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**BACKUP TAPES, YOU CAN'T LIVE WITH THEM AND YOU
CAN'T TOSS THEM: STRATEGIES FOR DEALING WITH THE
LITIGATION BURDENS ASSOCIATED WITH BACKUP TAPES
UNDER THE AMENDED FEDERAL RULES OF CIVIL
PROCEDURE**

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[1] The law in the federal courts governing whether litigants must disclose their backup tapes just changed. Faced with the cost, burdens and uncertainties of mining backup tapes, as well as other sources of data that are difficult to reach, most litigants have simply been ignoring their backup tapes. No more. The amendments to the Federal Rules of Civil Procedure adopt a new standard that embraces the *Zubulake I* distinction between “accessible” and “inaccessible” data,¹ and requires the disclosing party to identify all its sources of data.² While the new rules will often spare companies from having to produce inaccessible sources of data such as backup tapes used for disaster recovery purposes, companies must, in

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¹ *Zubulake v. UBS Warburg LLC*, 217 F.R.D. 309, 318-20 (S.D.N.Y. 2003) (*Zubulake I*).

² FED. R. CIV. P. 26(a)(1)(B).

the first instance, demonstrate why those data sources would be unreasonable to search because of undue burden or cost.³

[2] Moreover, the amendments move the debate over electronically-stored information (“ESI”) to the beginning of the case. Litigants must now disclose ESI as part of their initial disclosures and provide for discovery of ESI as part of their Rule 26(f) conferences.⁴ This shift to early assessment of ESI benefits producing parties. Under past practices, some litigants opted to wait until the end of discovery to ask for e-mail. The hope was that data that had not been specifically addressed, and thus preserved, had by this late stage in the case been overwritten, degaussed or discarded. And, as you would expect, that missing data, ignored throughout the case, suddenly became the most important piece of evidence and the subject of a sanctions motion. Focusing the parties on ESI at the outset ends that tactic. The benefits conferred by the end of e-discovery by ambush are not without a cost, however, as companies now need to make investments early in the litigation to be able to talk meaningfully about ESI. As most companies do not know the location of all of their backup tapes, much less whether they are used solely for disaster recovery purposes or how much it would cost to process them for discovery, there remains much work to be done before the first Rule 26(f) conference under the new rules.

[3] This article first describes the nature of backup tapes and their limited use in discovery, as well as the law governing a litigant’s obligation to preserve data contained on backup tapes. This is followed by a discussion of the sampling approaches taken by various courts in deciding whether a litigant must search backup tapes, how to allocate the costs of conducting that search, and a litigant’s disclosure obligations with respect to data contained on backup media. Finally, the article addresses what a company can do to escape from the crushing burden of an accumulation of outdated and generally useless backup tapes.

³ *Id.* § (b)(2)(B)

⁴ *Id.* § (a)(1)(B).

I. THE NATURE OF BACKUP TAPES AND THEIR LIMITATIONS IN DISCOVERY

[4] Electronic data can be grouped into two broad categories: data which is reasonably accessible and data which is not.⁵ Generally speaking, in responding to discovery requests, a party is obligated to produce responsive, non-privileged accessible electronic data to the same extent as it is obligated to produce traditional paper data.⁶ Courts have been more willing to place limits on the obligation to produce inaccessible data, including shifting the costs of discovery of inaccessible data to the requesting party.⁷ And under the new Rule 26, “[a] party need not provide discovery of electronically stored information from sources that the party identifies as not reasonably accessible because of undue burden or cost.”⁸

[5] Data on backup tapes used for disaster recovery purposes is usually regarded as inaccessible, because such tapes function to quickly undo catastrophic systems failure, not as a filing cabinet. In *Rowe Entertainment, Inc. v. William Morris Agency, Inc.*, the court recognized the difficulties created when litigants must comply with discovery requests seeking data contained on backup tapes:

[E]ven if data is retained for limited purposes, it is not necessarily amenable to discovery. Back-up tapes, for example, are not archives from which documents may easily be retrieved. The data on a backup tape are not organized for retrieval of individual documents or files, but for wholesale, emergency uploading onto a computer system. Therefore, the organization of the data mirrors the

⁵ *Zubulake I*, 217 F.R.D. at 318. Some courts have further divided these categories. For example, the court in *Zubulake I* identified five categories of data: active or online data; near-line data; archival data kept on removable media; data stored on backup tapes; and fragmented, erased or damaged data. *Id.* at 318-20 (discussing in detail the categories of electronic data). Under the *Zubulake I* taxonomy, documents in the first three categories are considered “accessible” data, while data falling into the last two categories is considered “inaccessible.” *Id.*

⁶ FED. R. CIV. P. 26(a)(1)(B).

⁷ *See Zubulake I*, 217 F.R.D. at 324.

⁸ FED. R. CIV. P. 26(b)(2)(B).

computer's structure, not the human records management structure, if there is one.⁹

[6] Moreover, “[t]he disadvantage of tape drives is that they are sequential-access devices, which means that to read any particular block of data, you need to read all the preceding blocks.”¹⁰ Consequently, “the data on a backup tape are not organized for retrieval of individual documents or files [because] ... the organization of the data mirrors the computer's structure, not the human records management structure.”¹¹ This means that retrieval of “a specific file or data set [from a backup tape is] a time-consuming and inefficient process.”¹² Further, the data compression function of backup tapes—which saves storage space and reduces bandwidth by reducing the size of files—lacks uniform standards, thereby increasing the time and expense associated with restoration.¹³

[7] Backup tapes also contain vast amounts of duplicative data. Each time a full backup of a system is created, a copy of all of the data on that system is made without regard to whether other copies of that data already exist on backup tapes.¹⁴ Thus, if an organization makes a full backup of its e-mail systems once each week, and a particular e-mail remains in a user's account for an entire year, at the end of that year the organization will have fifty-two sets of backup tapes each containing an identical copy of that e-mail.

