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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA

IN RE SEAGATE TECHNOLOGY LLC  
LITIGATION

Case No. [16-cv-00523-JCS](#)

CONSOLIDATED ACTION

**ORDER DENYING MOTION FOR  
CLASS CERTIFICATION**

Re: Dkt. No. 135

**I. INTRODUCTION**

Plaintiffs, eight individuals who purchased hard drive products sold by Defendant Seagate Technology LLC (“Seagate”), move for certification of a nationwide class under California consumer protection law or eight subclasses under the laws of various states on claims that Seagate failed to disclose information indicating that products containing the ST300DM001 hard drive were less reliable than Seagate represented them to be or than consumers would expect based on industry norms. The Court held a hearing on June 15, 2018. For the reasons discussed below, Plaintiffs’ motion for is DENIED without prejudice to filing a second motion to certify a narrower class or subclasses.<sup>1</sup> The Court DENIES as moot Seagate’s motion to strike portions of Plaintiffs’ reply brief or to file a surreply, and GRANTS Plaintiffs’ motion to file supplemental materials, which the Court considered in reaching its conclusion on class certification. The Court also DENIES all pending motions to file documents under seal without prejudice to Seagate filing a consolidated motion identifying compelling reasons for such documents, or portions thereof, to remain under seal no later than July 26, 2018. A case management conference will occur on August 31, 2018 at 2:00 PM.

<sup>1</sup> The parties have consented to the jurisdiction of the undersigned magistrate judge for all purposes pursuant to 28 U.S.C. § 636(c).

United States District Court  
Northern District of California

1 **II. BACKGROUND**

2 **A. Evidentiary Record**

3 Both parties largely rely on the declarations of their expert witnesses to summarize the  
4 evidence. The summary below therefore generally tracks the declarations of those witnesses.

5 **1. Declaration of Andrew Hospodor**

6 Plaintiffs rely on a declaration by expert witness Dr. Andrew Hospodor, who has a Ph.D.  
7 in computer engineering (with a focus on storage architecture) and decades of experience working  
8 and teaching in the field of data storage. *See* Hospodor Decl. (dkt. 146-2) ¶¶ 4–15. Hospodor  
9 reviewed documents produced in discovery, as well as archived material previously published on  
10 Seagate’s website, and visually inspected a Seagate ST300DM001 drive. *Id.* ¶¶ 16, 46. He states  
11 that his opinions apply to that drive and the following products that incorporate it: the “Desktop  
12 HDD Internal Kit, Desktop External Drive, Barracuda, BackUp Plus Mac, BackUp Plus Desk,  
13 FreeAgent GoFlex Desk, GoFlex Desk for Mac, FreeAgent GoFlex Home, Expansion Desk,  
14 Expansion Desk Plus, Business 1 BAY NAS, Business 2 BAY NAS, and Business 4 BAY NAS.”  
15 *Id.* According to Hospodor, Seagate referred to these products within the company as the  
16 “Grenada” family of drives. *Id.* ¶ 24. The terms “Grenada Classic,” “Grenada BP,” “Grenada BP  
17 PL,” and “Grenada BP 2” refer to different iterations of the internal<sup>2</sup> Barracuda drive product and  
18 various other code names correspond to other products containing the ST300DM001, all of which  
19 were external<sup>3</sup> drives except for the “Desktop HDD Internal Kit.” *See id.* ¶¶ 25–26.

20 In summary, Hospodor concludes that “the ST300DM001 had a higher than advertised  
21 Annualized Failure Rate, was unsuitable for RAID, and was unreliable by industry standards,” and  
22 “that Seagate knew of these issues.” *Id.* ¶ 17. He breaks down his conclusions as follows:

23 i. The reliability testing and quality control process employed by  
24 Seagate for the ST300DM001 were flawed.

25 ii. Seagate advertised and continued to advertise the ST300DM001  
26 as reliable and having a specific Annualized Failure Rate (“AFR”) even though its own test data did not support this position.

27 <sup>2</sup> I.e., designed to be installed inside a computer or other device.

28 <sup>3</sup> I.e., designed to be used outside of and attached to a computer or other device with, for example, a USB cable.

1  
2 iii. The ST300DM001 was released for production before the design  
3 and manufacturing process were stable and reliable which resulted  
4 in an abnormal failure rate.

5  
6 iv. Seagate knew that the ST300DM001 was unstable, unreliable,  
7 and had a higher AFR than advertised.

8  
9 v. Seagate advertised and continued to advertise the ST300DM001 as  
10 being suitable for RAID despite the fact that it knew the drive was  
11 inherently unreliable and not suitable for RAID.

12 *Id.*

13 As background, Hospodor addresses different ways of measuring and advertising hard  
14 drive reliability. “AFR is the projected percentage of drives of a particular model that will fail in a  
15 given year.” *Id.* ¶ 27. The statistic is only intended to be accurate during the projected service life  
16 of a drive, which for the ST300DM001 is five years, as is typical in the industry. *Id.* ¶ 33.

17 Another measure of reliability, which drive manufacturers have moved away from in consumer-  
18 facing advertising due to potential confusion, is mean time between failures, or “MTBF,” which  
19 “refers to the average number of hours that are projected to elapse between one failure and the  
20 next in a population of hard drives.” *Id.* ¶¶ 28, 31. MTBF and AFR are related in that a higher  
21 MTBF corresponds to a lower AFR. *Id.* ¶ 29.

22 Both AFR and MTBF are calculated using “accelerated life testing,” in which large  
23 numbers of drives are run constantly—which would be atypical in normal use—for at least 30  
24 days and subjected to extreme conditions of temperature, voltage, and the like beyond their  
25 specifications in order to predict how the drives will perform under normal conditions over the  
26 much longer period for which they are expected to last in normal use. *Id.* ¶ 34. One of the  
27 parameters involved in calculating these metrics is the intended number of “power-on hours”  
28 (“POH”), or in other words the total amount of time a drive is expected to be used over the course  
of each year of its service life. *Id.* ¶ 36. According to Hospodor, Seagate calculates its reliability  
metrics for desktop drives like the ST300DM001 based on a POH value of 2,400, or about 6.5  
hours per day if used every day of the year. *Id.* ¶ 36. Hospodor asserts that Seagate’s product  
manuals before January 2015 “represented to consumers that [the] AFR is based upon an 8760  
POH workload,” equivalent to 24 hours per day, and that this discrepancy alters the meaning of

1 the AFR representation. *Id.* ¶ 37.<sup>4</sup>

2 Seagate’s design and production process includes a number of stages where Seagate  
3 evaluates the reliability of drives, both before and after drives are released. *Id.* ¶ 40. Seagate  
4 released the first versions of the ST300DM001 drive through “Seagate Branded Storage” or  
5 “SBS” channels—drives sold in Seagate-branded packaging with accessories like cables through  
6 retailers like Best Buy and Costco—at an earlier stage of the product life cycle, and thus with less  
7 testing, than ST300DM001 products released both: (1) to original equipment manufacturers  
8 (“OEMs”) like Hewlett-Packard and Apple that installed the drives in computers that they sold;  
9 and (2) through Seagate’s so-called “disty” distribution channel, which consisted of bare drives  
10 sold through resellers like Newegg and Amazon. *Id.* ¶¶ 41–42. Seagate’s requirements for  
11 products sold through the SBS channel were less stringent than for products sold through the OEM  
12 and disty channels. *Id.* ¶ 42 (citing a portion of a deposition transcript not submitted to the Court).  
13 Products incorporating subsequent iterations of the ST300DM001 drive went through shorter  
14 development cycles reflecting their status as updated rather than “brand-new designs.” *Id.* ¶ 43.  
15 Hospodor cites a 2011 data sheet for the Barracuda product as indicating that “[f]rom the time the  
16 ST300DM001 was first released in 2011, Seagate advertised its AFR as <1%, 0.34%, or both” and  
17 “marketed the Drive as ‘best-fit’ and ‘perfect’ for desktop RAID.” *Id.* ¶ 45 (citing Berman Decl.  
18 (dkt. 136) Ex. 11). A Barracuda product manual from April 2011, which Hospodor suggests was  
19 available on Seagate’s website, indicated that the ST300DM001 drive had an AFR of 0.34%. *Id.*  
20 ¶ 48–49 (citing a page bearing Bates number FED\_SEAG0019056, which is available in the  
21 record as Exhibit 1 to the declaration of Karl Schweiss). Other documents and websites from  
22 around the same time and continuing through January of 2013 also represented an AFR of either  
23 0.34% or less than 1%. *Id.* ¶¶ 50–54. According to Hospodor, although Seagate intermittently  
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25 <sup>4</sup> The representations to which Hospodor refers here in fact describe the rated workload of the  
26 drives in terms of the amount of data that can be written to and read from the drives, which is  
27 stated in the number of terabytes per year or terabytes per 8,760 POH. They do not explicitly  
28 indicate that Seagate used a rating of 8,760 POH in calculating AFR. *See, e.g.*, Schweiss Decl.  
(dkt. 152-3) Ex. 9 at 5. Notably, a 2011 data sheet that Hospodor subsequently cites (for the  
proposition that Seagate advertised a low AFR from the outset of selling the ST300DM001 drive)  
states that the AFR is based on 2,400 POH. *See* Berman Decl. Ex. 11.

1 removed the AFR representation from its website and other materials, a data sheet indicating an  
2 AFR of less than 1% was and remains continuously available and some iterations of Seagate's  
3 product manuals included that figure as late as 2016. *Id.* ¶¶ 54–56.

4 A shipping approval document for the first release of ST300DM001 products in April of  
5 2011, through the SBS distribution channel, indicates that Seagate required the products to rate  
6 higher than 100,000 hours of MTBF, and that the products in fact demonstrated an MBTF rating  
7 of 101,000 hours with a projected rating of 167,000 hours after taking all identified corrective  
8 action. *Id.* ¶¶ 61–63, 66 & fig. 5. Hospodor states that 101,000 hours MBTF is equivalent to an  
9 AFR of 2.35% at 2,400 POH and 167,000 hours MBTF is equivalent to an AFR of 1.43%,  
10 although he does not explain how he performed those calculations. *Id.* ¶¶ 64, 66. Hospodor also  
11 states that “the Drive also had an AFR (a projected first year Weibull<sup>[5]</sup>) of 7.006%,” with a  
12 projected AFR of either 2.34% or 2.35% if identified problems were corrected. *Id.* ¶¶ 65, 74–76.  
13 Hospodor is inconsistent as to the latter statistic, and the document on which he relies is not  
14 included in Plaintiffs' exhibits except for a nearly-illegible excerpt included as Figure 8 of  
15 Hospodor's declaration that appears to list 2.34%. *See id.* ¶¶ 65, 75–76 & fig. 8. Another line  
16 from the same chart indicates a “reduced AFR” of 1.43%, which Hospodor asserts “is an  
17 aspirational projection” of “the lowest possible AFR that could be achieved.” *Id.* ¶ 78. The  
18 column headings that would presumably explain the distinction between the 2.34% and 1.43%  
19 AFRs are cropped out of the excerpt of the chart included in Hospodor's declaration. *Id.* fig. 8.  
20 Hospodor does not explain the relationship between those AFR values and the AFR values he  
21 derived from the MTBR statistics on the shipping approval document, although it appears that the  
22 2.34% AFR from the second chart corresponds to the demonstrated MBTR and the 1.43% AFR  
23 from the second chart corresponds to the “projected” MBTR.

24 The shipping approval document also indicates that testing revealed that the case for the  
25

26 \_\_\_\_\_  
27 <sup>5</sup> A Weibull distribution is a two- or three-parameter statistical distribution commonly used in  
28 reliability analysis. Hospodor Decl. ¶ 91. The beta, or  $\beta$ , parameter is particularly important and  
reflects whether failure rates increase or decrease over time. *Id.* ¶ 91–93. Hospodor does not  
explain the use of Weibull distributions or methods of calculating a beta parameter in significant  
detail.

