873 Patent is not “agnostic” about the type of detonator (*cf* DS [59]). The primary judge did not err in finding at J [854] that it requires an ED.

B.2 Novelty (ANoA [4])

46. **Attempt to re-enliven abandoned argument.** Dyno now says at DS [64] that Rothenbuhler

³⁷ See also Papillon 4, [59]-[62].

³⁸ Jacobson XXN T1374.1-21.

³⁹ T1374.10-1375.16.

⁴⁰ Eg, Jacobson 1 [32](j), [71], [74], [78](i), [102].

discloses a WID by reason of the remote unit alone. It abandoned that argument in closing submissions (T1845.4-7). It is too late to re-enliven it now. As Barwick CJ said in *Port Jackson Stevedores Pty Ltd v Salmond & Spraggon (Aust) Pty Ltd (The New York Star)* (1978) 18 ALR 333 at 342, “it should only be in the clearest case and for the most cogent reasons that a party who has conceded a matter at trial should be allowed to make the validity of what has been conceded the basis for overturning the result of the trial”. Orica would suffer prejudice if the point is run now, because it has lost the opportunity to address the primary judge on it orally. Further, this is not, as Dyno says, “an issue of construction of the 873 Patent”. That would be to construe a patent in suit with an eye to the prior art. It is an issue of whether the 873 Patent is anticipated by Rothenbuhler. The submissions below deal with this new argument under cover of this objection.

47. Dyno appears to accept at DS [64] that in order for it to succeed on the remote unit alone, it needs to persuade the Court that the primary judge erred in deciding that the WID needs to include a detonator (or needs to itself initiate the explosive materials, which is the same question: J [851]-[852]). Her Honour did not err on that point, for the reasons given above.
48. There are two other reasons why neither the remote unit on its own, not the remote together with the detonator, are a WID within the meaning of the 873 Patent. *First*, neither is wireless (J [901]; *cf* DS [66]), because the definition of “wireless” in the 873 Patent requires that there be no wires or other physical connection between the detonator and its power source or blasting machine. In Rothenbuhler, the remote unit is connected by wire or shock tube to the detonator, and power flows down the wire or shock tube from the remote unit to the detonator.⁴¹ *Secondly*, Rothenbuhler discloses use of the device only with electric or shock tube detonators (see page 4 lines 19-20), not with EDs (J [904]) as the 873 Patent requires (see [43], [45] above; *cf* DS [68]).
49. Contrary to DS [67], the primary judge did not err in relying on evidence about whether the device disclosed in Rothenbuhler was properly characterised as a two-part blasting machine (or remote-control blasting machine) (J [902]-[905]). That was relevant because the definition of “wireless” requires there to be no connections between the detonator and the blasting machine or power source. For that reason, her Honour needed to consider what Rothenbuhler disclosed as being the blasting machine. It was part of her Honour’s consideration of whether Rothenbuhler disclosed a WID (see particularly the last sentence of J [905], and J [845]).
50. **Claim 2.** The primary judge did not err at J [919]-[921] in the way Dyno suggests at DS [69]. Claim 2 includes the term “group identification component”, which is defined as part of a signal

⁴¹ Papillon 6 [96](a), citing Rothenbuhler Patent p 3.6-8 and Figures 1C, 2B, and 3A and 937, 939 and 940; Ann BEP-32 integer 1.1, citing Rothenbuhler Patent p 12.24-26; T1351.38-1352.12.

generated and transmitted by a “blasting machine” (p 6 lines 21-22). In order to consider that definition, her Honour turned to the definition of “blasting machine”. That was orthodox. It does not matter that the claims do not refer to a blasting machine (*Décor Corporation Pty Ltd v Dart Industries Inc* (1988) 13 IPR 385 at 410).⁴² The drafter of the 873 Patent indicated, by defining the term “blasting machine” and then using it two pages later in the definition of “group identification component”, that he or she intended that term to have a particular meaning (*Décor* at 410-411). Dyno approbates this principle where it sees it to be helpful (see DS [51]), but reprobates it where it is not (DS [70]). The “DEFINITIONS” are provided to “assist an understanding of the present invention”⁴³. They are not said to apply only to claim language. Absent very clear contextual justification, the skilled reader would read defined terms consistently throughout the specification in the manner in which they were defined. Dyno does not give a proper reason why the primary judge should have rejected or ignored the definition of “blasting machine”. The primary judge, correctly, read the claims of the 873 Patent in light of the specification as a whole, including the definitions. Although Dyno says a definition should not be applied “where the context indicates otherwise” (DS [70]), it does not point to any particular matter of context that it says indicates otherwise.