⁹ *Rowe Entm't v. William Morris Agency, Inc.*, 205 F.R.D. 421, 429 (S.D.N.Y. 2002) (citing Kenneth J. Withers, *Computer-Based Discovery in Federal Civil Litigation*, SF97 A.L.I.-A.B.A. 1079, 1085 (2001). See, e.g., *Wiginton v. Ellis*, No. 02 C 6832, 2003 WL 22439865, at *3 (N.D. Ill. Oct. 27, 2003) (“[The Defendant's] backup system is not an archiving system that would preserve all information going into[its] computers. Rather, it is a disaster recovery system that takes only snapshots of . . . computer files so that if a catastrophic event occurs, the information from the immediately preceding period can be reloaded.”).

¹⁰ *Zubulake I*, 217 F.R.D. at 319.

¹¹ *Id.* (citations omitted) (alterations in original).

¹² THE SEDONA CONFERENCE® GLOSSARY FOR E-DISCOVERY AND DIGITAL INFORMATION MANAGEMENT at *4 (May 2005), available at http://www.thosedonaconference.org/content/miscFiles/publications_html

¹³ *Id.*

¹⁴ See Craig Ball, *A Practical Guide to E-mail Discovery*, 41 TRIAL 29, 33 (2005).

[8] Finally, backup tapes often fail to capture relevant documents. Backup tapes of e-mail are illustrative because they do not catch every message that flows through a user's e-mail account.¹⁵ Rather, backup systems capture data that exists *at the time the backup is created*. Accordingly, backup tapes will only contain those e-mails that exist in the users' e-mail accounts at the particular moment at which the backups are created.¹⁶ If a user receives and immediately moves an e-mail to a Personal Store ("PST") file that is not backed up, then the likelihood is that no copy of that e-mail will be included on the backup tape.¹⁷ By contrast, that user's PST files could still contain a copy of the relevant e-mails.¹⁸

[9] In sum, while backup tapes provide a valuable tool to organizations in guarding against catastrophic failure of computer systems, their very nature presents unique challenges to parties seeking to use them as a source of data in discovery. But the federal discovery rules are liberally applied. Consequently, litigants must be prepared to receive and address requests for information housed on backup tapes, a subject to which we now turn.

II. THE DUTY TO PRESERVE BACKUP TAPES

A. COMMON LAW PRESERVATION OBLIGATION

[10] Numerous courts have made clear that a party has an "obligation to preserve evidence [that] arises when the party has notice that the evidence is relevant to litigation or when a party should have known that the evidence may be relevant to future litigation."¹⁹ As discussed below,

¹⁵ See *Quinby v. WestLB AG*, No. 04Civ.7406(WHP)(HBP), 2005 WL 3453908, at *7 (S.D.N.Y. Dec. 15, 2005); Ball, *supra* note 14, at 33–34.

¹⁶ See *Quinby*, 2005 WL 3453908, at *7.

¹⁷ See *Consol. Aluminum Corp., v. Alcoa, Inc.*, No. 03-1055-C-M2, 2006 WL 2583308, at *3, *6 (M.D. La. July 19, 2006).

¹⁸ See *id.*

¹⁹ *Fujitsu Ltd. v. Fed. Express Corp.*, 247 F.3d 423, 436 (2d Cir. 2001). See also *Silvestri v. General Motors Corp.*, 271 F.3d 583, 591 (4th Cir. 2001) ("The duty to preserve material evidence arises not only during litigation but also extends to that period before the litigation when a party reasonably should know that the evidence may be relevant to anticipated litigation."); *Kronisch v. United States*, 150 F.3d 112, 126 (2d Cir. 1998)

Th[e] obligation to preserve evidence arises when the party has notice that the evidence is relevant to litigation—most commonly when suit

while the common law preservation obligation applies to electronic information as well as to paper documents, the parameters of its application to backup tapes have not yet been fully defined.

B. APPLICATION OF PRESERVATION DUTY TO BACKUP TAPES

[11] Prior to the *Zubulake* family of cases, the most comprehensive court rulings addressing the issue of backup tapes came out of the Eastern District of Arkansas in a series of decisions related to the case of *Concord Boat Corp. v. Brunswick Corp. (Concord I)*.²⁰ *Concord I* involved, *inter alia*, requests for e-mail stored on “several hundred” backup tapes.²¹ At the outset, the court recognized that the defendant’s backup tape system was used “primarily for disaster prevention rather than archival” purposes.²² Thus, it was questionable whether the backup tapes at issue “would contain significant information not already discovered.”²³ But the court also recognized that, given the large number of backup tapes, it was possible that additional discoverable information was contained on the tapes.²⁴ The problem was that “there [was] no way of knowing what remain[ed] hidden without actually conducting a more complete search.”²⁵

[12] Ultimately, relying on the limitations imposed by Rule 26(b)(2) of the Federal Rules of Civil Procedure, the court ordered the defendant to search its active e-mail system for responsive material, but declined to order the restoration of e-mail backup tapes.²⁶ In reaching this decision, the court found that any limited gains achieved by restoring the backup tapes would be outweighed by the substantial burden and expense associated with

has already been filed, providing the party responsible for the destruction with express notice, but also on occasion in other circumstances, as for example when a party should have known that the evidence may be relevant to future litigation.

²⁰ *Concord Boat Corp. v. Brunswick Corp.*, No. LR-C_95-781, 1996 WL 33347247 (E.D. Ark. Dec. 23, 1996).

²¹ *See id.* at *1–2.

²² *Id.* at *2.

²³ *Id.*

²⁴ *See id.* at *2–3

²⁵ *Id.* at *2.

²⁶ *See Concord Boat Corp. v. Brunswick Corp.*, No. LR-C-95-781, 1997 WL 33352759, at *9 (E.D. Ark. Aug. 29, 1997) (*Concord II*).

conducting the search.²⁷ In particular, the court observed that because backup tapes were recycled every two weeks, the only definite information that would result from restoration would be information that was fourteen days older than that contained on the active system.²⁸ In the court's estimation, the fact that there might be "a few deleted e-mail" in the fourteen days worth of e-mail was not enough to justify the expense necessary to obtain it.²⁹

[13] The general acceptance of the approach outlined in *Concord II* has since given way to the more recent analysis of the duty to preserve information contained on backup tapes found in *Zubulake v. UBS Warburg LLC (Zubulake IV)*.³⁰ In that case, the court addressed a situation where a litigant produced some, but not all, backup tapes containing data for certain key employees.³¹ The plaintiff sought sanctions for defendant's failure to preserve the missing backup tapes.³² Specifically addressing the scope of the general duty to preserve information contained on backup tapes, the court explained:

Must a corporation, upon recognizing the threat of litigation, preserve every shred of paper, every e-mail or electronic document, and every backup tape? The answer is clearly, "no". Such a rule would cripple large corporations . . . that are almost always involved in litigation. As a general rule, then, *a party need not preserve all backup tapes even when it reasonably anticipates litigation.*³³

[14] *Zubulake IV* does not, however, establish a bright-line rule that exempts backup tapes from the duty to preserve.³⁴ Instead, the court

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Zubulake v. UBS Warburg LLC*, 220 F.R.D. 212, 215 (S.D.N.Y. 2003) (*Zubulake IV*) .