1 “Raptor” product, which Hospodor defines as referring to the Desktop External Drive product,  
 2 exceeded its specified limit by eleven degrees Celsius, and that as a result the Raptor product was  
 3 not approved for release at that time. *Id.* ¶¶ 26, 68–69. Hospodor states that in his experience,  
 4 such a significant temperature deviation in one product incorporating the drive represents a major  
 5 problem that should have been resolved before any product incorporating the drive was released.  
 6 *Id.* ¶ 70.<sup>6</sup> Hospodor interprets another page of the document as indicating that the drives  
 7 underwent at least four rounds of testing, which he asserts is unusual and suggests that Seagate  
 8 was repeatedly testing “a ‘bone pile’ of drives that failed one or more previous tests” in an attempt  
 9 to certify them for distribution. *Id.* ¶¶ 71–73.<sup>7</sup>

10 About six months later, Seagate released ST300DM001 drive products through its OEM  
 11 and disty distribution channels. *Id.* ¶ 80. According to Hospodor, the October 2011 shipping  
 12 approval document for those products listed an actual first-year AFR of 2.621% and a  
 13 “demonstrated reduced AFR” of 0.95%. *Id.* ¶ 81. Both the April 2011 SBS shipping approval and  
 14 the October 2011 OEM/disty shipping approval noted that issues with the read-write heads<sup>8</sup>  
 15 contributed to a significant number of the failed drives. *Id.* ¶¶ 79, 82.

16 Hospodor describes later internal Seagate documents as similarly revealing AFRs above  
 17 the rates advertised. Post-release testing of the Grenada Classic product in June of 2012  
 18 demonstrated a first-year AFR of 3.436% and reduced AFR of 2.35%. *Id.* ¶¶ 84–85.  
 19 Approximately one in four failures during the post-release testing were attributable to read-write  
 20 heads. *Id.* ¶ 86. Hospodor states that the progression of AFR product from 2.34% at the SBS  
 21 release to 2.621% at the OEM/disty release to 3.436% in post-release testing indicates “that the  
 22 Drives were wearing out prematurely.” *Id.* ¶ 85. According to Hospodor, the increasing AFR also  
 23

24 <sup>6</sup> According to Patrick Dewey, Seagate’s core team lead for the Grenada family of drives, the  
 25 temperature issue with the Raptor product was caused by the design of that product’s external  
 26 case, not by any problem with the ST300DM001 drive. Dewey Decl. ¶ 12.

27 <sup>7</sup> Dewey states that this analysis is incorrect, and that the various tests were performed on different  
 28 sets of drives during the development process while Seagate finalized the design. Dewey Decl.  
 ¶ 13.

<sup>8</sup> Read-write heads are suspended a minute distance from the spinning platters of the drives where  
 data is stored and are moved across the platters by mechanical arms to read or write data on  
 different portions of the platters. *See* Hospodor Decl. ¶ 21.

1 indicates that Seagate erred in calculating a Weibull beta value of less than one, which indicated a  
2 decreasing failure rate over time. *Id.* ¶¶ 90–95.

3 A shipping approval document for the release of the next-generation Grenada BP product  
4 in April of 2012 listed “a first-year AFR of 2.942% and a ‘demonstrated reduced AFR’ of 2.0%,”  
5 and subsequent testing of that product in May of 2012 revealed a first-year AFR of 2.917% and a  
6 reduced AFR of 0.98%. *Id.* ¶ 83 & n.38.

7 Hospodor also summarizes a presentation prepared by Dr. Andrei Khurshudov, Seagate’s  
8 Senior Director of Cloud Storage Quality Engineering, in June of 2012. *Id.* ¶¶ 96–111. Plaintiffs  
9 have not submitted the presentation itself, but portions of it are included as figures within  
10 Hospodor’s declaration. *See id.* figs. 11–13. Khurshudov reviewed failure rates for older, non-  
11 ST300DM001 Seagate products and identified a possible trend in successive products away from  
12 failure rates that decreased over time and towards rates that stayed constant over time, or that  
13 showed signs of “wearout,” i.e., increasing failure rates as time goes on. *Id.* ¶¶ 98–103 & figs. 11–  
14 13. He stated that Seagate always presumed that its products’ failure rates declined over time—or  
15 in other words, had a Weibull beta value less than one—and calculated its AFR projections based  
16 on that premise, but that the beta value might be increasing for newer products, which might not  
17 “have enough design margin.” *See id.* Khurshudov concluded that the relatively short tests that  
18 Seagate uses to calculate beta values might not be well suited to predicting long-term behavior, *id.*  
19 ¶ 106, and that beta values equal to or greater than 1 might serve to better model the actual failure  
20 rates of Seagate’s products, *id.* ¶¶ 109–10. One chart in Khurshudov’s presentation includes early  
21 data from the Grenada drive that appears to suggest it falls towards the “wearout” end of the  
22 spectrum of products, but Khurshudov states that Seagate should wait for more data before making  
23 a conclusion about Grenada’s failure rate over time. *Id.* fig. 12. Hospodor nevertheless concludes  
24 that Khurshudov’s analysis accurately applies to the Grenada/ST300DM001 because those drives  
25 failed at high rates in a subsequent study by Backblaze, a third party that used the drives in a non-  
26 consumer setting. *Id.* ¶¶ 104–05.

27 A chart of reliability test results for the Grenada BP2 product, released in January of 2014,  
28 shows AFRs increasing from 1.039% in the first year through 1.951% in the fifth year. *Id.*

1 ¶¶ 112–13 & fig. 14. Hospodor states that he cannot reconcile those figures with the beta value of  
2 0.394 listed on the same chart, because a beta value less than 1 indicates a decreasing failure rate  
3 over time. *Id.* ¶¶ 114. He also states that those results call into question the accuracy of AFRs  
4 stated in earlier Seagate documents, which generally included only the first-year AFR metric,  
5 which would be appropriate only if the failure rate decreased over time. *Id.* ¶ 115. As a result,  
6 Hospodor concludes that “the true AFR of the Drive was likely appreciably higher than the values  
7 projected by Seagate.” *Id.* ¶ 117.

8 Hospodor’s declaration details the process by which Seagate identified a series of issues  
9 with the production of its drives and changed aspects of the design or manufacturing processes to  
10 attempt to resolve those issues. *See* Hospodor Decl. ¶¶ 118–68. Those included over 1,000  
11 engineering change requests (“ECRs”) for the Grenada Classic product, more than 70% of which  
12 occurred after the drives began mass production. *Id.* ¶ 129 & fig. 18. A chart that Hospodor  
13 prepared of the ECRs over time shows a large spike from mid-2011 through mid-2012, with the  
14 number of ECRs dropping off significantly in 2013. *Id.* ¶¶ 132–33 & figs. 19–20. The Grenada  
15 BP product was subject to 732 ECRs, which Hospodor also characterizes as an unusually large  
16 number, although he provides less detailed analysis of the ECRs for that product. *Id.* ¶ 136.  
17 Hospodor identifies Seagate’s twelve firmware updates for the ST300DM001 drive, including  
18 some that resolved issues with the potential to cause drive failures, as an abnormally large number.  
19 *Id.* ¶ 162. Seagate also on several occasions issued shipping holds on batches of drives, including  
20 some circumstances where Seagate redirected “failed” drives to the SBS or disty distribution  
21 channels rather than to OEM manufacturers that used the drives as components in computers. *Id.*  
22 ¶¶ 154, 169–75.<sup>9</sup> Hospodor also notes that the ST300DM001 drives had a very low factory  
23 yield—i.e., the percentage of drives produced that were usable without corrective action—in the  
24

25 <sup>9</sup> According to Harrie Netel, a senior Seagate employee responsible for quality control,  
26 reclassifying drives that did not meet the standard for internal use to SBS status, which consisted  
27 of external drive products, was normal and not improper because external products did not require  
28 drives to meet the same technical standards to perform at a satisfactory level. Netel Decl. ¶ 35.  
Netel states that it would be unusual for drives to be reclassified from OEM to disty, because those  
two distribution channels generally required the same standards, but that might occur if Seagate  
determined that an issue was specific to OEM usage. *Id.*

1 early period of production, ranging from 43% in April of 2011 through around 70% in April of  
2 2012, as compared to an industry standard of 90% to 99%. *Id.* ¶¶ 118–26. According to  
3 Hospodor, all of these issues indicated that the ST300DM001 was unreliable and that Seagate was  
4 aware of its unreliability. *See, e.g., id.* ¶¶ 120, 130, 162, 176, 194–95. In support of that  
5 conclusion, he presents an October 2012 email from another Seagate employee to Khurshudov  
6 that includes the following passage:

7           In the recent history, Grenada is the highest volume by far. *But*  
8           *Grenada is not very stable right now.* It could be a good study since  
9           it would represent the extreme ... could we still catch the existing  
          problems even with nearly constant shifts in performance.

10 *Id.* ¶ 135 & fig. 21 (emphasis added by Hospodor) (ellipsis in original).

11           Hospodor emphasizes an incident where issues with the lubricant used between the disk  
12 platters and the read-write heads had resulted in customers returning 6% of Apple products  
13 incorporating those drives, leading Apple to recall those products in June of 2015 without  
14 publically naming Seagate as the source of the defective parts. *Id.* ¶¶ 182–87. According to  
15 Hospodor, Seagate knew of the issue in 2013 and corrected the design in May of that year but did  
16 not disclose the issue to Apple until 2015 and never informed its other customers, despite at one  
17 point considering, and declining to implement, a plan to offer free data recovery to affected  
18 customers at a cost of up to \$148 million. *Id.* ¶¶ 188–92 & fig. 30. An internal Seagate document  
19 from 2015 stated that 95% of the drives returned to Apple were manufactured before the design  
20 correction in May of 2013, *id.* ¶ 183, and Seagate estimated that in addition to the 130,000  
21 affected drives in Apple products, an additional 850,000 affected drives had been sold to  
22 consumers through other channels and remained under warranty, *id.* ¶ 190 & fig. 30.

23           Hospodor also notes that Seagate revised the operating parameters for the ST300DM001  
24 drives on several occasions in 2011, 2012, 2015, and 2016, generally to make the approved  
25 operating conditions more restrictive. *Id.* ¶¶ 197–206. He states that Seagate limited the approved  
26 operating temperature to an unreasonably low threshold that would not allow for use and storage  
27 in warm climates, that Seagate’s 55 terabyte per year workload rating was unreasonably low and  
28 outside of industry norms, and that such restrictions demonstrate that Seagate knew the drives

1 were unreliable. *See id.*

2 Finally, Hospodor concludes that because the drives were unreliable, they were not suitable  
3 for RAID configurations, and that internal Seagate documents indicate that its employees advised  
4 against using the ST300DM001 for RAID. *Id.* ¶¶ 207–12.

## 5 **2. Deposition of Andrew Hospodor**

6 At his deposition, Hospodor testified that he did not understand his role to be identifying a  
7 particular defect that was present across the class period, that he did not believe the drives had the  
8 same failure rate throughout the class period, and that he had drawn no conclusions about the  
9 failure rate of ST300DM001 drives beyond the beginning of 2013. Payne Decl. (dkt. 152-1) Ex.  
10 11 (Hospodor Dep.) at 49:19–20, 50:23–51:3, 128:23–129:5; 224:15–225:17. He testified that in  
11 his opinion the failure rate increased over the eight months after the start of production, but that he  
12 did not have data to render an opinion as to whether drives produced a year after that had a higher  
13 failure rate. *Id.* at 52:3–18. According to Hospodor, his report and the data he cited therein were  
14 “meant to be exemplary, not comprehensive.” *Id.* at 52:23–25; *see also id.* at 128:7–14, 255:8–11,  
15 256:11–16, 315:4–7.

16 In response to questions as to whether recounting the AFRs presented in Seagate’s product  
17 manuals, data sheets, and website required his expertise, Hospodor stated that he believed an  
18 ordinary person could understand the information presented in those sources. *Id.* at 315:22–  
19 317:13.