51. Dyno has not pointed to a case where an impermissible “gloss” derives from the patentee’s own dictionary in the body of the specification. As for the authorities at DS [70], this issue of construction is factually very different to those cases. Orica’s construction does not seek to downplay express, narrowing claim language by reference to a broader description in the specification (*cf Kimberley Clark*), nor import a term from a ‘glossary’ of explanations where to do so renders claim language meaningless and incoherent (*cf Memcor*). As for *Gambro* at [116], Allsop J was clearly contemplating that if “*a dictionary has been created*” by the patentee, it may be that *is* the meaning to be applied across the specification, consistently with *Décor*, and see the immediately preceding paragraph above about context. The cited passage of *Lockwood (No 1)* pertains to ascertaining the “real disclosure” of a specification for a s 40(3) fair basis analysis (which entails a comparison of the specification and the claims), not a claim construction analysis – but Orica rejects any suggestion that her Honour relied upon ‘loose or stray remarks’ in any event.

52. It is a matter of some significance, not a “loose or stray remark” (DS [70]), that the definition of “blasting machine” is confined to EDs. It was CGK that the signals sent by a blasting machine

⁴² See also *Eli Lilly and Co Ltd v Apotex Pty Ltd* [2013] FCA 214, 100 IOPR 451 at [152]-[154] and the cases there cited.

⁴³ 873 Patent, p 4.5-6.

configured to work with EDs are different from the signals sent by a blasting machine configured to work with electric or non-electric (shock tube) detonators (J [118]-[121]). A blasting machine that works with EDs will not work with electric or non-electric detonators (J [243]-[245] and [873]-[874], referring to the evidence of Mr Papillon). Dyno appears to accept that Rothenbuhler does not disclose EDs. Accordingly, there is no blasting machine with the meaning of the 873 Patent – and so the primary judge did not err in finding there was nothing meeting the definition of “group identification component”.⁴⁴ It follows that there is no control circuit for comparing the group identification component with a stored group identification (J [920]);⁴⁵ and that there are no wireless command signals (J [922]).⁴⁶

53. **Claims 3, 4, 6, 11, and 16.** Dyno says the primary judge erred by finding that these claims were not anticipated by Rothenbuhler, for the same reasons it gives for claims 1 and 2. But claims 4 and 6 had other integers that were not disclosed in Rothenbuhler, and Dyno has not attempted to demonstrate that they are all disclosed. The primary judge did not make any such findings. The primary judge found that for claim 4, there was no disclosure of a “stored group identification”, because there was no disclosure of a memory (J [932]); and for claim 6, that there was no disclosure of “programming each [WID] with group identification” (J [936]). Those findings are not the subject of any challenge in this appeal, so Dyno cannot succeed in relation to those claims.

B.3 Inventive Step (ANoA [5])

54. As to DS [72], Orica repeats its submissions above about the alleged construction errors. But even if this Court were to accept Dyno’s argument on construction, that would not demonstrate the obviousness of the claims (and, indeed, Dyno has only addressed claims 1 and 2).⁴⁷ The apparent agreement in the 873 JER as to claims 1 and 2 needs to be considered against the finding at J [965]. The correctness of this finding is addressed below. It does not turn on a question of construction.

55. There was no agreement at trial between the parties as to the fate of the dependent claims.⁴⁸ Further, putting aside the construction issues, there was disagreement in the 873 JER about whether the integers of claims 13-15 were CGK.⁴⁹ Claim 13, for instance, requires the further step of a WID “deactivating or shutting down” once it determines it is not a target WID. The experts did not agree that was CGK. As to the assertion that integer was not “*sufficient to confer an*

⁴⁴ Papillon 6 Ann BEP-32 integer 2.2.

⁴⁵ Papillon 6 Ann BEP-32 integers 2.2 and 2.5; Papillon 6 [185(c)].

⁴⁶ Papillon 6 [156].

⁴⁷ Dyno opened on the basis that the features of claims 1 and 2 (only) were CGK (T59.11-15).

⁴⁸ Orica relied on Mr Papillon’s 6th affidavit in maintaining the inventiveness of all claims.