³¹ *Id.* at 218.

³² *Id.* at 219.

³³ *Id.* at 217 (footnotes omitted) (emphasis added).

³⁴ The amended Federal Rules of Civil Procedure provide that, "[a]bsent exceptional circumstances, a court may not impose sanctions under [the Federal Rules of Civil Procedure] on a party for failing to provide electronically stored information lost as a result of the routine, good-faith operation of an electronic information system." FED. R. Civ. P. 37(f).

inquired into how the backup system in question operated in order to determine whether a specific tape must be preserved in certain circumstances:

As a general rule, [a] litigation hold does not apply to inaccessible backup tapes (e.g., those typically maintained solely for the purpose of disaster recovery), which may continue to be recycled on the schedule set forth in the company's policy. On the other hand, if backup tapes are accessible (i.e., actively used for information retrieval), then such tapes *would* likely be subject to the litigation hold.

However, it does make sense to create one exception to this general rule. If a company can identify where particular employee documents are stored on backup tapes, then the tapes storing the documents of "key players" to the existing or threatened litigation should be preserved if the information contained on those tapes is not otherwise available. This exception applies to *all* backup tapes.³⁵

[15] It is important to note, however, that in *Zubulake IV*, the producing party, UBS Warburg LLC ("UBS"), was an entity regulated by the Securities and Exchange Commission (SEC) and was therefore subject to the detailed recordkeeping provisions of SEC Rules 17a-3 and 17a-4.³⁶

³⁵ *Zubulake IV*, 220 F.R.D. at 218 (emphasis added). In addition, the *Zubulake* court indicated in a footnote that litigants are now on notice that "backup tapes that can be identified as storing information created by or for 'key players' must be preserved." *Id.* at 220, n.47.

³⁶ *For classification of Zubulake as a party*, see *Zubulake v. UBS Warburg LLC*, 217 F.R.D. 309, 313-14 (S.D.N.Y. 2003) (*Zubulake I*). The court explained that Rule 17a-3 establishes the records that must be created and maintained by broker-dealers, and Rule 17a-4 addresses the record retention periods and the accessibility requirements. In particular, Rule 17a-4 provides, in pertinent part, "[e]very [] broker and dealer shall preserve for a period of not less than 3 years, the first two years in an accessible place . . . originals of all communications received and copies of all communications sent by such member, broker or dealer (including inter-office memoranda and communications) relating to his business as such." *Id.* at 314, n.21 (quoting 17 C.F.R. § 240.17a-4(b) and (4)) (alterations in original).

Accordingly, UBS “implemented extensive e[-]mail backup and preservation protocols” and backed up e-mail on both backup tapes and optical disks.³⁷ To satisfy regulatory requirements, UBS implemented a “backup” system designed to store and retrieve e-mail for regulators, as opposed to employing a backup system designed solely for disaster recovery purposes.³⁸ Further, the backup tape program used by UBS, Veritas NetBackup, created an index of each backup tape, allowing UBS to search through the tapes from the relevant time period prior to restoration and to identify the e-mail files responsive to the plaintiff’s request.³⁹ By utilizing the indexing feature of its backup tape system, UBS was able to narrow the field of potentially relevant backup tapes to ninety-four in the first instance.⁴⁰

[16] Thus, with respect to backup tapes, the *Zubulake* opinions carry several important lessons. First, to the extent a company actively uses its backup tapes for information retrieval, it may have an obligation to retain those tapes in connection with litigation. Judge Schiendlin did not indicate whether the occasional use of backup tapes to recover information accidentally deleted by employees renders them “accessible,” and therefore subject to a litigation hold. Research has revealed no subsequent authority on this issue. On the other hand, where backup tapes serve the traditional purpose of disaster recovery, they should be deemed “inaccessible.”⁴¹

[17] Second, even where backup tapes serve solely as a means of disaster recovery, the obligation to retain those backup tapes may arise *if* a company can identify data pertaining to key players that is only available on backup tapes. But, keep in mind that *Zubulake I* involved a backup

³⁷ *Id.* at 314. The optical disks used by UBS to backup its e-mail system were not erasable or rewriteable and saved every e-mail sent to or received by UBS’s registered traders from outside sources. *Id.* at 315. These optical disks were also easily searchable using a program called Tumbleweed. *Id.* Internal e-mail, however, were not stored on optical disks. *Id.*

³⁸ *See id.* at 314.

³⁹ *Id.*

⁴⁰ *Id.* *See also* *Zubulake v. UBS Warburg, LLC*, 216 F.R.D. 280, 282 (S.D.N.Y. 2003) (*Zubulake III*) (clarifying that UBS later found that only 77 of the backup tapes contained relevant material).

⁴¹ *Zubulake v. UBS Warburg LLC*, 220 F.R.D. 212, 218 (S.D.N.Y. 2003) (*Zubulake IV*).

tape system that allowed the defendant to narrow the field of potentially relevant backup tapes relatively easily.⁴² It remains to be seen whether the preservation obligations articulated in *Zubulake IV* will apply equally to a situation in which narrowing the field of potentially relevant backup tapes is time consuming and expensive. Research to date has yielded no subsequent decisions addressing that question.