## 20 **3. Declarations of Donald Adams and Seagate Employees**

21 Like Hospodor, Seagate’s expert witness Donald Adams is an engineer with decades of  
22 experience in the electronic storage industry. Adams Decl. (dkt. 150-4) ¶¶ 3–8. Adams  
23 summarizes his conclusions as follows:

24 A. Hospodor fails to support his claims that the ST300DM001  
25 drives had a higher than advertised AFR;

26 B. Hospodor’s claim that Seagate’s testing “underestimated” the  
27 “true” AFR of the drives makes no sense, and is based on  
28 misinterpretation of Seagate’s documents and misapplication of  
principles of failure analysis;

1 C. Hospodor fails to support any conclusion that Seagate's internal,  
 2 desktop ST3000DM001 products had an AFR above 1% across the  
 3 class period and across different versions of the ST3000DM001  
 4 (Grenada Classic, Grenada BP and Grenada BP2), or that the  
 ST3000DM001 drives had any problem common throughout the  
 class period (2011–2016), or common to the products and drive  
 versions at issue;

5 D. Hospodor fails to support the claim that Seagate's reliability  
 testing and quality control process were flawed;

6 E. Hospodor does not justify the claim that the ST3000DM001  
 7 drives (Grenada Classic, BP and BP2) were released for production  
 before the design and manufacturing process were properly qualified  
 8 to meet product and business goals, and unreasonably concludes the  
 ST3000DM001 was inherently 'unstable' and 'unreliable';

9 F. On the whole, Hospodor's opinions are not based on sufficient  
 10 data and are not the product of accepted principles of reliability  
 analysis correctly applied to Seagate's data[.]

11 *Id.* ¶ 15.

12 With respect to advertised AFR, Adams contends that Hospodor fails to address the  
 13 distinction between external SBS products,<sup>10</sup> for which (according to Adams) there is no evidence  
 14 that Seagate ever advertised an AFR, and internal disty products, which Seagate intermittently  
 15 advertised as having an AFR of either 0.34% or less than 1%, but for which (again according to  
 16 Adams) there is no evidence that Seagate actually sold drives with an AFR higher than 1%. *Id.*  
 17 ¶ 16. Adams states that although Hospodor cites two documents showing internal Grenada Classic  
 18 drives having an AFR higher than 1% in 2012, the drives were subject to a shipping hold at the  
 19 time and thus were not sold to consumers. *Id.* ¶¶ 16(d), 63–65. Otherwise, the documents  
 20 showing higher AFRs applied only to external SBS products during the early periods of selling  
 21 those products, and even for those products the AFRs improved to below 1% once the  
 22 corresponding internal disty products were released, because Seagate used the same drives in both  
 23 sets of products. *Id.* ¶¶ 21–22; Dewey Decl. (dkt. 150-8) ¶ 8.

24  
 25 \_\_\_\_\_  
 26 <sup>10</sup> Adams states that Seagate's SBS distribution channel consists of external products and that its  
 27 disty distributional channel consists of internal products. Adams Decl. ¶ 16; *see also* Dewey Decl.  
 28 ¶ 5. The parties dispute whether the Internal Drive Kit products were SBS products. Seagate's  
 employees state that, like other internal drive products, they were considered disty products. *E.g.*,  
 Dewey Decl. ¶ 7. Hospodor states, based on a deposition transcript not included in the record and  
 on internal Seagate documents, that the Internal Drive Kit was an SBS product. Hospodor Decl.  
 ¶ 42 & n.16; Hospodor Rebuttal Decl. ¶¶ 73–76.

1 Specifically, Adams states that the April 2011 shipping approval document on which  
 2 Hospodor relies was limited to a single SBS external drive product, for which Seagate never  
 3 advertised an AFR and only required that the drive have an MBTF of at least 100,000 hours.  
 4 Adams Decl. ¶¶ 55–56. According to Adams, the drive satisfied that requirement at the time, and  
 5 would have also had an AFR of less than 1% if calculated based on Seagate’s estimate of two  
 6 hours of use per day, or 730 POH per year, that Seagate uses for external drives. *Id.* Similarly,  
 7 when Hospodor discusses an April 2012 shipping approval document for the Grenada BP, Adams  
 8 contends that the document related only to “shipping the Grenada BP *as part of external, USB*  
 9 *(SBS) products.*” *Id.* ¶ 58. In contrast, Adams states that the subsequent shipping approvals for  
 10 internal disty products in October of 2011 and May of 2012 showed AFRs slightly below 1%,  
 11 based on his opinion, supported by statements from Seagate employees, that the demonstrated  
 12 reduced AFR metric, rather than the higher “raw” AFR, accurately reflected the true AFR of  
 13 drives shipped to consumers because it accounted for changes that Seagate had made to the drives.  
 14 *Id.* ¶¶ 59, 61 (citing, e.g., Almgren Decl. (dkt. 150-6) ¶ 18; Dewey Decl. ¶ 15). Adams also states  
 15 that the decreasing “reduced AFR” metric between the earlier SBS releases and later disty releases  
 16 refutes Hospodor’s conclusion that the drives showed increasing AFR over time, which Hospodor  
 17 reached in part by improperly comparing different metrics at different times—reduced AFRs for  
 18 earlier drives and raw AFRs for subsequent drives. *Id.* ¶¶ 60, 72. More fundamentally, Adams  
 19 states that changes in reliability of *different* populations of drives, tested separately, do not  
 20 implicate the drives’ beta value, which is instead based on whether the failure rate of the *same*  
 21 population of dives increases or decreases over time, not whether later-produced drives are more  
 22 or less reliable than earlier-produced drives. *Id.* ¶ 73; *see also* Almgren Decl. ¶ 23.<sup>11</sup>

23 Adams disputes Hospodor’s conclusion that Seagate underestimated the AFR of its drives.  
 24 *Id.* ¶¶ 17–20 & fig. 1. According to Adams, the Weibull beta value used in Seagate’s calculations  
 25 was derived from testing (rather than presumed) and Seagate was correct to calculate beta values  
 26

27 <sup>11</sup> As an analogy, Adams states that statistics showing that the child mortality rate was higher in a  
 28 later century than an earlier century would not indicate that the chance of dying increases as a  
 person ages. Adams Decl. ¶ 73.

1 less than 1, but even if that were not the case, using an artificially low beta value while holding  
2 other parameters constant would have the effect of inflating, rather than reducing, the calculated  
3 AFR, and thus would understate rather than overstate the reliability of the drives. *Id.* ¶¶ 17–20,  
4 68–70. Adams relies on documents and Seagate employee testimony for the conclusion that  
5 Seagate derived both beta and eta (the other parameter in a two-parameter Weibull function) from  
6 testing its drives, and that the only assumption used in calculating AFR was the POH<sup>12</sup> (the  
7 number of hours of use) per year. *Id.* ¶¶ 38–39 & fig. 2; *see also* Netel Decl. (dkt. 150-10) ¶ 20.  
8 He cites an internal Seagate document as showing that Seagate estimated that internal disty and  
9 OEM drives would be used eight hours per day and external SBS backup drives would be used  
10 two hours per day, for an annual POH of 2,400 for the former and 730 for the latter. Adams Decl.  
11 ¶¶ 43–44 & fig. 3. Adams states that those estimates are reasonable in his experience because  
12 desktop computers are typically used by a single person (and thus not used twenty-four hours per  
13 day) and external drives do not experience the same degree of use as internal drives. *Id.* ¶ 44.

14 Glen Almgren, Seagate’s engineering director for reliability, addresses the chart that  
15 Hospodor interpreted as showing increasing AFR over five years for the Grenada BP2 drive.  
16 Almgren Decl. ¶ 29 & fig. 2. According to Almgren, only the first line of that chart, for the first  
17 year, is an AFR value, and the subsequent lines (labeled “FR” for the second through fifth year)  
18 are aggregate failure rates for each of those years. *Id.* Since the difference between each line  
19 decreases, even as the *aggregate* rate increases, the chart demonstrates a decreasing *annualized*  
20 failure rate—or in other words, while the total number of failed drives *after* five years is naturally  
21 larger than the number of failed drives at any earlier time, the number of drives that failed *in* the  
22 fifth year is lower than the number that failed in any one earlier year. *See id.*

23 With respect to the report from Andrei Khurshudov that Hospodor relied on for his  
24 conclusion that Seagate improperly assumed a too-low beta value, Adams contends that Hospodor  
25 failed to account for a number of limitations of that report stated on the face of the report and in

26 \_\_\_\_\_  
27 <sup>12</sup> According to Adams, POH in itself properly refers to the total number of hours a drive has been  
28 powered on over the course of its life, rather than estimated hours per year, but while he criticizes  
Hospodor’s use of “POH” to refer to what Adams would frame as “POH per year,” he agrees that  
yearly POH is the value used in calculating AFR. *See* Adams Decl. ¶ 43.

1 Khurshudov’s deposition testimony, including that its conclusions were based on “eyeballing”  
2 chart curves and required further analysis, that it did not apply to consumer drives (which the  
3 report stated actually showed a beta of less than one), and that it was based on product returns  
4 rather than confirmed drive failures. Adams Decl. ¶¶ 75–77. Adams also states that Khurshudov  
5 was wrong to state in the report that Seagate assumed its beta values (rather than deriving them  
6 from testing), and that the misstatement might have resulted from Khurshudov’s role in abstract  
7 research rather than concrete product development. *Id.* ¶ 76(e) & n.22; *see also* Almgren Decl.  
8 ¶¶ 23–27. Adams discounts Hospodor’s reliance on Backblaze’s testing for a number of reasons,  
9 but primarily because, according to Adams, Backblaze mounted the drives in faulty “pods” and  
10 subjected them to commercial-grade workloads that exceeded their intended use as consumer  
11 products. Adams Decl. ¶¶ 79–81. Adams notes that most of Backblaze’s ST300DM001 drives  
12 were early Grenada Classic models and thus would not be indicative of later models’ performance.  
13 *Id.* ¶ 81.

14 Adams also contends that Hospodor’s other purported evidence of product instability,  
15 including yield rates, ECRs, and firmware updates, does not evince higher-than-advertised AFR,  
16 and regardless is largely limited to the Grenada Classic drives during the period from 2011 to  
17 2012. *Id.* ¶¶ 23, 27, 29, 82–105. According to Adams, the number of ECRs was not abnormal,  
18 and Hospodor failed to provide any point of comparison for what he considered to be a normal  
19 rate of ECRs for a new product—and in particular, a product like the ST300DM001 that, at one  
20 terabyte per platter, represented a new degree of capacity for Seagate if not for the industry as a  
21 whole. *Id.* ¶ 28; *see also* Dewey Decl. ¶¶ 21–23 (stating that early low factory yields were  
22 expected for the ST300DM001 and do not indicate that unreliable drives reached consumers).  
23 Relying on Seagate employees’ testimony and declarations, Adams states that only a small  
24 percentage of the ECRs related to reliability issues (as opposed to, say, qualifying an additional  
25 vendor for a particular part) and that Hospodor misinterprets a number of the ECRs he cites.  
26 Adams Decl. ¶¶ 88–94; *see also* Dewey Decl. ¶¶ 29–36. Adams similarly states that Hospodor  
27 only ties two of the twelve firmware updates to reliability issues, and that the total number of  
28 firmware updates is not excessive when accounting for the fact that Seagate went through three

1 different versions of the drive (the Grenada Classic, Grenada BP, and Grenada BP2). Adams  
2 Decl. ¶¶ 96–101; *see also* Dewey Decl. ¶¶ 37–39. With respect to shipping holds, Adams asserts  
3 that Hospodor’s reasoning is flawed because the holds prevented potentially inferior products  
4 from reaching consumers, and thus are not evidence that consumers received defective drives.  
5 Adams Decl. ¶ 29. He also notes that the holds cited by Hospodor were limited to 2011 and 2012,  
6 and that Seagate’s employees state that they did not receive quality complaints from any OEM  
7 customer besides Apple. *Id.* ¶¶ 102–05.

8 Adams states his opinion that Seagate’s development and testing practices are sound and  
9 consistent with industry standards. *Id.* ¶¶ 25, 45–46, 49. According to Adams, Seagate’s testing  
10 simulates three to four years of typical wear on a drive. *Id.* ¶ 33. Adams also states that it was  
11 reasonable and consistent with industry practices for Seagate to release drives in Seagate-branded  
12 (i.e., SBS) external products before releasing them for use as internal components to OEM  
13 manufacturers and consumers, in part because use in Seagate’s own products allows for more  
14 control over the operating conditions, and in part because internal hard drives typically experience  
15 more use than external drives and thus need a higher degree of reliability and more testing to  
16 determine whether they meet that standard. *Id.* ¶ 47.