⁴⁹ 873 JER, Topic 23.

inventive step”, the experts gave evidence at trial to the contrary, namely that deactivation would *not* usually occur. A receiver would have to remain “on” to receive communications, even if other parts “went to sleep” to save battery.⁵⁰ It could hardly be said it was not inventive to “*de-activate or shut down*” the whole of a WID upon receipt of a signal if the prevailing practice was that the receivers remained “on”. Dyno does not address claims 14 or 15. Further as to claim 15, Dyno must overcome the finding at J [970]. It does not attempt to do so.

56. As to DS [73], Dyno’s argument is that her Honour ought to have found the Rothenbuhler “**1670 model**” was CGK by reason of this meandering logic: **(1)** the experts reached agreement on Topic [3(e)] of the 873 JER; **(2)** Topic [3(e)] cross-referred to general agreement about Jacobson 1 [27]-[33]; **(3)** Jacobson 1 [27]-[33] is a “summary of the 1670 model”; **(4)** thus, the 1670 model was CGK; **(5)** that device includes a detonator, so there is a WID even on the primary judge’s construction. There are two problems with this: **(4)** is a non-sequitur, and **(3)** is wrong, because Mr Jacobson was traversing a whole range of “RFD” products at [27]-[33]. The fact one paragraph ([32(d)]) cross-refers to another paragraph that makes passing reference to the 1670 model ([96]) does not transform the balance of Jacobson 1 [27]-[33] into a “summary of the 1670 model” that is CGK.
57. In any case, there were many good reasons why her Honour correctly found the “1670 model” was **not** CGK. *First*, the key evidence that Dyno called about Rothenbuhler devices generally was through Mr Jacobson, Rothenbuhler’s Chief Engineer and a named inventor of the Rothenbuhler patent. His inventiveness and unique, detailed knowledge of Rothenbuhler devices meant he was in no way representative of the PSA: J [769]. *Secondly*, there was no direct evidence of the use or sale of the “1670 model” in Australia. *Thirdly*, an adverse inference is readily drawn from Mr Jacobson’s failure to give that evidence, given he had access to Rothenbuhler’s books and records.⁵¹ Her Honour correctly drew that inference at J [199]. His affidavit evidence about use of Rothenbuhler devices in Australia was otherwise vague and contradictory: J [198], [200]. *Fourthly*, Dyno’s Australian witness (Mr Napier) had never seen a Rothenbuhler remote firing device in Australia before 2009,⁵² and as her Honour recorded, his affidavit evidence about Rothenbuhler devices generally was based on materials given to him by the lawyers: J [66]. There was no evidentiary basis for her Honour to find the “1670 model” was CGK. Her Honour was compelled to find that it was not.

⁵⁰ T1240.36-1241.45, 1242.42-1243.29.

⁵¹ T1262.20-21.

⁵² T1253.8-22.

C. 943 PATENT: MANNER OF MANUFACTURE

C.1 The invention claimed in the 943 Patent is a manner of new manufacture

58. The 943 Patent discloses an entirely new method of blasting in underground mining: J [1233]-[1236]. That method “*would have been incomprehensible*” and “*counterintuitive*” at the priority date of the 943 Patent (29 September 2009): J [1267], [1270]. Dyno nevertheless contend that the requisite “*minimal level of ‘newness’ and ‘inventiveness’*”⁵³ to constitute an invention is absent on the face of the specification: ANoA, [6], DS [81]-[92].

59. This exclusion to patentability arises: “[I]f a Patentee, though entirely erroneously, does state by way of what I may call recital in his Specification that a particular form of thing is common and then by some oversight or some mistake claims a monopoly in that particular form of thing...”,⁵⁴ such as:

“...if [the claimed invention] is simply the application of well-known and well-understood things to an analogous use, although it may be true that it is accompanied by advantages not thought of or practised before, that will not save him from the fatal objection that there is no invention; because it is then simply the application of well-known things to an analogous use, of which a great many instances might be given.”⁵⁵

60. The relevant question is whether it is “*apparent on the face of the specification, when properly construed and understood, that a subject process was (for example) nothing more than a new use of an old product*”⁵⁶ (emphasis added). The archetype example being, where stainless steel and its properties were well-known, “*it would not be possible for a man to claim a monopoly for making kitchen sinks of stainless steel merely because he was the first man who ever thought of doing this*”.⁵⁷

61. Dyno improperly seeks to elevate this “*low*” threshold⁵⁸ to something far more demanding, namely, that the incorporation by reference in the 943 specification by the patentee of its own

⁵³ *Aristocrat Technologies Australia Pty Ltd v Commissioner of Patents* (2022) 274 CLR 115, 158 [108], [111] (Gordon, Edelman and Steward JJ).