III. THE OBLIGATION AND COSTS OF PRODUCING DATA CONTAINED ON BACKUP TAPES

[18] Recognizing the massive expense that can accompany the restoration and searching of data contained on backup tapes, the federal courts have tried to fashion reasonable compromises in resolving discovery disputes. The recent trend is to require a litigant to restore a sample set of the backup tapes at issue and to search those tapes for responsive material in order to assess the type of data contained on the backup tapes and the total costs of restoration.⁴³ Then, the court will consider shifting to the requesting party some of the costs incurred in making “inaccessible” data “accessible” for discovery purposes.⁴⁴

A. EMPLOYING SAMPLING TECHNIQUES TO EVALUATE BACKUP DATA

[19] In an effort to evaluate adequately the quality of the data contained on backup tapes, as well as the potential costs associated with restoring them, courts have increasingly utilized the sampling method. This sampling approach is a qualitative process; it does not aspire to reach confidence intervals associated with quantitative concepts, such as statistical significance. Instead, sampling involves an analysis of a small subset of tapes using a limited number of search terms, and extrapolates the results to determine the value of processing additional tapes.⁴⁵

⁴² *Zubulake I*, 217 F.R.D. at 315 (describing the program “Tumbleweed,” the backup tape system used by UBS Warburg).

⁴³ *McPeck v. Ashcroft*, 202 F.R.D. 31, 32 (D.D.C. 2001) (*McPeck I*).

⁴⁴ *Id.* at 34-35.

⁴⁵ *See, e.g.*, *Hagemeyer N. Am., Inc. v. Gateway Data Sci. Corp.*, 222 F.R.D. 594, 601-03 (E.D. Wis. 2004) (fashioning a protocol based on the *Zubulake I* and *McPeck* sampling methods that required the defendant to search any five backup tapes that the plaintiff selected); *Zubulake I*, 217 F.R.D. at 311-12 (ordering defendant UBS to restore and produce, at its own expense, responsive e-mail from any five backup tapes selected by the

[20] This “sampling” is generally accomplished by restoring a subsection of the backup tapes at issue and then searching that subset of tapes for potentially relevant documents using key words.⁴⁶ The seminal sampling case is *McPeek v. Ashcroft*.⁴⁷ In *McPeek*, an employee for the Bureau of Prisons sued the Department of Justice (“DOJ”), claiming that he had been retaliated against for accusing a supervisor of sexual harassment.⁴⁸ The employee requested restoration of the DOJ’s backup tapes in order to search for evidence of retaliatory e-mail.⁴⁹ The DOJ argued that because there was such a remote possibility that any search of the e-mail backup system would yield relevant evidence, there was no justification for the costs involved in the restoration.⁵⁰

[21] The *McPeek* court first determined that there was no authority for the proposition that a party is required to restore *all* backup tapes in *every* case.⁵¹ Further, the court found that “making the producing party pay for all costs of restoration as a cost of its ‘choice’ to use computers create[d] a disincentive for the requesting party to demand anything less than all of the tapes.”⁵² Nonetheless, the court also recognized that it would be inappropriate to make the party seeking the restoration of backup tapes pay the entire costs of doing so.⁵³ As a compromise, the court adopted the “marginal utility” approach.⁵⁴ This approach is based on the economic principle that “[t]he more likely it is that the backup tape contains

plaintiff); *Quinby v. WestLB AG*, No. 04Civ. 7406 (WHP)(HBP), 2005 WL 3453908, at *1 (S.D.N.Y. Dec 15, 2005) (discussing court’s requirement that defendant restore “as a sample” backup tape(s) from the relevant period).

⁴⁶ See *Wiginton v. CB Richard Ellis, Inc.*, 229 F.R.D. 568, 570 (N.D. Ill. 2004) (employing “key word” search of backup tapes); *Zubulake*, 217 F.R.D. at 324. .

⁴⁷ *McPeek I*, 202 F.R.D. 31 (D.D.C. 2001).

⁴⁸ *Id.* at 32.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.* at 33.

⁵² *Id.* The *McPeek* court also suggested that litigants who are “consistently required to pay for the restoration of backup tapes . . . may be sorely tempted not to have such systems.” *Id.* at 34. While recognizing that the notion that businesses would not employ backup systems if they were forced to restore them in every litigation might seem “fanciful,” the court nonetheless noted that “courts should not lead [businesses] into temptation.” *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

information that is relevant to a claim or defense, the fairer it is that the [responding party] search at its own expense.”⁵⁵

[22] The court then ordered that a “test run” should be performed.⁵⁶ The DOJ was directed to restore, at its own cost, backup tapes containing e-mail attributable to the supervisor’s computer for a one-year period, during which part of the retaliation had allegedly taken place.⁵⁷ Following restoration, the court reviewed the results of the initial search, determined that it was unlikely that the backup tapes contained information pertinent to the case, and refused to find that the mere possibility that data existed was sufficient to justify wholesale additional searches at what would certainly be a prohibitive cost.⁵⁸

[23] In *Zubulake I*, Judge Shira Scheindlin endorsed a sampling approach similar to that followed in *McPeek*.⁵⁹ The plaintiff in this case sought restoration of e-mail contained on UBS’s backup tapes.⁶⁰ Because its backup system automatically created an index of the backup tapes, UBS

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.* at 34.

⁵⁸ See *McPeek v. Ashcroft*, 212 F.R.D. 33, 35 (D.D.C. 2003) (*McPeek II*). The *McPeek* decision did not provide any factual background regarding the total number of backup tapes at issue or the costs associated with restoring and reviewing those tapes. Rather, the court summarily noted that the defendant estimated that it would cost no less than \$93 per hour for eight hours to restore a single backup tape. See *McPeek I*, 202 F.R.D. at 32. The court in *McPeek I*, however, did include in its opinion a general statement regarding comparative costs of restoration versus the likelihood of discovering relevant data:

If the likelihood of finding something was the only criterion, there is a risk that someone will have to spend hundreds of thousands of dollars to produce a single e-mail. That is an awfully expensive needle to justify searching a haystack. It must be recalled that ordering the producing party to restore backup tapes upon a showing of likelihood that they will contain relevant information in every case gives the plaintiff a gigantic club with which to beat his opponent into settlement. No corporate president in her right mind would fail to settle a lawsuit for \$100,000 if the restoration of backup tapes would cost \$300,000. While that scenario might warm the cockles of certain lawyers’ hearts, no one would accuse it of being just.

Id. at 34.

⁵⁹ See *Zubulake v. UBS Warburg LLC*, 217 F.R.D. 309, 323-24 (S.D.N.Y. 2003) (*Zubulake I*).