17 Finally, Adams disputes Hospodor’s opinion that the restrictions Seagate imposed on the  
18 drives’ operating conditions were unreasonable, and contends that the categories of drive failure  
19 that Hospodor identified—for example, head instability or contamination—do not represent any  
20 form of consistent, related defect across the class period. *Id.* ¶¶ 107–19.

#### 21 **4. Rebuttal Declaration of Andrew Hospodor**

22 Hospodor contends in his rebuttal declaration that shipping holds did not eliminate  
23 problems with the drives because Seagate’s documents related to those holds list the number of  
24 affected drives that had already been shipped to customers. Hospodor Rebuttal Decl. (dkt. 158-7)  
25 ¶¶ 6–22.<sup>13</sup> Hospodor states that given the weeks required for Seagate’s rolling quality tests during  
26

27 <sup>13</sup> As is common in Hospodor’s declarations, the document cited for this proposition is not in the  
28 record before the Court. *See* Hospodor Rebuttal Decl. ¶ 6 n.2 (citing Bates number  
FED\_SEAG0054972).

1 production, Seagate would not learn that a particular batch of drives was defective until after many  
2 such drives had been sold, and Seagate’s employees acknowledged in internal communications  
3 that drives that should have been held were sometimes shipped. *Id.* ¶¶ 7–8. According to  
4 Hospodor, Seagate shipped at least 1.9 million drives affected by defects that led to holds. *Id.* ¶ 9.

5 Hospodor includes in that total the at least 850,000 drives affected by the issue which led  
6 Apple to issue a recall of products containing ST300DM001 drives. *Id.* ¶ 9 n.7 & ¶¶ 23–26.  
7 Hospodor states that although it is “technically true” that the recalled Apple drives are not at issue  
8 in this case, the 850,000 drives that Seagate sold to consumers through its disty and SBS channels  
9 that were affected by the same problem “are precisely the Drives that are at issue in this case.” *Id.*  
10 ¶ 26. Hospodor disputes Adams’s view that the Apple recall represented an isolated issue of drive  
11 contamination, noting ship holds related to contamination in 2012 and 2015, and testing revealing  
12 contamination issues in 2014. *Id.* ¶¶ 30–31. Hospodor also disputes Adams’s conclusions that  
13 customer return rates are not a reliable metric of drive failures and that OEMs other than Apple  
14 did raise issues related to the ST300DM001 drives. *Id.* ¶¶ 32–34.

15 In response to Adams’s criticism that Hospodor only identified two post-release testing  
16 documents showing AFRs above 1% for internal drives, Hospodor states that “[a]pparently,  
17 Adams did not realize that [Hospodor’s first declaration] was not meant to provide an exhaustive  
18 list of the many examples of [post-release testing] AFR values above the 1% threshold.” *Id.* ¶ 35.  
19 Hospodor cites Seagate documents that he states “show that for at least 39 weeks out of a 74-week  
20 period, the projected AFR was >1%,” including—for the Grenada Classic—a February 7, 2012  
21 chart showing AFR between 1% and 2.21% for a twelve-week period, a June 2012 document  
22 showing a raw AFR of 3.436% and a reduced AFR of 2.35%, a November 2012 chart showing  
23 AFR ranging between 2.52% and 1.72% over a twelve-week period, and a May 2013 document  
24 showing AFR starting around 2%, peaking at 2.66%, and eventually dropping to 0.73% over  
25 another twelve-week period. *Id.* ¶¶ 36–44 & figs. 3–6. Charts for the Grenada BP drive during  
26 the same period in 2013 showed AFRs between 1% and 1.5% for disty drives (although several  
27 weeks of that chart are obscured by a graphic), between 1% and 1.31% for the combination of  
28 OEM and disty drives, and between 0.88% and 1.31% for OEM drives only. *Id.* ¶¶ 44–46 & figs.

1 7–9.

2 According to Hospodor, his opinion that the actual AFR was higher than Seagate’s tests  
3 indicated is supported by a Seagate chart for a different product, codenamed Pharaoh, which states  
4 that the average actual failure rate for that product exceeded average AFRs determined through  
5 testing by around 12%<sup>14</sup> over a two-year period that showed significant variability in both metrics.  
6 *Id.* ¶¶ 51–52 & fig. 10.

7 Addressing the Backblaze’s testing, Hospodor contends that although “the specific failure  
8 rates experienced by Backblaze [are not] evidence of the precise AFR of the Drives experiences  
9 by regular consumers” because Backblaze used the drives in a more extreme setting, the test are  
10 still relevant because the failure rate of the ST300DM001 drives increased over time and  
11 significantly exceeded the failure rate of other drives tested. *Id.* ¶¶ 53–60 & figs. 11, 12.

12 Hospodor also states that a reasonable consumer would have understood Seagate’s website  
13 to suggest during at least certain periods of time that the ST300DM001 drives’ AFR was 0.34%,  
14 which is significantly and materially lower than the AFRs that Seagate’s tests showed. *Id.* ¶¶ 61–  
15 66. Hospodor disputes Adams’s opinion that consumers would only use external SBS products as  
16 backup drives for two hours per day, noting that external drives could be used as a computer’s  
17 primary hard drive and that Seagate advertised at least some of its external products as suitable for  
18 expansion of a computer’s storage space or for use as home servers, use cases that, according to  
19 Hospodor, would involve the drives being used more often. *Id.* ¶¶ 67–71. Hospodor states that if  
20 such drives were used for 2400 POH per year, rather than 730 as estimated by Seagate, Seagate’s  
21 threshold MTBF rating of 100,000 hours for external products would equate to an AFR of  
22 approximately 2.3%. *Id.* ¶ 72. Hospodor also cites Seagate documents as showing that one  
23 internal drive product, the Internal Retail Kit, was an SBS product, contradicting Adams’s and  
24 Seagate’s employee’s statements that SBS products consisted only of external drives. *Id.* ¶¶ 73–  
25 76 & figs. 14, 15.

26  
27  
28 <sup>14</sup> To avoid potential confusion by the reader, field failure rate was around twelve percent, not  
twelve percentage points, higher than the average tested AFR: the actual failure rate was 1.29%  
and the test-derived AFR was 1.24%. Hospodor Rebuttal Decl. ¶ 52 & fig. 10.

1 Finally, while Hospodor agrees with Adams that the number of ECRs (engineering change  
2 requests) cannot be used to determine AFR, he stands by his position that the number of ECRs for  
3 the Grenada Classic and Grenada BP drives was abnormally high and “indicative of an unstable,  
4 prematurely released product,” and disputes Seagate’s witnesses’ positions that the examples he  
5 addressed in his first declaration were not indicative of reliability problems. *Id.* ¶¶ 77–96.

##### 6 **5. Expert Witnesses Addressing Consumer Preferences**

7 Both parties offer declarations from expert witnesses regarding the significance of the  
8 purported omission to class members and the economic loss (or lack thereof) suffered by class  
9 members. Plaintiffs’ witness, Stefan Boedeker, states that based on a consumer survey and  
10 conjoint analysis, consumers find representations of less than 1% AFR to be economically  
11 significant and would experience an economic loss ranging from 16.9% of the purchase price if  
12 the true AFR were 3% to the entire purchase price if the true AFR exceeded 10%. Boedeker Decl.  
13 (dkt. 146-1) ¶¶ 20–22. Boedeker asked survey respondents what attributes of a hard drive they  
14 valued, and also asked whether they would buy hard drives with various combinations of features  
15 at various prices. *Id.* ¶¶ 101–14. For the AFR attribute, the possible choices were “1% or less,”  
16 10%, 25%, and 50%, and Boedeker extrapolated a demand curve from the results of surveys that  
17 included those choices to determine the value of lower AFR ratings. *See id.* ¶¶ 111, 116–22. In  
18 contrast to AFR representations, which he concluded were significant, Boedeker determined that  
19 “the impact of RAID and NAS is small” and “within the bounds of the confidence interval for the  
20 economic losses related to AFR.” *Id.* ¶ 158.

21 Seagate’s expert, Itamar Simonson, states that Boedeker’s methods were unreliable  
22 because, among other reasons, his survey artificially highlighted AFR and other included  
23 attributes by excluding other relevant attributes like drive capacity. *See generally* Simonson Decl.  
24 (dkt. 150-11). Simonson presents the results of his own survey, which showed no significant  
25 difference to consumers between a drive advertised as having less than 1% AFR and a drive  
26 advertised as having less than 8% AFR. *Id.* Boedeker responds that Simonson’s survey is  
27 methodologically flawed and that Simonson both misrepresents the nature of Boedeker’s study  
28 and fails to apply basic statistical and economic principles correctly. *See generally* Boedeker

1 Reply Decl. (dkt. 158-6).

2 **B. Parties' Arguments**

3 **1. Plaintiffs' Motion**

4 Plaintiffs move to certify a nationwide class, based on an omissions theory under several  
 5 California consumer protection statutes: the Consumer Legal Remedies Act, Unfair Competition  
 6 Law, and False Advertising Law. Mot. (dkt. 133-3) at 3. Plaintiffs' proposed nationwide class  
 7 consists of all individuals who purchased ST300DM001 hard drives or products containing them,  
 8 namely forty-five specific product numbers, before February 1, 2016. Mot. (dkt. 133-3) at 3–4. In  
 9 the alternative, Plaintiffs propose subclasses based on omissions theories under the consumer  
 10 protection laws of the eight states where the named plaintiffs purchased their Seagate products:  
 11 California, Florida, Massachusetts, New York, South Carolina, South Dakota, Tennessee, and  
 12 Texas. *Id.* at 4. Plaintiffs do not seek certification of any of those claims based on a theory of  
 13 affirmative misrepresentation, or of their other surviving claims for unjust enrichment and for  
 14 breach of implied warranty under California's Song-Beverly Act and the laws of South Carolina,  
 15 South Dakota, and Texas. *See id.* at 3–4; *see also* Order Granting in Part & Denying in Part Mot.  
 16 to Dismiss 2d Consolidated Am. Compl. ("Feb. 2017 Order," dkt. 100)<sup>15</sup> at 10–11, 29; Order  
 17 Regarding Mot. to Strike & for Judgment on the Pleadings (dkt. 130)<sup>16</sup> (dismissing some but not  
 18 all of the implied warranty claims).

19 Plaintiffs argue that there is evidence common to the class because "Seagate made the  
 20 reliability of its drives a centerpiece of all its marketing campaigns" and internal Seagate  
 21 documents show that the drives were not as reliable as Seagate advertised, and because Seagate's  
 22 economic expert Stefan Boedeker determined that AFR is important to consumers of hard drives.  
 23 Mot. at 4–10. According to Plaintiffs, the following questions are common to the class:

24 Whether Seagate's failure to disclose the unreliability of its drives  
 25 was fraudulent, deceptive, and unfair;

26 \_\_\_\_\_  
 27 <sup>15</sup> *In re Seagate Tech. LLC Litig.*, 233 F. Supp. 3d 776 (N.D. Cal. 2017). Citations herein to the  
 Court's previous order refer to page numbers of the version filed in the Court's ECF docket.

28 <sup>16</sup> *In re Seagate Tech. LLC Litig.*, No. 16-CV-00523-JCS, 2017 WL 3670779, at \*1 (N.D. Cal.  
 Aug. 25, 2017)

1 Whether the average consumer was likely to be misled by Seagate's  
omissions about the drives' reliability and suitability;

2 Whether Seagate's omissions would have caused plaintiffs to act  
3 differently and not purchase the drives; and

4 Whether plaintiffs and the class have sustained damages and/or are  
entitled to restitution as a result of defendant's omissions.

5 *Id.* at 11. Plaintiffs do not specifically list the issue of whether the drives were unreliable as a  
6 common question, although the questions listed tend to implicate that issue. *See id.* Plaintiffs also  
7 argue that the proposed class is sufficiently numerous, and that the named plaintiffs are typical in  
8 that they relied on readily available marketing materials and are adequate to represent the class.

9 *Id.* at 10–11, 12–14.