⁵⁴ *Lockwood Security Products Pty Ltd v Doric Products Pty Ltd (No.2)* (2007) 235 CLR 173 (*Lockwood No. 2*) 211, citing Clauson J in *Chapman and Cook and Lectro Linx Ltd v Deltavis Ltd* (1930) 47 RPC 163 at 173.

⁵⁵ *Morgan & Co v Windover & Co* (1890) 7 RPC 131; cited with approval in *Merck & Co Inc v Arrow Pharmaceuticals Ltd* (2006) 154 FCR 31, 53-54, [67]-[75].

⁵⁶ *NV Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655, 662-663; see also *Commissioner of Patents v Microcell Ltd* (1959) 102 CLR 232, 249-215; see also 6FASOC, [104].

⁵⁷ *Microcell*, 248.

⁵⁸ *Aristocrat*, 158, [111] (Gordon, Edelman and Steward JJ).

unfiled and unpublished patent application (**WO 837**)⁵⁹, in and of itself, amounts to an admission that the content of WO 837 is “*known*” at the priority date of the 943 Patent for the purpose of assessing the threshold requirement: ANoA [6.1], [6.2]; DS [88].

62. The primary judge correctly rejected that argument: **J** [1193]-[1197]. It finds no support in authority or the Act. The same argument was explicitly rejected with respect to *published* patent applications in ***Sanofi-Aventis Australia Pty Ltd and Others v Apotex Pty Ltd*** (No 3) (2011) 196 FCR 1 (Jagot J);⁶⁰ and ***InterPharma Pty Ltd v Hospira, Inc*** (No 5) (2019) 149 IPR 182;⁶¹ and is inconsistent with the decision in ***Otsuka Pharmaceutical Co Ltd v Generic Health Pty Ltd*** (No 4) (2015) 113 IPR 191 (***Otsuka FCA***). In ***Otsuka FCA***, Yates J rejected an argument that a prior published patent incorporated by reference in the patent there in suit amounted to an admission that the prior patent and information derived from it was CGK for the purpose of assessing the manner of manufacture.⁶²
63. As ***Otsuka FCA*** demonstrates, it is necessary to pay close attention to the terms of the specification in which it is alleged “*admissions*” have been made.⁶³ References to earlier publications in a patent specification do not amount, without more, to an admission the information the subject of those publications had become part of the CGK in Australia.⁶⁴
64. The decision of the Full Court in ***Merck & Co Inc v Arrow Pharmaceuticals Ltd*** (2006) 154 FCR 31 does not stand for any different proposition. The patent there in suit related to a method for treating osteoporosis comprising administering a drug once a week on a continuous schedule.⁶⁵ Under the heading “*Background of the Invention*” the patent disclosed that: it was known that a salt of alendronate was effective in treating osteoporosis (caused by bone resorption); it was known that it could be administered in various amounts at various time intervals; US Patent No 5,366,956 (***Strein***) taught oral administration on an intermittent dosing schedule; and PCT Application Number WO 95/30421 (***Goodship***), disclosed a once-weekly dosing schedule to minimise bone resorption around an implant.⁶⁶ Each of Strein and Goodship

⁵⁹ WO 837 was filed and published, on respectively 11 January 2010 and 5 August 2010, *after* the priority date of the 943 Patent, being, 29 September 2009. WO 837 was not in evidence below. Reference herein is to the same text in the 873 patent.

⁶⁰ At 66, [232]; see also [207], [208]. European Patent 13,376 (the equivalent of the 341 patent: [94]) disclosed leflunomide, for the treatment of “*rheumatic complaints*”; findings not disturbed on appeal: ***Apotex Pty Ltd v Sanofi-Aventis Australia Pty Ltd*** (No 2) (2012) 204 FCR 494, 538, [195], [196].

⁶¹ At 282, [468] and 283, [473].

⁶² See at 255, [359] to 256 [362]; this issue was not considered on appeal.

⁶³ ***Insta Image Pty Ltd v KD Kanopy Australasia Pty Ltd*** (2008) 239 FCR 117, 135, [97]-[98]; citing ***Lockwood No. 2***, 210, [105]-212, [109].

⁶⁴ ***Insta Image*** at 135, [99]- 136, [104]; ***Otsuka***, 256, [364]-[368].

⁶⁵ At 36, [13].