⁶⁰ *Id.* at 311-12.

succeeded in eventually narrowing the universe of potentially relevant backup tapes to ninety-four tapes.⁶¹ UBS estimated that it would cost \$175,000 to restore and search the backup tapes.⁶² An actual sample, the court observed, would provide tangible evidence of what the backup tapes contained and the time and cost required to restore them.⁶³ Therefore, the *Zubulake I* court ordered UBS to restore and produce, at its own expense, responsive e-mail from any five backup tapes selected by the plaintiff.⁶⁴

[24] The sampling ultimately cost UBS \$11,524.63, or \$2,304.93 per tape.⁶⁵ The court extrapolated that the total cost of restoring the remaining seventy-two tapes was \$165,954.67.⁶⁶ After reviewing the results of the sampling, the court concluded that hundreds of new, relevant e-mails had been discovered.⁶⁷ As a result, the court ordered the plaintiff to bear only 25% of the costs of restoring the remaining backup tapes.⁶⁸

[25] Next, in *Hagemeyer North America, Inc. v. Gateway Data Science Corporation*, a Wisconsin federal court followed *Zubulake I* and *McPeck* in adopting the sampling method as a tool to aid its cost-shifting analysis.⁶⁹ *Hagemeyer* involved an unspecified number of backup tapes that the plaintiff had discovered as a result of its search of boxes contained in the defendant's warehouse.⁷⁰ The plaintiff copied and reviewed a number of these backup tapes but found no e-mail.⁷¹ Nevertheless, the plaintiff contended that e-mail was contained on the

⁶¹ *Id.* at 314. The *Zubulake* decisions do not provide sufficient information to ascertain what the total volume of backup tapes would have been without this indexing capability.

⁶² *Id.* at 312.

⁶³ *Id.* at 324.

⁶⁴ *Id.* (“Requiring the responding party to restore and produce responsive documents from a small sample of the requested backup tapes is a sensible approach in most cases.”).

⁶⁵ See *Zubulake v. UBS Warburg LLC*, 216 F.R.D. 280, 282-83 (S.D.N.Y. 2003) (*Zubulake III*).

⁶⁶ *Id.* at 283.

⁶⁷ *Id.* at 286-87.

⁶⁸ *Id.* at 291.

⁶⁹ *Hagemeyer N. Am., Inc., v. Gateway Data Sci. Corp.*, 222 F.R.D. 594, 602-03 (E.D.Wis. 2004).

⁷⁰ *Id.* at 603.

⁷¹ *Id.* at 597.

remaining backup tapes based largely on statements made by one of the defendant's top executives that the company's backup tapes generally contained e-mail, among other items, and on the plaintiff's recovery of a handful of e-mail from diskettes discovered in the warehouse.⁷² The plaintiff then moved to compel the defendant to search the backup tapes, at defendant's own cost, for e-mail containing certain keywords.⁷³

[26] While it did not discuss the specific costs associated with restoring the backup tapes at issue, the *Hagemeyer* court observed that the cost of restoring and reviewing backup tapes could be hundreds of thousands of dollars.⁷⁴ Recognizing the potential for placing an undue burden on the responding party, the court crafted a protocol based on the *Zubulake I* and *McPeek* sampling methods.⁷⁵ Under that protocol, the defendant was required to search any five backup tapes that the plaintiff selected, after which the parties were to submit briefing on whether that search yielded productive results so that the utility of further searching could be determined.⁷⁶ The court would then determine whether the costs of producing data contained on the defendant's backup tapes should be shifted to the plaintiff.⁷⁷

[27] Sampling methods have also resulted in situations where the requesting party must bear the majority of the costs of production. In *Wiginton*,⁷⁸ the defendant gathered ninety-four backup tapes gathered from its eleven offices.⁷⁹ The plaintiff hired an outside electronic-discovery vendor to restore one monthly backup tape from each of three different offices and to search the backup tapes using ninety-eight different terms.⁸⁰ In addition, the court instructed each party to select four

⁷² *Id.* at 597-98.

⁷³ *Id.* at 597.

⁷⁴ *Id.* at 601.

⁷⁵ *Id.* at 603.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Wiginton v. CB Richard Ellis, Inc.*, 229 F.R.D. 568 (N.D. Ill. 2004).

⁷⁹ *Id.* at 570.

⁸⁰ *Id.* Although in *Wiginton* the requesting party bore the costs of sampling, most courts require the producing party to shoulder the initial costs of restoration for purposes of conducting a sampling of backup tapes at issue. See, e.g., *Zubulake v. UBS Warburg LLC*, 217 F.R.D. 309, 323 (S.D.N.Y. 2003) (*Zubulake I*); *McPeek v. Ashcroft*, 202 F.R.D. 31, 34 (D.D.C. 2001) (*McPeek I*).

terms, which the vendor would use to search the tapes for responsive documents.⁸¹ Following this sampling, the vendor provided the parties with an estimate of the costs of processing the ninety-four tapes.⁸² As a result of the large number of documents identified by the sampling, the vendor revised its original estimate of \$46,000-\$61,000 to \$183,500-\$249,900 for the project.⁸³ The *Wiginton* court concluded that defendants should bear 25% and plaintiffs 75% of the discovery costs associated with restoring the tapes, searching the data, and transferring it to an electronic viewer.⁸⁴ The court further ordered that each party bear its own costs in reviewing the data and for any printing.⁸⁵

[28] In light of the foregoing cases, a growing trend in favor of sampling becomes apparent.⁸⁶ When faced with requests for the restoration and searching of a large volume of backup tapes, courts instruct the litigants (and their experts) to analyze a subset of those tapes using a limited number of search terms, and then extrapolate the quality of the results to determine whether further restoration and searching of backup tapes is justified.⁸⁷ Just as litigants could not expect every shred of paper an adversary possessed, so too must parties realize that they will not extract every megabyte of data.⁸⁸ With the outcome of the sampling techniques

⁸¹ *Wiginton*, 229 F.R.D. at 570.

⁸² *Id.*

⁸³ *Id.* at 570, 575.

⁸⁴ *Id.* at 577.