10 In addition to the elements addressed above, which are relevant to the requirements of Rule  
11 23(a) of the Federal Rules of Civil Procedure, a class action must also satisfy one of the prongs of  
12 Rule 23(b). Plaintiffs here rely on Rule 23(b)(3), which requires that common issues of fact or  
13 law predominate over individual issues. *See Mot.* at 14. Plaintiffs contend that nationwide  
14 application of California law creates common issues of law and is appropriate in light of the facts  
15 that Seagate's headquarters is in California, decisions relevant to the case were made in California,  
16 class members returned defective drives to a distribution center in California, and other states do  
17 not have a significant interest in applying their own more restrictive laws to resident class  
18 members that would outweigh California's interest in applying its laws to a resident corporation  
19 like Seagate. *Id.* at 14–19. Regardless of whether the Court certifies a nationwide class based on  
20 California law or subclasses based on the laws of eight states, Plaintiffs argue that they would still  
21 use common evidence to show material omissions as to the reliability of the drives and to show  
22 damages. *Id.* at 19–22.

23 Finally, Plaintiffs contend that a class action is superior to other methods of adjudication  
24 (in part based on the relatively low prices of \$150 to \$250 for the products at issue), that the class  
25 is readily ascertainable, and that proposed class counsel of Hagens Berman Sobol Shapiro LLP  
26 would adequately represent the class. *Id.* at 23–25.

## 27 **2. Seagate's Opposition**

28 Seagate argues that Plaintiffs have not shown that their evidence is common to the

1 proposed class because its representations regarding the drives' AFR and suitability for RAID  
2 configurations were not in fact ubiquitous, and were specific to certain products incorporating the  
3 drives rather than directed to the ST300DM001 drive component found in those products. Opp'n  
4 (dkt. 156) at 5. According to Seagate, Plaintiffs' evidence shows only that Seagate published AFR  
5 specifications for two internal drive products during discrete periods, rather than over the entire  
6 class period, Plaintiffs erroneously rely on a draft product manual when no published product  
7 manual included a representation regarding AFR until 2015, and there is no evidence that Seagate  
8 ever made representations regarding the AFR of its external drive products. *Id.* at 5–6. Seagate  
9 also argues that it never included AFR specifications on product packaging and that its  
10 representations regarding suitability for RAID were similarly inconsistent. *Id.* at 6. To the extent  
11 that Plaintiffs rely on Seagate's affirmative representations to create a duty to disclose for the  
12 purpose of their omissions claims—which Seagate contends they must under California law  
13 because the information is not related to safety, based on *Wilson v. Hewlett-Packard Co.*, 668 F.3d  
14 1136 (9th Cir. 2012)—Seagate contends that its duty would be limited to those class members  
15 who saw the affirmative representations, and that Plaintiffs have not shown the sort of  
16 “widespread marketing campaign” that would support a classwide presumption of exposure and  
17 reliance. Opp'n at 9–11, 12.

18 As for the actual performance of the drives, Seagate contends that most of Plaintiffs'  
19 evidence relates to the external drive products, and that the evidence related to internal drives  
20 shows “[a]t most” that Seagate's “Grenada Classic” drives' AFR exceeded 1% at two points in  
21 2012, while documents show the AFR for those and other internal drives to be below 1% at other  
22 times. *Id.* at 7. Seagate disputes the reliability of Plaintiffs' expert Hospodor's methodology, but  
23 argues that even if Hospodor's methods are acceptable, he “admits his purported evidence of an  
24 ‘increasing’ Beta or AFR is limited to an eight-month period in 2011–2012.” *Id.* at 7–8. Seagate  
25 contends that much of the evidence that Hospodor presents as demonstrating unreliability of the  
26 drives—including “yields, ECRs, ship holds and the like”—does not show an AFR greater than  
27 1%, and regardless, only relates to the “Grenada Classic” drives in 2011 and 2012. *Id.* at 8. Based  
28 on the varying rates for drives at different times, as well as Seagate's contention that “Hospodor's

1 evidence shows that that [sic] the Granada BP and BP2 drives had AFRs of less than 1%,” Seagate  
2 argues that the “the alleged unreliability of the drives is not a common issue” and would require  
3 unworkable individualized determinations. *Id.* at 11.

4 Seagate also argues that the class representatives are atypical and inadequate. According to  
5 Seagate, the testimony from Plaintiffs Nelson, Schechner, Hagey, Manak, and Dortch that they  
6 relied on Seagate’s representations of AFR is “impossible . . . because *there is no evidence AFR*  
7 *representations were publicly available* at the time they purchased their Drives.” *Id.* at 12.  
8 Seagate contends that Schechner and Nelson’s purported reliance on representations regarding the  
9 internal Barracuda drives when purchasing external Backup Plus products is also atypical, even if  
10 true, because Seagate’s published materials did not indicate that the Backup Plus products  
11 included the same drives, and there is no evidence that other class members would have made that  
12 connection. *Id.* at 12–13. Seagate argues that Plaintiffs who claimed to have relied on  
13 representations regarding RAID suitability are atypical because several named plaintiffs did not  
14 rely on those representations and Plaintiffs’ own expert, Stefan Boedeker, determined that RAID  
15 is not important to most consumers. *Id.* at 13. Because all Plaintiffs purchased only the Barracuda  
16 or Backup Plus products, Seagate also contends that they are not typical of consumers who  
17 purchased the other ten products incorporating ST3000DM001 drives included in the class  
18 definition. *Id.* at 13–14.

19 Next, Seagate argues that common issues do not predominate because a nationwide  
20 application of California’s consumer protection laws is impermissible under the Ninth Circuit’s  
21 decision in *Mazza v. America Honda Motor Co.*, 666 F.3d 581 (9th Cir. 2012). Opp’n at 15–18.  
22 Seagate also argues that common issues would not predominate in a trial based on Plaintiffs’  
23 alternative proposal of eight state-based subclasses because the consumer protection laws of the  
24 states at issue offer different remedies and have different requirements for injury, deception,  
25 reliance, knowledge, and statutes of limitations, and because the consumer protection laws of  
26 South Carolina and Tennessee do not permit class actions. *Id.* at 19–20. Aside from the  
27 differences in law, Seagate contends that the issues discussed above regarding inconsistent  
28 exposure to advertising of AFR and RAID suitability, as well as questions of the materiality of and

1 class members' reliance on those assertions, also compel the conclusion that individual issues  
2 predominate. *Id.* at 20–22. Based on the combination of legal and factual issues to be decided,  
3 Seagate argues that the proposed class is neither manageable nor superior to other methods of  
4 adjudication. *Id.* at 22–23.

5 Finally, Seagate moves to strike both of Plaintiffs' experts' reports. *Id.* at 23–25. With  
6 respect to Stefan Boedeker, Seagate asserts in a conclusory fashion that his "conjoint study . . . is  
7 so fundamentally flawed in its conception and execution as to render Boedeker's report and  
8 conclusions inadmissible under *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993),"  
9 with no further explanation except for a citation to Seagate's expert Itamar Simonson's report.  
10 Opp'n at 23. Seagate goes on to argue that Boedeker's approach of attributing the market price of  
11 the drives at issue to Seagate's representations regarding AFR and RAID, even where some  
12 customers were not exposed to those representations, is contrary to law requiring "plaintiffs 'to  
13 show [that] their damages *stemmed from* [the] defendant's actions that created the legal liability.'" *Id.*  
14 (quoting *Leyva v. Medline Indus., Inc.*, 716 F.3d 510, 514 (9th Cir. 2013)) (words in brackets  
15 in original but erroneously omitted from Seagate's brief). As for Andrew Hospodor's report,  
16 Seagate argues that his testimony does not sufficiently relate to the class as whole because he  
17 offers "only 'examples'" rather than an opinion common to the class period and the different  
18 products at issue, that much of his report is improper interpretation of documents that speak for  
19 themselves and could be understood by a layperson, and that his criticism of Seagate's method of  
20 calculating AFR "is not the product of accepted principles of reliability . . . correctly applied to  
21 Seagate's documents and data." *Id.* at 24–25.

### 22 **3. Plaintiffs' Reply**

23 Plaintiffs argue in their reply brief that their omission claims are actionable under  
24 California law even absent any corresponding affirmative representations because the unreliability  
25 of the drives was a material fact within Seagate's exclusive knowledge and which Seagate actively  
26 concealed from purchasers. Reply (dkt. 158) at 2–3 (citing *Gutierrez v. CarMax Auto Superstores*  
27 *Cal.*, 19 Cal. App. 5th 1234 (2018)). Plaintiffs do not address *Wilson*, where the Ninth Circuit  
28 interpreted California law as requiring a connection to safety for pure omissions claims (at least

1 outside of an express warranty period), but they argue that to the extent that Seagate relies on  
2 *Mazza*, “a federal court cannot overrule the substantive law of a state court.” *Id.* at 3. According  
3 to Plaintiffs, there is evidence of drive unreliability throughout the class period, including “at least  
4 19 ship holds,” a “high rate of engineer change requests (ECRs),” the Apple recall, and the  
5 Backblaze failure rates. *Id.* at 5–6.

6 Plaintiffs also contend that Seagate’s partial representations constitute “an alternative  
7 theory of liability,” because it is “uncontested that when Seagate made AFR representations  
8 regarding the drives purchased by the class, those representations were always that the failure rates  
9 were <1%.” *Id.* at 6. According to Plaintiffs, California law does not require that all class  
10 members have seen a partial representation in order to establish a classwide duty to disclose based  
11 on that representation. *Id.* at 7 (citing *Rutledge v. Hewlett-Packard Co.*, 238 Cal. App. 4th 1164,  
12 1176 (2015)).

13 Plaintiffs dispute Seagate’s argument that the named plaintiffs are atypical of the class. *Id.*  
14 at 7–8. According to Plaintiffs, the Court should accept their testimony that they relied on  
15 Seagate’s AFR representations, which were available at least in Seagate’s “Storage Solutions  
16 Guide” when the named plaintiffs purchased their drives. *Id.* at 7 & n.23. Plaintiffs also contend  
17 that they are not atypical because there is no need for a plaintiff to have seen any affirmative  
18 representation to bring an omissions claim under California law. *Id.* at 7–8. In response to  
19 Seagate’s contention that Plaintiffs are not typical of consumers who purchased different products  
20 included in the class definition, or that it was atypical for Schechner and Nelson to rely on  
21 representations about the Barracuda product when purchasing Backup Plus products, Plaintiffs  
22 argue that they satisfy “Rule 23(a)’s permissive standards” because “[a]ll of these drives are the  
23 same drives.” *Id.* at 8.

24 With respect to choice of law, Plaintiffs argue that applying California to a nationwide  
25 class is appropriate because Seagate has not met its burden to show that other states’ laws should  
26 apply. *Id.* at 8–11. Rather than distinguish the Ninth Circuit’s *Mazza* decision, Plaintiffs argue  
27 only that “the Ninth Circuit cannot change the substantive law of California,” and cite California  
28 decisions predating *Mazza* for the applicable test for choice of law. *Id.*

1 Even if the Court declines to certify a nationwide class, Plaintiffs argue that certifying  
2 eight state-based subclasses would be manageable and appropriate. *Id.* at 11–14. Plaintiffs  
3 contend that the differences in state law identified by Seagate are not significant, and that the  
4 Supreme Court has held that state laws prohibiting class actions yield to Rule 23 in actions  
5 brought in federal court. *Id.* at 12–13 (citing *Shady Grove Orthopedic Assocs., P.A. v. Allstate Ins.*  
6 *Co.*, 559 U.S. 393 (2010)).

7 Plaintiffs oppose Seagate’s request to strike Plaintiffs’ experts’ reports, arguing that  
8 another judge of this Court recently declined to strike a similar report by Boedeker, that  
9 Hospodor’s report pertains to the class period as a whole, and that Hospodor’s expertise is useful  
10 to understand Seagate’s internal technical documents containing specialized jargon and shorthand.  
11 *Id.* at 14–15.