⁶⁶ At 40, [27].

were incorporated by reference as part of that background.⁶⁷ The patentee then concluded:⁶⁸ “*It is seen from the current teachings that both daily and cyclic treatment regimens have shortcomings, and that there is a need for development of a dosing regimen to overcome these shortcomings.*”

65. Against that background, the Full Court concluded:⁶⁹

At the most, it might be said, in the words of the Lord Chancellor in Windover, that Merck, by applying well-known and well-understood things to an analogous case, achieved advantages not previously thought of or practised. However this may be too generous, given Strein and Goodship. The claims in the patent are analogous to the use of alendronate as taught in those documents...

66. It does not appear to have been in issue that the “*current teaching*” as to the earlier published dosage regimens in Strein and Goodship were well-known and well-understood: J [1196].⁷⁰ Merck is not, therefore, authority for principle that any document incorporated by reference is admitted to be “*known*” for the purpose of determining whether or not there is a manner of manufacture: J [1197]; cf DS 88.

67. Similarly, incorporation by reference of “*the Poulsen priority application*” in the patent in suit in *Danisco A/S and Another v Novozymes A/S and Another* (No 2) (2011) 91 IPR 209 (*Novozyymes FCA*) was not, in and of itself, sufficient, where Bennett J concluded:⁷¹

“It is true that the properties of the Poulsen enzyme and its ability to act on the different substrates were disclosed in the Poulsen priority application. However, there was no relevant discussion in that document of the advantages or disadvantages of those properties such that it could be said that it was well-known or well-understood, nor can it be said that it constituted an analogous use...”

68. Below, Dyno appeared to accept that for the purpose of this ground of invalidity it must establish the relevant matters were, on the face of the 943 Patent, “*well known and well-understood*”⁷² or “*common*”⁷³: J [1194]; T1873.34-1874.40. This is the standard on the

⁶⁷ At 40, [27].

⁶⁸ At 42, [28].

⁶⁹ At 54, [75].

⁷⁰ See at 54, [74]; Merck instead contended that the patent there in suit disclosed a new characteristic of the drug.

⁷¹ At [372]; if *Novozyymes FCA* is (contrary to Orica’s contention) authority for the proposition that incorporation by reference of an unpublished document is, in and of itself, an admission that document was relevantly “*known*”, it is inconsistent with *Sanofi FCA*, *InterPharma* and *Otsuka FCA* and with the treatment of admissions in *Lockwood No.2* and *Insta Image* and should not be followed.

⁷² DCS4, [105]. See also, e.g., *Bristol-Myers Squibb Co v FH Faulding & Co Ltd* (2000) 97 FCR 524, 534-535.

⁷³ DCS4, [106].

authorities and Dyno cannot now eschew it: *cf* DS [85].

69. In any event, the primary judge correctly found “*known*” requires more than something which was “*known*” only to the patentee: J [1193]. A reference to a patentee’s unpublished invention (an “*advance in the art*” known to it) by reference to its unfiled and unpublished patent application could do no more than describe (and could admit no more than) the patentee’s personal knowledge of that unpublished invention at the 943 priority date. This is far removed from the facts and circumstances in *Microcell*, *Phillips* or *Merck*.

70. Further, the notion that WO 837 is admitted by the patentee to be “*known*” is explicitly *contradicted* by the patentee: **first**, the patentee identifies it is an unpublished invention at the relevant date by reference to the publication date of the corresponding US application: J [1199]; **secondly**, the patentee draws a contrast between the method for selective control of detonators disclosed in WO 837 (which method is not stated to be “*known*”) and “*other examples of such selective control methods and apparatuses that are known in the art*” (emphasis added): J [1200]-[1202];⁷⁴. Here, the proper characterisation of the terms of incorporation is that the 943 Patent is “*not limited*” to the particular selective control methods in WO 837; not that WO 837 was “*known*” in full or in any manner relevant to this appeal;⁷⁵ **thirdly**, the patentee explicitly states that reference to any prior publication is not, and should not be taken as, an acknowledgement or admission or any form of suggestion that the prior publication forms part of the CGK.⁷⁶ Dyno’s contention that incorporation by reference of a prior publication is, in and of itself, an admission that the information is “*known*” would require the Court to disregard the clear language of the 943 Patent to the contrary effect.⁷⁷

71. By **ONOC**, [7](b), Orica also contends that the Court is, in any event, required to disregard any information made publicly available through any publication of the invention by it in WO 837 pursuant to s 24 of the Act. Section 24 relevantly requires the Court to disregard any information made publicly available through WO 837, which was published on 5 August 2010 (the complete application for the 943 Patent was made on 29 September 2010, within the prescribed period of 12 months)⁷⁸ for the purpose of deciding whether an invention is novel or

⁷⁴ 943 patent, page 15, lines 20 to 23. See, by analogy, *Otsuka FCA*, 256, [365]-[367].