⁸⁵ *Id.* In addition to the sampling methods employed by the courts, some commentators have offered further principles to guide sampling approaches. See Ashish S. Prasad and William H.J. Hubbard, *Just a Peek: Sampling of Backup Tapes*, FOR THE DEFENSE, June 2004, at 37-40 (arguing that sampling can provide defendants with a strategy for reducing costs and burden in cases, advising that defendants and their counsel should have a comprehensive plan that accounts for both sample size (*e.g.*, absolute number of tapes or by category) and sampling method (*e.g.*, allowing plaintiffs to select the sample, having the court make a random selection, or proposing a systematic, non-random sampling), and should be prepared to assist the court in interpreting the results of any sampling).

⁸⁶ See *Farmers Ins. Co. v. Peterson*, 81 P.3d 659, 661-62 (Okla. 2003) (explicitly endorsing sampling in the course of discovery of large amounts of paper and electronic data).

⁸⁷ See, *e.g.*, *Wiginton*, 229 F.R.D. at 568.

⁸⁸ See *Cognex Corp. v. Electro Scientific Indus. Inc.*, No. Civ.A. 01CV10287RCL, 2002 WL 32309413, *5 (D. Mass. July 2, 2002) (refusing to order a search of backup tapes, even at requester's expense, when the responding party "has already conducted an extensive search for relevant documents. At some point the adversary system needs to

known, federal courts turn to the next step in guarding against the potential abuse of discovery that can result by requiring expensive and time-consuming restoration of backup tapes: allocating costs.

B. EMPLOYING A COST-SHIFTING ANALYSIS

[29] In the federal courts, “[t]he Supreme Court has instructed that ‘the presumption is that the responding party must bear the expense of complying with discovery requests.’”⁸⁹ As noted, however, the expense of complying with a discovery request to produce data contained on backup tapes can be immense.⁹⁰ Recognizing this potential undue burden, some federal courts have elected to employ a cost-shifting analysis, derived from Rule 26 of the Federal Rules of Civil Procedure, to evaluate which party should bear the costs associated with electronic discovery. Again, the most widely-followed approach in this area comes from the Southern District of New York.

1. COST-SHIFTING PRE-*ZUBULAKE*: *ROWE*

[30] In *Rowe Entertainment, Inc. v. William Morris Agency, Inc.*, the Southern District of New York first articulated some clear guidelines for analyzing whether cost-shifting was appropriate in circumstances where the production of electronic media involved significant burden and expense.⁹¹ Those guidelines required a consideration of eight factors, including, *inter alia*, the likelihood of discovering critical information, the purposes for which the producing party maintained the requested data, the relative ability of each party to control costs, and the total costs associated with production.⁹²

say ‘enough is enough’ and recognize that the costs of seeking *every* relevant piece of discovery is not reasonable.”).

⁸⁹*Zubulake v. UBS Warburg LLC*, 217 F.R.D. 309, 317 (S.D.N.Y. 2003) (*Zubulake I*) (quoting *Oppenheimer Fund, Inc. v. Sanders*, 437 U.S. 340, 358,(1978)).

⁹⁰ *See, e.g., Wiginton*, 229 F.R.D. at 568; *Zubulake I*, 217 F.R.D. at 309; *Oppenheimer*, 437 U.S. at 340.

⁹¹ *Rowe Entm’t, Inc. v. William Morris Agency, Inc.*, 205 F.R.D. 421, 429-33 (S.D.N.Y. 2002).

⁹² *Id.* at 429 (employing the following eight factors: (1) the specificity of the discovery requests; (2) the likelihood of discovering critical information; (3) the availability of such information from other sources; (4) the purposes for which the responding party maintains the requested data; (5) the relative benefit to the parties of obtaining the

[31] Applying those factors, the *Rowe* court determined that (a) the breadth of plaintiff's request, (b) the low probability that the tapes contained significant amounts of relevant data, (c) the fact that the backup tapes were not accessed by the defendants in the regular course of business, (d) the plaintiff's ability to control costs, and (e) the magnitude of the costs of restoration (estimated between \$148,000 and \$221,000), all militated in favor of cost-shifting.⁹³ Thus, the court ordered that the expense of restoring and searching the data on the backup tapes should be borne fully by the requesting party.⁹⁴

2. THE *ZUBULAKE* SEVEN FACTOR COST-SHIFTING ANALYSIS

[32] One year later, Judge Scheindlin modified the *Rowe* eight-factor test.⁹⁵ In *Zubulake I*, Judge Scheindlin criticized the *Rowe* approach for not properly taking into account the proportionality test of Rule 26 and the presumption that the producing party should bear the costs of production.⁹⁶ The decision cautioned that cost-shifting should be considered only when electronic discovery imposes an "undue burden or expense" on the producing party.⁹⁷ The court explained that

[t]he burden or expense of discovery is, in turn, "undue" when it "outweighs its likely benefit, taking into account the needs of the case, the amount in controversy, the parties' resources, the importance of the issues at stake in the litigation, and the importance of the proposed discovery in resolving the issues."⁹⁸

[33] The *Zubulake I* court also drew a distinction between "accessible" and "inaccessible" electronic media.⁹⁹ The court found that relevant

information; (6) the total cost associated with production; (7) the relative ability of each party to control costs and its incentive to do so; and (8) the resources available to each party).

⁹³ *Id.* at 429-32.

⁹⁴ *Id.* at 432-33.

⁹⁵ See *Zubulake v. Warburg LLC*, 217 F.R.D. 309, 321 (S.D.N.Y. 2003) (*Zubulake I*).

⁹⁶ *Id.*

⁹⁷ *Id.* at 318.

⁹⁸ *Id.* (quoting FED. R. CIV. P. 26(b)(2)(c)(iii)).

⁹⁹ *Id.* at 318-20.

electronic information stored in an “accessible” format must be produced at the producing party’s expense.¹⁰⁰ But where a party seeks the production of material from “inaccessible” media, like backup tapes, the court determined that a cost-shifting analysis would be appropriate.¹⁰¹ The court then set forth its seven-factor test:

- (1) The extent to which the request is specifically tailored to discover relevant information;
- (2) The availability of such information from other sources;
- (3) The total cost of production, compared to the amount in controversy;
- (4) The total cost of production, compared to the resources available to each party;
- (5) The relative ability of each party to control costs and its incentive to do so;
- (6) The importance of the issues at stake in the litigation; and
- (7) The relative benefits to the parties of obtaining this information.¹⁰²

[34] In advocating its analysis, the court noted that the test should not be applied “mechanically,” but should be evaluated on a case-by-case basis taking into consideration all of the pertinent facts.¹⁰³ Further, the court suggested that weighing the seven factors in descending order of importance should avoid any mechanistic application of the test.¹⁰⁴

¹⁰⁰ *Id.* at 324.