#### 12 **4. Seagate’s Administrative Motion to Strike and Surreply**

13 Seagate moves to strike portions of Plaintiffs’ reply, or in the alternative to file a surreply,  
14 on the basis that Plaintiffs did not clearly articulate in their motion, and throughout this litigation,  
15 a theory of pure omissions as opposed to a duty to disclose based on affirmative statements. *See*  
16 *generally* Mot. to Strike (dkt. 161) & Ex. A (proposed surreply). Seagate contends that there is a  
17 split of authority as to the scope of omissions claim and duties of disclosure under California law,  
18 and the better reading of California law is that Seagate would have no duty to disclose defects  
19 related to its hard drives absent affirmative representations. *See id.* Ex. A. Because this order  
20 declines to reach the question of whether affirmative misrepresentations would be necessary to  
21 trigger such a duty, Seagate’s administrative motion is DENIED as moot.

#### 22 **5. Plaintiffs’ Supplemental Brief and Evidence**

23 Plaintiffs move to file additional evidence and a supplemental brief drawn from and  
24 addressing documents that Seagate did not disclose until after briefing on the present motion was  
25 complete. *See generally* Mot. to File Supp’l Br. (dkt. 167); Supp’l Br. (dkt.167-3); Berman Supp’l  
26 Decl. (dkt. 167-4). Seagate filed an opposition to Plaintiffs’ administrative motion, but argues  
27 primarily that the documents do not support class certification, with no explanation for why it did  
28 not produce the documents in time for briefing on the present motion except that discovery had

1 not yet closed. *See* Opp'n re Supp'l Br. (dkt. 170-4). The Court GRANTS Plaintiffs'  
2 administrative motion to file supplemental materials, but as discussed below, does not find those  
3 materials sufficient to show that the class or subclasses, as currently proposed by Plaintiffs,  
4 warrant certification.

### 5 **III. ANALYSIS**

#### 6 **A. Legal Standard**

7 In the federal courts, class actions are governed by Rule 23 of the Federal Rules of Civil  
8 Procedure. Under that rule, a party seeking class certification must demonstrate that “(1) the class  
9 is so numerous that joinder of all members is impracticable; (2) there are questions of law or fact  
10 common to the class; (3) the claims or defenses of the representative parties are typical of the  
11 claims or defenses of the class; and (4) the representative parties will fairly and adequately protect  
12 the interests of the class.” Fed. R. Civ. P. 23(a). Further, although not explicitly discussed in the  
13 Rule, “an implied prerequisite to class certification is that the class must be sufficiently definite;  
14 the party seeking certification must demonstrate that an identifiable and ascertainable class exists.”  
15 *Xavier v. Philip Morris USA Inc.*, 787 F. Supp. 2d 1075, 1089 (N.D. Cal. 2011). In short, a party  
16 must show numerosity, commonality, typicality, adequacy, and ascertainability.

17 A proposed class must also satisfy at least one of the subsections of Rule 23(b). Plaintiffs  
18 in this action invoke Rule 23(b)(3), which provides that a class that meets the requirements of  
19 Rule 23(a) may be certified where “questions of law or fact common to class members  
20 predominate over any questions affecting only individual members, and that a class action is  
21 superior to other available methods for fairly and efficiently adjudicating the controversy.” Fed.  
22 R. Civ. P. 23(b)(3).

23 “The class action is an exception to the usual rule that litigation is conducted by and on  
24 behalf of the individual named parties only.” *Wal-Mart Stores, Inc. v. Dukes*, 131 S. Ct. 2541,  
25 2550 (2011) (internal quotation marks and citation omitted). “In order to justify a departure from  
26 that rule, a class representative must be part of the class and possess the same interest and suffer  
27 the same injury as the class members.” *Id.* “A party seeking class certification must affirmatively  
28 demonstrate his compliance with [Rule 23]—that is, he must be prepared to prove that there are *in*

1 *fact* sufficiently numerous parties, common questions of law or fact, etc.” *Id.* at 2551. “Rule 23  
2 does not set forth a mere pleading standard.” *Id.*

3 “Before certifying a class, the trial court must conduct a ‘rigorous analysis’ to determine  
4 whether the party seeking certification has met the prerequisites of Rule 23.” *Mazza v. Am. Honda*  
5 *Motor Co., Inc.*, 666 F.3d 581, 588 (9th Cir. 2012) (citation omitted). Such analysis, however, is  
6 not a “license to engage in free-ranging merits inquiries [regarding the ultimate outcome of the  
7 case] at the certification stage.” *Amgen Inc. v. Conn. Ret. Plans & Trust Funds*, 133 S. Ct. 1184,  
8 1194–95 (2013). Rather, “[m]erits questions may be considered to the extent—but only to the  
9 extent—that they are relevant to determining whether the Rule 23 prerequisites for class  
10 certification are satisfied.” *Id.* (citation omitted).

#### 11 **B. Choice of Law**

12 One overarching issue that the parties dispute here is whether a nationwide class can bring  
13 claims under California’s consumer protection laws on the facts of this case. The leading decision  
14 of the Ninth Circuit addressing the scope of California law as applied to nationwide consumer  
15 classes is *Mazza v. American Honda Motor Co., Inc.*, 666 F.3d 581, 589–94 (9th Cir. 2012). As in  
16 this case, the defendant in *Mazza* was headquartered in California and sold the products at issue  
17 throughout the United States. *Id.* at 585 (discussing “the 43 other jurisdictions in which class  
18 members purchased or leased” the vehicles at issue); *id.* at 590 (“... Honda’s corporate  
19 headquarters, the advertising agency that produced the allegedly fraudulent misrepresentations,  
20 and one fifth of the proposed class members are located in California.”).

21 The district court had certified a nationwide class for claims based on defective Acura RL  
22 vehicles, but the Ninth Circuit reversed, holding that although California had a “sufficient  
23 aggregation of contacts to the claims of each putative class member” such that application of  
24 California law would be constitutionally permissible, California’s own choice of law test did not  
25 allow such an outcome. *Id.* at 589–90. With respect to conflict of laws, the court held that  
26 different requirements of scienter and reliance, as well as different remedies available, under  
27 different states’ consumer protection laws were material. *Id.* at 590–91. With respect to the  
28 interests of different jurisdictions, the court held that “states may permissibly differ on the extent

1 to which they will tolerate a degree of lessened protection for consumers to create a more  
2 favorable business climate,” and that the district court had erred in only considering states’  
3 interests in protecting consumers rather than also accounting for their interests in shielding  
4 businesses from litigation. *Id.* at 591–93. Finally, with respect to which state’s interest would be  
5 more impaired by declining to apply its law, the Ninth Circuit quoted a California appellate  
6 decision for the proposition that ““with respect to regulating or affecting conduct within its  
7 borders, the place of the wrong has the predominant interest,”” and held that the interests of states  
8 where the transactions at issue took place outweighed California’s “attenuated” “interest in  
9 applying its law to residents of foreign states,” as well as California’s interest in regulating the  
10 conduct of a business headquartered in California to the extent that such conduct affects other  
11 states. *Id.* at 593–94 (quoting *Hernandez v. Burger*, 102 Cal. App. 3d 795, 802 (1980)).

12 The Ninth Circuit notably did not remand for the district court to more fully weigh the  
13 considerations at issue. Instead, it held “that each class member’s consumer protection claim  
14 should be governed by the consumer protection laws of the jurisdiction in which the transaction  
15 took place.” *Id.* at 594. The Ninth Circuit “express[ed] no view whether on remand it would be  
16 correct to certify a smaller class containing only those who purchased or leased Acura RLs in  
17 California, or to certify a class with members more broadly but with subclasses for class members  
18 in different states, with different jury instruction for materially different bodies of state law.” *Id.*

19 There is no meaningful distinction between this case and *Mazza* as to choice of law.  
20 Rather than identify any such distinction, Plaintiffs argue that Seagate’s reliance on *Mazza* is  
21 unavailing because “the Ninth Circuit cannot change the substantive law of California, and this  
22 Court is bound by decisions of the state’s highest court.” Reply at 11. All of the California cases  
23 that Plaintiffs cite in response to Seagate’s argument on this point predate *Mazza*. Reply at 8–11.  
24 While a federal court may depart from otherwise binding Ninth Circuit authority as to state law  
25 when *intervening* decisions by the state courts call the Ninth Circuit’s interpretation into question,  
26 what Plaintiffs ask of the Court here is to hold that the Ninth Circuit was simply wrong as to the  
27 state of the law *at the time* of the *Mazza* decision, and by implication, also when it recently cited  
28 *Mazza*’s analysis of this issue with approval in *In re Hyundai & Kia Fuel Economy Litigation*, 881

1 F.3d 679, 692–93 (9th Cir. 2018). The primacy of state court interpretation of state law does not  
2 render federal court of appeals decisions merely advisory with respect to district courts. Absent  
3 *more recent* decisions by California courts that undermine *Mazza*, this Court is bound by that  
4 decision, and Plaintiffs have not identified any basis for distinguishing it. *See Owen ex rel. Owen*  
5 *v. United States*, 713 F.2d 1461 (9th Cir. 1983) (stating that a Ninth Circuit panel decision  
6 interpreting state law was “was only binding in the absence of any *subsequent* indication from the  
7 California courts that [its] interpretation was incorrect” (emphasis added)). Plaintiffs’ apparent  
8 argument that *Mazza* was incorrectly decided would be more properly addressed to an en banc  
9 panel of the Ninth Circuit than to this Court.

10 As the Court previously noted in denying Seagate’s motion to strike, “*Mazza* itself  
11 declined to set a strict rule against certifying nationwide consumer classes under California law.”  
12 Order re Mot. to Strike at 7 (citing *Mazza*, 666 F.3d at 594). But that does not mean *Mazza* is  
13 irrelevant. Seagate has met its burden to show that foreign law should apply by arguing that other  
14 states have a significant interest in regulating transactions within their borders and that the Ninth  
15 Circuit has held that interest to predominate on similar facts in *Mazza*. Since Plaintiffs have not  
16 identified any meaningful difference between the facts of this case and *Mazza*, the motion to  
17 certify a nationwide class applying California law is DENIED.

### 18 **C. State-Based Subclasses**

19 In the alternative, Plaintiffs seek to certify eight subclasses of consumers in the states  
20 where the named plaintiffs purchased their Seagate drives, applying the laws of each state to its  
21 respective subclass. Mot. at 19; Reply at 11–14. Seagate opposes that approach based on what it  
22 contends, and Plaintiffs dispute, are material differences among the laws of the eight states. *See*  
23 *Opp’n* at 19–20; Reply at 12–13.

24 There is no distinction in the *conduct* at issue across the eight states. Although, as  
25 discussed below, Plaintiffs face significant hurdles in defining classes or subclasses that account  
26 for variation over time and across different products, the reliability of the products purchased and  
27 the representations to which consumers were exposed did not depend on the state where a  
28 consumer purchased the product. The evidence to be presented therefore would not vary

1 significantly among the proposed subclasses. To the extent that the subclasses would require  
2 different jury instructions and verdict forms, such issues are manageable for a set of eight states  
3 with at least partially overlapping consumer protection statutes, and the Court is satisfied that the  
4 common issues of fact would predominate over any variation in issues of law. *See, e.g., In re*  
5 *MyFord Touch Consumer Litig.*, No. 13-CV-03072-EMC, 2016 WL 7734558, at \*28 (N.D. Cal.  
6 Sept. 14, 2016) (holding that certification of seven state-based subclasses was “not obviously  
7 unmanageable” and was appropriate under Rule 23(b)(3)), *modified as to other issues on*  
8 *reconsideration*, 2016 WL 6873453 (Nov. 22, 2016). Seagate cites no case declining to certify  
9 subclasses based on comparable variation in state law.

10 Seagate briefly raises arguments that Plaintiffs cannot proceed under the laws of certain  
11 states, either because the claims of named plaintiffs from those states are time barred or because  
12 the state consumer protection laws do not permit class actions. Opp’n at 20 & n.21. Plaintiffs  
13 briefly respond that questions of tolling statutes of limitations are common to the class and that the  
14 Supreme Court’s decision in *Shady Grove* calls for application of Rule 23 rather than the states’  
15 prohibitions of class actions. Reply at 13 & nn.58–61. Having both focused their arguments  
16 primarily on the question of a nationwide class, neither has addressed these issues in sufficient  
17 detail, including whether the particular named plaintiffs are in fact entitled to tolling (and thus  
18 adequate to represent the class), as well as whether the particular state laws at issue are the type of  
19 procedural law that yields to Rule 23 under *Shady Grove*. *See MyFord Touch*, 2016 WL 7734558,  
20 at \*26–27 (conducting a nuanced analysis of different state law class action limitations based on  
21 Justice Stevens’s separate opinion in *Shady Grove* and holding that Colorado’s limitation was  
22 operative in federal court while Virginia’s limitation was not). Because the Court holds below  
23 that the current proposed class does not satisfy Rule 23 based on the time period and range of  
24 products included, the Court need not resolve these issues of New York, Texas, South Carolina,  
25 and Tennessee state law, or any other potential defenses under state law, on the present motion.