⁷⁵ That is, even if, by its incorporation by reference, the unpublished invention in WO 837 is “*known*” to some extent (which Orica disputes), it would still be necessary to have regard to the nature and purpose of the incorporation by reference of WO 837 in the 943 patent: see *Idenix Pharmaceuticals LLC v Gilead Sciences Pty Ltd* (2017) 134 IPR 1 at [165] (per Nicholas, Beach and Burley JJ). Here, that incorporation is no more than that the invention claimed (an underground mining method) is “*not limited*” to the particular selective control methods known to Orica by way of its unpublished patent application.

⁷⁶ 943 Patent, page 32, lines 8 to 12.

⁷⁷ *InterPharma*, 283 [473].

⁷⁸ 943 Patent, Appeal Book Part A, Tab 4 p ABA 130 (see also Orica’s chronology in answer).

involves an inventive step. Section 24 is not expressed to be limited to the assessment of novelty or inventive step under s 18(1)(b) of the Act. The anterior exclusion upon which Dyno relies is an alleged “*admission, on the face of the specification, which makes clear that the invention claimed is not novel or does not involve an inventive step.*”⁷⁹ This is not some “*discrete*” test.⁸⁰ It would be an irrational construction of the Act to require the Court to disregard a document for the purpose of considering the stringent requirements of novelty or inventive step under s 18(1)(b) of the Act, but to consider it when addressing the anterior question.

72. **ONOC, [7](a)**: even if WO 837 was to be taken as incorporated in full in the 943 Patent it would make no difference to the fate of this ground of appeal; *i.e.*, it cannot be said that the invention as claimed in the 943 Patent (including, on this argument, WO 837), is not novel or did not involve an inventive step. Although it was unnecessary for the primary judge to address this question (**J** [1205]), the primary judge’s decision may be affirmed on this ground as well.
73. A generalised disclosure; or something that “*may*” happen; or even “*would happen*” is insufficient to make out a lack of threshold invention on the face of a specification.⁸¹

*In essence, the appellants’ case on manner of manufacture involved an invitation to the court to look at the specification of the patent in suit, and at the Poulsen priority application incorporated by reference, to bring in the experts’ understanding of what probably would have happened under certain of the conditions described in the latter, and to join the dots necessary to draw an unbroken line to the conclusion that, as at the priority date, it involved no newness or inventiveness to describe a process in which an enzyme used in the preparation of a foodstuff was inactivated after the reaction in which it was involved. For the reasons I have given, I do not consider that that case was sufficiently based on what appeared on the face of the specification and the incorporated application, in the sense required by the authorities. I would reject the case.*⁸²

74. These observations are apposite with respect to DS [89] and [90]. Arguments at DS [89] that pre-charging and selective control of wireless detonator devices “*inherently*” disclose the claimed invention: **first**, were not raised below (or are, perhaps, a fig leaf for an argument that

⁷⁹ *D’Arcy v Myriad Genetics Inc* (2015) 258 CLR 334, 342, [12].

⁸⁰ *Lockwood No. 2*, 211, [106].

⁸¹ *Novozymes A/S and Another v Danisco A/S and Another v* (No 2) (2013) 99 IPR 417 (*Novozymes FCAFC*), 487, [216]-[220]; *AstraZeneca AB v Apotex Pty Ltd* (2014) 226 FCR 324 (*AstraZeneca FCAFC*), 40, [390]-[392]; *Sanofi FCA*, 69, [240].

⁸² *Novozymes FCAFC*, 488, [221] (per Jessup J, Greenwood J and Yates J agreeing at, respectively [1] and [241]).

was rejected below and has not been appealed⁸³); **secondly**, would be insufficient because “*inherent*” matters do not appear on the face of the specification; and **thirdly**, are wrong. At the priority date of the 943 Patent, any pre-charged portion of rock mass (and, as discussed below, there was very little evidence of such a practice) was neither “*stranded*”, nor blasted in a subsequent initiation event without personnel accessing it: J [1142]; J [1259](4).