¹⁰¹ *See id.* at 318. In distinguishing between “accessible” and “inaccessible” data, the *Zubulake I* court found that active, near-line and archival data should be considered “accessible,” whereas backup media designed for disaster recovery and fragmented, erased or damaged data should be considered “inaccessible.” *Id.* at 318-20.

¹⁰² *Id.* at 322.

¹⁰³ *Id.* at 323.

¹⁰⁴ *Id.* Parties resisting requests for production may still object that the requests are not narrowly tailored to seek relevant electronic materials. *See Custodian of Records v. Wisconsin*, 680 N.W.2d 792, 807 (Wis. 2004) (quashing subpoena that requested backup tapes from fifty-four government servers as overbroad, because it compelled production of computer data from an entire branch of government rather than requesting specific topics, document types, or time periods).

[35] Ultimately, the *Zubulake* court ruled that the plaintiff should share in the costs of restoration, but found that defendant would be required to bear 75% of those costs.¹⁰⁵ In addition, in *Zubulake III*, the producing party was required to bear all the costs of review once the documents were restored from an “inaccessible” format to an “accessible” format.¹⁰⁶ The courts addressing the production of documents from backup tapes since the *Zubulake* decisions have adopted that court’s cost-shifting analysis.¹⁰⁷

[36] In sum, sampling is an accepted method for evaluating the costs associated with restoring backup tapes and the quality of the data contained thereon. The ultimate determination as to which party should bear the costs of producing material contained on backup tapes depends upon the court’s analysis of all of the cost-shifting factors. Where a search of backup tapes is likely to return large amounts of responsive data not available from other sources, however, the producing party should expect to bear the bulk of the costs.¹⁰⁸

¹⁰⁵ *Zubulake v. Warburg LLC*, 216 F.R.D. 280, 291 (S.D.N.Y. 2003) (*Zubulake III*). It should be noted that UBS estimated the cost of restoring the backup tapes at issue to be only \$175,000. Other courts addressing more significant restoration costs have also ordered cost-shifting. *See, e.g.*, *Murphy Oil USA, Inc. v. Fluor Daniel, Inc.*, No. Civ.A. 99-3564, 2002 WL 246439 at *3 (E.D. La. Feb. 19, 2002) (adopting the *Rowe* factors in a pre-*Zubulake I* case, the court considered cost-shifting where the estimated total costs for restoring and producing e-mail from backup tapes was \$6.2 million, and ordered that, for one of the backup tapes, the requesting party would pay restoration costs and the producing party would pay for the review of the data restored, and then the court would consider the results and any additional action in a later court conference). *See also* *Zubulake v. UBS Warburg LLC*, 217 F.R.D. 309, 312 (S.D.N.Y. 2003) (*Zubulake I*) (noting that UBS estimated the cost of restoring the backup tapes at issue to be only \$175,000).

¹⁰⁶ *Zubulake III*, 216 F.R.D. at 291.

¹⁰⁷ *See, e.g.*, *Wiginton v. CB Richard Ellis Inc.*, 229 F.R.D. 568, 572-77 (N.D. Ill. 2004) (adopting *Zubulake I*’s seven factor test, plus adding a factor for consideration of the importance of the requested discovery in resolving the issues in the litigation, and ultimately deciding to shift 75% of the costs to the requesting party). *See also* *Hagemeyer N. Am., Inc. v. Gateway Data Sci. Corp.*, 222 F.R.D. 594, 599-603 (E.D. Wis. 2004) (canvassing all of the different tests developed by the courts for evaluating the production of backup tapes and determining that the *Zubulake I* seven-factor test best integrated the principles of Fed. R. Civ. P. 26(b)(2)).

¹⁰⁸ Other courts have entertained cost-shifting in the context of backup tapes without employing a sampling methodology. For example, in *Byers*, the court adopted the *McPeck I* marginal utility analysis, but did not employ any sampling techniques. *See* *Byers v. Ill. State Police*, No. 99 C 8105, 2002 WL 1264004 (N.D. Ill. Jul. 3. 2002)

IV. THE DUTY TO DISCLOSE THE EXISTENCE OF BACKUP TAPES

[37] In light of the current limitations on the duty to produce and preserve data contained on backup tapes, the question arises as to whether a party is required to voluntarily disclose the existence of backup tapes that might contain data relevant to a particular litigation. Whereas the answer to this question had been unclear under the old Rule 26 and the cases interpreting it, the answer today is yes.

[38] The amendments to the Federal Rules seek to facilitate the early disclosure of electronically-stored information, including sources of electronic information deemed “inaccessible” like backup tapes, in order to promote the resolution of any discovery disputes through negotiation, rather than court intervention.¹⁰⁹ Specifically, the amendments to Rules 26(a), 26(b)(2) and 26(f) direct the parties to disclose and discuss the production of electronically-stored information, including inaccessible electronic information, during the early stages of litigation.¹¹⁰

(determining that a search of the backup tapes was unlikely to result in the discovery of relevant e-mail and that the estimated cost of conducting the search was \$20,000 to \$30,000). *Id.* at *11. The court held that the plaintiffs would be entitled to the e-mail contained on backup tapes only if the plaintiffs were willing to pay for part of the costs of production. *Id.* at *12. In another case, the Western District of Tennessee adopted the *Rowe* eight-factor cost-shifting analysis and the *McPeck I* marginal-utility approach, but did not employ sampling to inform its decision. *See Medtronic Sofamore Danek, Inc. v. Michelson*, 229 F.R.D. 550, 558 (W.D. Tenn. 2003). After conducting its factual analysis, the court ordered that all fiscal year-end backup tapes from the time period at issue (1997-2002), plus all backup tapes from the thirty days preceding the date of the order, would be restored. *Id.* at 560. The costs of such restoration, estimated at \$4,881 per tape, was to be shared between the parties: 60% by the plaintiff (the producing party) and 40% by the defendant (the requesting party). *Id.* at 561. The total number of tapes that would actually be restored was not disclosed, but the total universe of backup tapes at issue was 996. *Id.* at 558. It should be noted that the court acknowledged that the “several million” dollars estimated to restore *all* 996 tapes amounted to less than 2% of the amount at issue in the suit, but nonetheless recognized that the cost of restoration was substantial. *Id.*

¹⁰⁹ *See* Excerpt from the Report on the Civ. Rules Advisory Comm. (July 25, 2005), http://www.uscourts.gov/rules/supct1105/Excerpt_CV_Report.pdf [hereinafter *Advisory Committee Report*].