26 **D. There Is No Common Evidence Regarding Suitability for RAID**

27 Although Plaintiffs include Seagate’s failure to disclose that the drives purportedly were  
28 not suitable for at least certain RAID configurations as one of the claims for certification, it is not

1 a focus of their arguments, and Plaintiffs have not met their burden to show that issues common to  
 2 the class predominate as to such a claim. Most significantly, Plaintiffs have not offered a  
 3 sufficient method of showing on a classwide (or subclasswide) basis that suitability for RAID was  
 4 material to consumers. Only five of the eight named plaintiffs state that they relied on RAID  
 5 capabilities when purchasing the drives, *see* Opp'n at 13 (discussing Plaintiffs' allegations and  
 6 evidence), and Plaintiffs' own economic expert determined that any effect on the value consumers  
 7 placed on a drive based on RAID capability was minor and within the margin of error of the value  
 8 attributable to AFR, *see* Boedeker Decl. ¶ 158; Payne Decl. Ex. 23 (Boedeker Dep.) at 284:11–17  
 9 (“[T]he RAID, actually was not very important and numbers showed it.”). Neither Plaintiffs'  
 10 reply brief nor Boedeker's reply declaration mention RAID, all but conceding that the issue is not  
 11 a basis for class certification.<sup>17</sup> Plaintiffs have not offered any manageable method to determine  
 12 which class members were harmed by this purported omission. The Court therefore DENIES  
 13 Plaintiffs' motion to certify a class or subclasses based on failure to disclose that drives were  
 14 unsuitable for RAID.

15 **E. Common Issues Do Not Predominate as to the Drives' AFR**

16 The focus of Plaintiffs' motion is certification of a class based on Seagate's failure to  
 17 disclose that drives were unreliable and had high failure rates. *See* Reply at 1 (“What Seagate  
 18 failed to disclose to consumer was that these drives were suffering from failure rates far exceeding  
 19 its advertisements and far exceeding industry rates.”).

20 Although the parties devote much of their arguments to the question of whether Plaintiffs  
 21 must show and have shown classwide affirmative statements as to the drives' reliability that give  
 22 rise to a duty to disclose under California law, the Court declines to reach that question. The  
 23 viability of a “pure omissions” claim under California law, as interpreted by the Ninth Circuit, is  
 24 currently in flux, with a panel of the Ninth Circuit acknowledging less than two weeks before the  
 25 hearing in this case that “recent California cases do cast doubt on” the Ninth Circuit's *Wilson*

26  
 27  
 28 <sup>17</sup> Hospodor's rebuttal declaration briefly notes in its first paragraph Hospodor's conclusion that  
 the drives were unsuitable for RAID, but does not present any basis for concluding that class  
 members considered representations regarding RAID to be material to their purchasing decisions.

1 decision, which held that a duty to disclose generally requires an affirmative statement (outside of  
2 circumstances not applicable here such as information related to safety). *See Hodsdon v. Mars,*  
3 *Inc.*, 981 F.3d 857, 861–62 (9th Cir. 2018) (calling into doubt *Wilson*, 668 F.3d 1136, and citing  
4 *Rutledge v. Hewlett-Packard Co.*, 238 Cal. App. 4th 1164 (2015); *Collins v. eMachines, Inc.*, 202  
5 Cal. App. 4th 249 (2011)). As the *Hodsdon* panel acknowledged, “*Collins* and *Rutledge* are  
6 somewhat vague about the test for determining whether a defendant has a duty to disclose.” *Id.* at  
7 863. Accordingly, the test for “pure omission” product defect claims remains unclear after the  
8 apparent demise of *Wilson*, and the Court declines to resolve that issue on the present motion.<sup>18</sup>  
9 Moreover, the parties have not meaningfully addressed the requirements for a duty to disclose  
10 giving rise to an omissions claim under the laws of other states that would be applied to the  
11 proposed non-California subclasses.

12 The clearer deficiency here is that Plaintiffs have not presented classwide proof from  
13 which a finder of fact could conclude that the drives’ AFR was higher than Seagate represented, or  
14 otherwise sufficiently high to support Plaintiffs’ claims, across the full span of the class period and  
15 various products at issue. As a starting point, the Court limits this inquiry to the drives’ AFR, as  
16 opposed to more general concepts of unreliability. The Court’s previous order dismissed  
17 Plaintiffs’ claim that advertisements of “reliability” and similarly vague promotions were  
18 actionable affirmative misrepresentations, holding instead that they were “too vague, general, and  
19 subjective to be actionable.” Feb. 2017 Order at 20–23. That order also allowed Plaintiffs to  
20 proceed on their omissions claims only with respect to failure to disclose information “sufficiently

21 \_\_\_\_\_  
22 <sup>18</sup> At the hearing, counsel for Seagate asserted that under Judge Koh’s decision in *Punian*—a case  
23 not cited in Seagate’s brief—a plaintiff bringing a claim for failure to disclose product defects  
24 must identify the particular design or manufacturing defect that caused the product not to perform  
25 as expected. In that case, which involved batteries allegedly prone to leakage, the failure to  
26 identify the cause of leakage was merely one of many shortcomings of the complaint: “In sum,  
27 Plaintiff has not alleged the cause of any defect in Duralock Batteries, the impact of battery  
28 leakage on the battery, the likelihood that Duralock Batteries will leak, that consumers had any  
expectations about the leakage rate or potential to fail of Duralock Batteries, or that any of  
Plaintiff’s Duralock Batteries have failed.” *Punian v. Gillette Co.*, No. 14-CV-05028-LHK, 2016  
WL 1029607, at \*15 (N.D. Cal. Mar. 15, 2016); *see also id.* at \*11 (“Nor does Plaintiff allege that  
there is a significant, substantial, likely, or particular rate of failure for Duralock Batteries.”). It is  
not clear that failure to identify the cause of leakage would in itself have been fatal to the claims in  
that case if the plaintiff had alleged more specifically the batteries’ propensity to leak, the failure  
rate resulting from such leakage, or consumer expectations regarding battery leakage.

1 tied to the alleged misrepresentations regarding AFR and RAID capabilities.” *Id.* at 25. The  
 2 Court now clarifies that the scope of permissible omissions claims does not extend to the inverse  
 3 of the concepts dismissed as puffery—just as Seagate cannot be held liable for advertising its  
 4 drives as “reliable,” Plaintiffs may not proceed on a claim that Seagate should have disclosed that  
 5 the drives were “unreliable.” Plaintiffs must identify a specific fact or metric that Seagate failed to  
 6 disclose. In light of the holding above regarding RAID, the only remaining omission addressed in  
 7 Plaintiffs’ motion that meets that standard is AFR.

8 Plaintiffs have not submitted documentary evidence showing the drives’ AFR across the  
 9 entire proposed class period from the drives’ introduction in 2011 through February 1, 2016.  
 10 Instead, they rely on documents showing AFR at specific times, and over relatively short periods  
 11 of a few months, during roughly the first two years of the drives’ production, and look to more  
 12 circumstantial evidence for the remaining period, such as ECRs, shipping holds, concerns  
 13 expressed by OEM customers, internal comments by Seagate employees, and drive failures in  
 14 non-consumer settings like those documented by Backblaze. Plaintiffs rely on their expert witness  
 15 Andrew Hospodor to tie those anecdotes together into common proof.

16 Hospodor’s declarations have significant flaws.<sup>19</sup> On a fundamental level, large portions  
 17 of his declarations merely summarize Seagate documents and advertisements, some of which  
 18 Hospodor conceded at his declaration would not require any expertise to understand, *see* Payne  
 19 Decl. Ex. 11 (Hospodor Dep.) at 315:22–317:13, and many of which are not included in the record  
 20 before the Court. Such summaries are not expert opinion within the meaning of *Daubert* and Rule  
 21 702 of the Federal Rules of Evidence—they are hearsay.<sup>20</sup> Hospodor also conceded at his  
 22 deposition that he had reached no conclusion as to the AFR of the drives after 2013, or whether  
 23

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24 <sup>19</sup> The following statement from Hospodor’s deposition encapsulates some of the issues with his  
 25 declarations: “I think there are lots of opinions that are floating around in my head, some of which  
 26 are scattered, some of which may or may not make sense. I tried to write a report that was not  
 27 comprehensive but one that was exemplary and explained the basis for my opinions and provided  
 28 the evidence that I had for Seagate not reaching their AFR target of 1 percent.” Payne Decl. Ex.  
 11 (Hospodor Dep.) at 225:9–17.

<sup>20</sup> While Seagate’s expert witness Adams also devotes much of his declaration to summarizing  
 documents and testimony, Seagate at least provided the sources on which Adams relies. To the  
 extent that Adams’s summaries are not admissible expert testimony, the Court can rely on the  
 underlying documents themselves to reach the same conclusions.

1 the AFR had increased or decreased after April of 2012. *Id.* at 52:3–18; 128:15–129:5; 224:15–  
2 225:4. To the extent that Hospodor’s declarations could be read as stating an opinion that the  
3 AFR of the drives was consistently above 1% throughout the proposed class period, such an  
4 opinion is contrary to his deposition testimony and not based on any discernable “reliable  
5 principles and methods.” *See* Fed. R. Civ. P. 702(c). Hospodor also appears to have simply  
6 misunderstood a number of the documents summarized in his initial declaration, as evidenced by  
7 the lack of any response to Seagate’s witnesses’ criticism of his conclusions. *See, e.g.*, Almgren  
8 Decl. ¶ 29 & fig. 2 (explaining that a chart that Hospodor described as showing increasing year-  
9 over-year AFR for the Grenada BP2 drive in fact showed increasing *aggregate* failure rate over  
10 time—which is presumably unavoidable unless drives stopped failing entirely at some point—and  
11 *decreasing* annualized failure rates); Adams Decl. ¶¶ 72–73 (stating that Hospodor improperly  
12 compared “raw AFR” for some drives to “reduced AFR” for other drives, and improperly used a  
13 series of tests on different sets of drives to form an opinion regarding the drives’ Weibull beta  
14 parameter, which would properly require looking at whether the failure rate for the same set of  
15 drives increased or decreased over time).

16 Even assuming for the sake of argument that Hospodor’s declarations are largely  
17 admissible, and that a finder of fact could rely on those declarations to find that Seagate’s drives  
18 failed to meet advertised or expected AFRs throughout the class period, reaching such a  
19 conclusion would still require a level of individualized inquiry for which Plaintiffs have proposed  
20 no manageable plan to resolve. The differences among the drives at issue—or at least the  
21 evidence available to evaluate the drives at issue—are numerous. As a starting point, Seagate  
22 applied different standards to its internal and external drives, requiring only 100,000 hours MTBF  
23 for SBS external drives while holding internal drives to a higher standard based on AFR, and  
24 anticipating low annual usage of external products.<sup>21</sup> *See, e.g.*, Adams Decl. ¶¶ 55–56. Hospodor  
25 contends that Seagate should have held its external drives to higher standards because some of  
26 them were intended for use in more demanding roles than merely as backup drives, Hospodor

27 \_\_\_\_\_  
28 <sup>21</sup> Anticipated usage is relevant to AFR because one component of the AFR calculation is the  
number of hours a drive is expected to be powered on each year.