75. There is no positive disclosure in WO 837 of any method of underground blasting. It discloses only that “*the methods may be used for surface and/or underground blasting*”.⁸⁴ As to Example 5 (Figure 3) (emphasis added): “*Surface 32 represents the surface of the ground, or other surface perhaps located underground*”. Mr Dunstan, for Dyno, assumed that Example 5 depicted a surface blast.⁸⁵ In order to perform Example 5 underground, the experts agreed that the arrangement of the blast holes would need to be changed.⁸⁶ Speculation as to what “*would have happened*” on the *assumption* that the method in Example 5 had been carried out underground, together with multiple assumptions about the orientation of the blast and the blast infrastructure,⁸⁷ wholly fails to engage with the relevant principles. This is not an ‘agreement’ (*cf* DS [90]) that Example 5, on its face, discloses each of the integers of any claim of the 943 patent. As to Example 6, the experts agreed that it related to the development of a mine shaft and not, as Mr Dunstan agreed, “*a method of blasting where there’s a creation of a stranded portion of rock that comprises ore having value*”.⁸⁸

76. The bare assertion at DS [91] that WO 837 discloses the additional features of dependent claims is unsupported. Dyno conceded below that WO 837 is silent as to the additional features of claim 5: see DSC4, [109](a). Recourse to CGK not disclosed on the face of the specification is wholly impermissible: *cf* ANoA [6.6]; DS [77] and [91].⁸⁹ In any event, the combination of features in the dependent claims is new and not obvious (see below).

C.2 The invention claimed in the 943 Patent is not obvious

77. DS [93] to [98] bears little resemblance to errors alleged by Dyno in ANoA, [7]. DS [98] does not address claims 3, 4, 5, 11, 15, 16, 17 and 21 of the 943 Patent; *cf* ANoA [7]. Orica assumes that the grounds that have not been addressed are abandoned.

⁸³ The argument raised, but not pleaded, below, was that a “*stranded portion of rock mass*” is “*an arbitrary integer*”. That argument was correctly rejected by the J and those findings are not challenged: J [1167]-[1170].

⁸⁴ See 873 Patent, page 13, lines 27 to 28.

⁸⁵ T1705.40-45 (Dunstan).

⁸⁶ T1684.1-17 (Dunstan); Grace 2, Ann PBG-11, [403(c) and (d)], [404].

⁸⁷ T1704.8-1705.46 (Grace and Dunstan).

⁸⁸ T1684.19-1685.19 (Grace and Dunstan); Grace 2, Ann PBG-11, [405].

⁸⁹ *AstraZeneca FCAFC*, 409, [392] and all of the authorities cited therein.

78. **PSA:** the field of the invention in the 943 patent is underground mining methods (J [1062], [1063]).⁹⁰ It is not specialised caving methods: J [1078]-[1080]. Knowledge of caving methods relevant to underground mining was not “*excluded*”: J [1085], [1153];⁹¹ cf DS [79]. However, the CGK of the PSA of ordinary skill in the field does not include Mr Dunstan’s expertise and know-how in relation to that sub-specialty (J [1079]; J [1081], [1083]⁹², [1085]) or his pioneering experience of pre-charging: J [1140]⁹³, [1148]-[1150].⁹⁴

79. **Alleged construction issues:** Orica is unable to discern the significance of the alleged “*construction issues*” at DS [78] to the 943 Patent. In any event, Dyno’s case below was run on the basis that the terms in the 943 Patent should be given the same meaning as the same terms in the 079 Patent.⁹⁵ It cannot, on appeal, change its case (especially where construction issue were the subject of evidence): cf DS [78]. Further, there is no error: the meaning of “*wireless detonator assembly*” turns on terms defined in the 943 Patent: J [1245(3)]. And it was Dyno that defined “*blasting machines*” alleged to be known for the purpose of the 943 Patent as “*being devices capable of being in signal communication with electronic detonators*”⁹⁶, and stated with respect to claim 1:⁹⁷

“*this core method necessitates the use of ‘an electronic detonator’ that ‘forms part of a wireless detonator assembly’, even though the use of such a system is only specified in claim 3*” (emphasis added)

80. **The invention is not obvious:** it is the claims that characterise the invention that must be obvious;⁹⁸ not some “*concept*” that omits multiple integers of the claims: cf DS [77] and [96].⁹⁹ The claimed invention includes, but is not only, “*pre-charging*”: J [1157]-[1171], [1249]-[1250]. In any event, DS [97] wholly fails to grapple with the whole content and effect of the 943 JER and the evidence: J [1256].