1 Rebuttal Decl. ¶¶ 67–72, but even if the finder of fact ultimately agreed with him, that  
2 determination would require inquiries into the usage, marketing, and expectations related to a  
3 number of different external products not common to the class as a whole. The dispute as to  
4 whether the Internal Drive Kit (also referenced as the Internal Retail Kit) was an SBS product held  
5 to the same standards as external drives or a disty product held to the same standards as other  
6 internal drives similarly highlights an individualized question not applicable to the class as a  
7 whole. *Compare* Dewey Decl. ¶ 7 with Hospodor Rebuttal Decl. ¶¶ 73–76.

8 The various generations of the ST300DM001 drive present another fairly clear distinction  
9 within the proposed class. Hospodor himself relies on evidence specific to different versions of  
10 the drive to show the AFR of those drives, even within the early period for which he presents  
11 direct evidence of AFR. *Compare* Hospodor Rebuttal Decl. ¶¶ 42–44 & figs. 5–6 (addressing  
12 charts related to the Grenada Classic, showing AFRs ranging from 0.73% to 2.66%), *with id.*  
13 ¶¶ 44–46 & figs. 7–9 (addressing charts related to the Grenada BP, showing AFRs ranging from  
14 0.88% to 1.5%). The inquiry becomes more complex for later periods, where Hospodor did not  
15 draw a concrete conclusion as to AFR. *See* Payne Decl. Ex. 11 (Hospodor Dep.) at 128:19–129:5  
16 (stating that Hospodor did not reach a conclusion as to the AFR of drives produced after early  
17 2013). If a finder of fact were to credit, for example, Hospodor’s conclusion that the number of  
18 ECRs was abnormally large and evinced an unreliable product, and assuming for the sake of  
19 argument that could support an inference that the Grenada Classic and Grenada BP drives had  
20 sufficiently high AFRs to give rise to some sort of duty to disclose, the finder of fact might not  
21 reach the same conclusion for the Grenada BP2, for which Plaintiffs offer no evidence of the  
22 number of ECRs. *See* Hospodor Decl. ¶¶ 129–36 & figs. 18–20; Hospodor Rebuttal Decl. ¶¶ 77–  
23 96. The finder of fact might also be less inclined to conclude that later-produced Grenada Classic  
24 and Grenada BP drives had actionable undisclosed AFRs after the number of ECRs dropped to  
25 nearly zero in mid-2013 and mid-2014, respectively. *See* Hospodor Decl. ¶ 131 & fig. 19;  
26 Hospodor Rebuttal Decl. ¶ 94 & fig. 19. Hospodor does not address whether the reduced number  
27 of ECRs later in the production life of those drives suggests increased reliability, or at what  
28 threshold such a conclusion would be appropriate.

1           The shipping holds and the Apple recall raise similar issues. Hospodor states the shipping  
2 holds are significant because Seagate recognized that its drives were not meeting reliability  
3 standards and that there is evidence some such drives nevertheless reached consumers before the  
4 holds were put in place. *See, e.g.*, Hospodor Rebuttal Decl. ¶¶ 6–9. Assuming for the sake of  
5 argument that a finder of fact might conclude based on Hospodor’s declarations and the evidence  
6 cited therein that the drives that were shipped to consumers had an abnormally high AFR and that  
7 Seagate owed a duty of disclosure to such customers, neither Hospodor’s declarations nor  
8 Plaintiffs’ briefs address how that is classwide evidence applicable to drives shipped after Seagate  
9 resolved the issue that led to the shipping hold, nor do Plaintiffs address how the currently  
10 proposed subclasses could account for a determination that Seagate omitted material information  
11 about the AFR of pre-hold drives it failed to catch but owed no duty related to drives with  
12 improved reliability after the hold was lifted. Along the same lines, with respect to the Apple  
13 recall in 2015, Hospodor states that Seagate sold at least 850,000 drives affected by the same  
14 defect to consumers. Hospodor Decl. ¶ 190 & fig. 30. According to a Seagate email quoted in  
15 Hospodor’s declaration, 95% of the drives returned to Apple were produced before May of 2013,  
16 suggesting that Seagate’s design modification intended to fix that issue was effective. *Id.* ¶ 183,  
17 188. Plaintiffs do not explain how consumers who purchased drives affected by that issue are  
18 similarly situated to consumers who received drives produced after the issue was resolved. The  
19 same can be said for Seagate’s firmware updates: Hospodor describes some of those as addressing  
20 serious issues that could cause drives to fail, *see id.* ¶¶ 164–68, but assuming that evidence is  
21 relevant, Plaintiffs do not explain how it is common to class members who purchased drives after  
22 the firmware was updated to resolve the issues.

23           The evidence submitted with Plaintiffs’ supplemental brief does not resolve these issues.  
24 Those documents largely consist of complaints from commercial customers using the drives in  
25 non-consumer settings, or internal Seagate discussions of such complaints. *See generally* Berman  
26 Supp’l Decl. The documents themselves highlight differences in performance between different  
27 generations of the drives. *E.g., id.* Ex. 62 (October 2014 email stating that “[e]arly 2012 vintage  
28 Grenada has a 2x Field return rate over current drives,” and comparing a return rate of

1 approximately 0.7% for early 2012 OEM drives to a rate of 0.3% for the Grenada BP drives).  
2 Moreover, to the extent that—as Plaintiffs assert in their supplemental brief—such documents  
3 prove Seagate’s knowledge that its drives were unreliable, such proof is not classwide, because  
4 correspondence that Seagate received or produced internally later in the class period does not  
5 show knowledge relevant to class members who purchased drives before the date of such  
6 correspondence. *Cf.* Supp’l Br. at 4 (asserting that “[a]ll of this evidence is common to the class  
7 and demonstrates Seagate’s knowledge of the unreliability of its drives”).

8 The issue here is *not* whether Plaintiffs have produced, in aggregate, evidence on which a  
9 finder of fact could conclude that Seagate actionably failed to disclose material facts as to the AFR  
10 of all of the products at issue throughout the entire class period. This is not a motion for summary  
11 judgment, and the Court need not resolve that question. The issue for class certification under  
12 Rule 23(b)(3) is whether Plaintiffs have shown that common issues predominate, taking into  
13 account “the likely difficulties in managing a class action.” *See* Fed. R. Civ. P. 23(b)(3)(D).  
14 Based on the current record and proposed class definition, they do not: there is virtually no  
15 evidence of drive AFR—or even any purported indicia of unreliability from which AFR might  
16 conceivably be inferred—that would be common to, for example, the claim of a class member  
17 who purchased a Grenada Classic external drive product in 2011 and the claim a class member  
18 who purchased a Grenada BP2 internal drive product in 2015. Even assuming that it would be  
19 manageable simply to present all of the evidence that Plaintiffs believe is relevant across the class  
20 period and range of products, Plaintiffs have not addressed any plan to manage potentially  
21 different determinations of whether the AFRs of various drives were higher than Seagate  
22 represented or consumers expected across different permutations of timing, product modifications,  
23 drive generations, and products intended for different purposes, or whether the named plaintiffs  
24 are typical or adequate to represent the various subclasses that might emerge from attempting to  
25 address those variations. Without any such plan available, the Court concludes that common  
26 issues do not predominate among the proposed class and subclasses, and that the proposed class  
27 action would be unmanageable. Plaintiffs’ motion is therefore DENIED.

28 Given the relatively low value of the individual products at issue and the fact that

1 individual litigation may not be viable, as well as the possibility that a narrower class or subclasses  
 2 could rely on common evidence to bring a claim, the Court denies the motion without prejudice to  
 3 Plaintiffs moving to certify a narrower class or better-defined subclasses.

#### 4 **IV. MOTIONS TO FILE DOCUMENTS UNDER SEAL**

5 Both parties have filed numerous motions to file documents related to the present motion  
 6 under seal, all of which are based on Seagate’s claims of confidentiality.<sup>22</sup> Seagate contends that a  
 7 “good cause” standard applies to documents submitted in the context of class certification motions  
 8 because such motions are non-dispositive, citing decisions from within this district. *See, e.g.*, dkt.  
 9 155 at 3–4 (citing, *e.g.*, *In re High-Tech Emp. Antitrust Litig.*, No. 5:11-cv-02509-LHK, 2013 WL  
 10 5486230, at \*2 n.1 (N.D. Cal. Sept. 30, 2013); *Dugan v. Lloyds TSB Bank, PLC*, No. 12-cv-02549-  
 11 WHA (NJV), 2013 WL 1435223, at \*1 (N.D. Cal. Apr. 9, 2013)). As Seagate acknowledges,  
 12 however, at least some of those decisions recognize that the good cause standard may not be  
 13 appropriate where a class certification motion is effectively dispositive because the stakes of the  
 14 litigation are such that proceeding individually would not be viable from a practical perspective,  
 15 and that in such circumstances a party must present compelling reasons for sealing. *See, e.g.*, *In re*  
 16 *High-Tech Emp. Antitrust Litig.*, 2013 WL 5486230, at \*2 n.1 (citing *Prado-Steiman ex rel. Prado*  
 17 *v. Bush*, 221 F.3d 1266 (11th Cir. 2000)); *see also In re Google Inc. Gmail Litig.*, No. 13-MD-  
 18 02430-LHK, 2014 WL 10537440, at \*3 (N.D. Cal. Aug. 6, 2014) (holding that the case at issue  
 19 “present[ed] such a circumstance”).

20 This is such a case. The products at issue sold for significantly less than the filing fee to  
 21 bring an action in this Court, and the Court concludes that under such circumstances individual  
 22 litigation would not be practical and class certification is effectively dispositive. Accordingly,  
 23 Seagate must show particularized compelling reasons to seal documents. *See Kamakana v. City &*  
 24 *Cty. of Honolulu*, 447 F.3d 1172, 1179–80 (9th Cir. 2006); *In re Google*, 2014 WL 10537440, at  
 25 \*3–4. Under that standard, Seagate’s current requests for sealing are overly broad by a wide  
 26 margin. *See, e.g.*, Adams Decl. fig. 1 (proposing to seal a figure intended to illustrate an abstract

27 \_\_\_\_\_  
 28 <sup>22</sup> In the case of Plaintiffs’ sealing motions, the only basis for sealing is that the documents contain information designated by Seagate as confidential.

1 principle of statistical analysis not drawn from Seagate's confidential data in any way).

2 The Court is not inclined to seal documents to prevent corporate embarrassment to Seagate  
 3 based on evidence or perception that its products did not perform well. *E.g.*, Lane Decl. (dkt. 143)  
 4 ¶ 10 (identifying "customer issues with Seagate drives" as information that "could be used by  
 5 competitors to Seagate's disadvantage"); *id.* ¶ 13 (seeking to seal in full "logs from customer  
 6 service interactions with a consumers [sic]" rather than merely redacting customers' identifying  
 7 information). Nor will vague invocations of strategy and internal procedure suffice, or the mere  
 8 fact that Seagate would normally keep information confidential, particularly where documents at  
 9 issue date back several years and may not reflect current technology and procedures. *See, e.g.*,  
 10 Fong Decl. in Support of Sealing Supp'l Br. (dkt. 170-1). No later than July 26, 2018, Seagate  
 11 may file a renewed, consolidated, narrowly tailored motion to seal information as is necessary to  
 12 prevent actual undue competitive harm or for some other compelling reason. If Seagate does not  
 13 file a renewed motion, the Court will order the parties to file all documents related to the present  
 14 motion in the public record.

15 **V. CONCLUSION**

16 For the reasons discussed above, Plaintiffs have not demonstrated that common issues  
 17 predominate among their proposed class as required for certification under Rule 23(b)(3) of the  
 18 Federal Rules of Civil Procedure. It is not obvious, however, that there is no way to manage at  
 19 least some subset of the currently proposed class as a Rule 23(b)(3) class action, or that some such  
 20 class would not be the most efficient way to resolve the claims of at least some of the currently  
 21 proposed class members. Plaintiffs' motion is DENIED without prejudice to seeking certification  
 22 of a narrower class focused on common issues, or of a class divided into subclasses sufficient to  
 23 address the variations discussed above. If Plaintiffs intend to file a second motion for class  
 24 certification, the parties are instructed to file a stipulated briefing schedule no later than July 26,  
 25 2018. A case management conference will occur on August 31, 2018 at 2:00 PM.

26 **IT IS SO ORDERED.**

27 Dated: July 5, 2018

28   
 JOSEPH C. SPERO  
 Chief Magistrate Judge