81. Critically, but not exhaustively, Dyno ignores each of the following impediments to its

⁹⁰ 943 JER [1]. See also Grace 1 [114].

⁹¹ See also 943 JER [3C].

⁹² See also Dunstan 1 [44].

⁹³ See also Dunstan 1 [37].

⁹⁴ To hold otherwise would fall into the error identified by Birss J in *Illumina Cambridge Ltd v Latvia MGI Tech SIA* [2021] EWHC 57, [62].

⁹⁵ Dyno relied on evidence regarding “*wireless detonator assemblies*” in the 079/165 JER in its closing submissions for the 943 Patent: DCS4, [35(b)]. The only 943 Patent construction issue raised related to the meaning of a “stranded portion of the rock mass”: DCS4, [30]-[60]; T1862.23-24.

⁹⁶ 6FASOC, [128](n).

⁹⁷ DSC4, [38].

⁹⁸ s 18(1)(a) of the Act; *Insta Image*, 133 [84]-[85]; *AstraZeneca FCAFC*, 425-441 [461]-[501] (per Jessup J; Besanko, Foster, Nicholas and Yates JJ agreeing at [228]).

⁹⁹ See fn 83, above, as to how this argument was raised (but not pleaded) and rejected below.

inventive step case. **First**, “*pre-charging*” was a concept the PSA would have heard of, but was not a step that the PSA would have taken as a matter of routine: **J** [1140], [1149]-[1151]¹⁰⁰, [1259(2)]. **Secondly**, and in any event, “*pre-charging*” did not have the features of the claims: **J** [1142], [1259(4)]. **Thirdly**, the PSA would not have attempted the claimed method without the availability of a wireless detonator (**J** [1247])¹⁰¹ and the CGK did not include wireless detonators (**J** [1264], [1269], [1277]) or even the BlastPED and Rothenbuhler devices: **J** [1277]. **Fourthly**, the PSA would not have used a wireless ED to “*pre-charge*” in an underground mine, even if one had been available: **J** [1271].¹⁰² This was about risk; not just regulations: **J** [1151]. Further, and in any event, such regulations directed to the prevention of risk impose practical and technical constraints upon the design of blasting methods in the hypothetical world properly taken into account when assessing inventive step.¹⁰³ **Fifthly**, it would have been “*incomprehensible*” to the PSA to design a blast that deliberately stranded a portion of the rock mass comprising valuable ore: **J** [1267], [1268], [1270]. That is, *contra* [96] and [98], the PSA would not “*conceive*” of it; nor consider it “*was possible*” (which, in any event, are the wrong tests ¹⁰⁴).

82. As to the third issue above, Dyno’s entire inventive step case below was put on an impermissible assumption¹⁰⁵ that the PSA had access to a *true* wireless detonator: **J** [1260]-[1262], when no expert had even conceived of such a product at the priority date of the 943 Patent.¹⁰⁶ The experts agreed the method claimed in the 943 Patent “*would not have been attempted by the PSA*” without the availability of such a wireless detonator.¹⁰⁷ For these reasons, and others as addressed at **J** [1253]-[1278], it is hard to think of a claimed invention that is less likely to be obvious.

83. The appeal should be dismissed, with costs.

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9 March 2026

Counsel for Orica

¹⁰⁰ See also Meneghini [72]-[87], Grace 2 [84]-[86].

¹⁰¹ By this, Mr Dunstan confirmed he meant a true wireless detonator: T1662.1-36. Even with a “*BlastPED-like initiation system*”, at its highest, Mr Dunstan’s evidence was “*you might have had a go. But yes, it would have been a high-risk outcome.*” T1663.24-39.

¹⁰² T1622.43-1624.25.

¹⁰³ *Lockwood No 2* at [111]; see, by analogy, *Motorola Solutions, Inc v Hytera Communications Corp Ltd (Liability)* (2022) 172 IPR 221 [235], considering restraints imposed by “standards environment” for communication systems.

¹⁰⁴ *The Wellcome Foundation Ltd v VR Laboratories (Aust) Pty Ltd (1981) 148 CLR 262, 286; Aktiebolaget Hässle v Alphapharm Pty Ltd (2002) 212 CLR 411, [53].*

¹⁰⁵ *AstraZeneca FCAFC*, 371 [202], 372 [207].

¹⁰⁶ T1597.16-29; T1599.12-13, 38-43 (Dunstan); T1513.35-1514.2 (Meneghini); T1518.13-24.

¹⁰⁷ 943 JER, [8D]; T1662.1-36.