¹¹⁰ In addition to the amendments to the Federal Rules, a number of federal district courts have adopted local rules or standing orders to address a party’s discovery obligations with respect to electronic materials. *See, e.g.*, D. Kan. Elec. Discovery Guidelines, <http://www.ksd.uscourts.gov/guidelines/electronicdiscoveryguidelines.pdf> (last visited

[39] Rule 26(a) was amended to “clarif[y] a party’s duty to include in its initial disclosures electronically stored information by substituting ‘electronically stored information’ for ‘data compilations.’”¹¹¹ It should be noted, however, that the disclosure of “electronically stored information” is still limited to information the disclosing party may use to support its case.¹¹²

[40] The amendment to Rule 26(b)(2) provides that a party is not required to produce electronically-stored information that is not accessible because of undue burden or cost.¹¹³ But a responding party is required to identify the sources of potentially responsive information that it will not search or produce due to the costs and burdens of accessing the information.¹¹⁴ This amendment is intended to improve upon the present practice, under which, according to the Judicial Conference “responding parties simply do not produce electronically stored information that is difficult to access.”¹¹⁵ If

March 19, 2007) (requiring discussion of electronic discovery at Rule 26(f) conference); D. N.J. Civ. R. 26.1(d)(1) (same); D. Wyo. R. 26.1(e) (same); E.D. Ark. Local R. 26.1 (same); W.D. Ark. Local R. 26.1 (same); Default Standard for Discovery of Elec. Docs, promulgated by the Ad Hoc Comm. for Electronic Discovery of the U.S. District Court for the District of Delaware, www.ded.uscourts.gov/Announce/AdHoc-Disc.pdf [hereinafter *D. Del. Discovery of Elec. Documents*] (same); 9th Cir. Local Rule (proposing the preservation of potentially responsive electronic data in accordance with Fed. R. Civ. P. 34); M.D. Fla. Local R. 3.03(f) (requiring counsel to use technology to the maximum extent possible during all phases of litigation). For example, some federal district courts have mandated that parties or their counsel identify potential sources of electronic information as well as individuals with knowledge of a party’s electronic systems in advance of a Rule 26(f) conference. *See, e.g.*, D. Del. Discovery of Elec. Documents (requiring parties to disclose a list of their electronic systems, including which electronic documents are of “limited accessibility,” prior to the Rule 26(f) conference and mandating the designation of an “E-discovery liaison”); D. N.J. Civ. R. 26.1(d)(1) (stating that “[t]o determine what must be disclosed pursuant to Fed. R. Civ. P. 26(a)(1), counsel shall further review with the client the client’s information files, including currently maintained computer files as well as historical, archival, back-up, and legacy computer files...”). *See* Excerpt from the Report of the Judicial Conf. Comm. on Rules of Prac. and Proc. at 7-13 (Sept. 2005), http://www.uscourts.gov/rules/supct1105/Excerpt_STReport_CV.pdf [hereinafter *Report of the Judicial Conference*] (last visited March 19, 2006).

¹¹¹ Report of the Judicial Conference, *supra* note 110, at 7.

¹¹² *See* Advisory Committee Report, *supra* note 109, at 15.

¹¹³ *See* Report of the Judicial Conference, *supra* note 110, at 11.

¹¹⁴ *See id.* at 12.

¹¹⁵ *Id.*

the requesting party seeks discovery of such sources, the responding party then has the burden to show that they are not reasonably accessible.¹¹⁶ Even where this showing is made, however, the court may nonetheless order discovery if—after considering the limitations set forth in Rule 26(b)(2) relating to the burdens and expense of production—the requesting party shows good cause.¹¹⁷ The goal is to encourage the resolution of disputes regarding electronic discovery issues through early disclosure and negotiation between the parties, without the need to resort to court intervention.¹¹⁸ Where negotiations fail, the amendment to Rule 26(b)(2)(B) expressly incorporates a method for judicial resolution.¹¹⁹

V. WHAT TO DO WITH YOUR OUTDATED BACKUP TAPES

[41] Many corporations have vast stores of old backup tapes that have long outlived their usefulness. They no longer serve any legitimate disaster recovery purpose and often are not accessible to the corporation either because the systems required to run those tapes are outdated and no longer in use or because the company no longer supports the software that created the documents contained on the tapes. Also, a large number of tapes creates a substantial, and virtually unquantifiable, exposure to litigation costs. As the amount of data that backup tapes store continues to increase, so too does the cost to review it all. In addition, recent decisions have shown how little room for error producing parties enjoy, and the punishment in the form of sanctions and adverse inferences visited on those who fail to maintain exacting control over one's ever increasing inventory of backup tapes. Thus, a "save everything" approach is simply not a tenable long-term solution.

¹¹⁶ *Id.*

¹¹⁷ Advisory Committee Report, *supra* note 109, at 34.

¹¹⁸ *Id.* at 35.

¹¹⁹ *Id.* Similarly, under the amendment to Rule 26(f), the parties' discovery conference is to specifically include discussion of preservation and production of electronic information. See Report of the Judicial Conference, *supra* note 110, at 7-8. The topics to be discussed include (a) "any issues relating to disclosure or discovery of electronically stored information, including the forms or forms in which it should be produced," (b) "any issues relating to preserving discoverable information," and (c) "any issues relating to claims of privilege or of protection as trial-preparation material." Advisory Committee Report, *supra* note 109, at 22-24.

[42] For these reasons, indefinite retention of backup tapes not subject to a hold is neither a favored business practice nor required by law.¹²⁰ It is not too late to rationalize the way backup material is stored. There is no prohibition against changing approaches to document retention, even during litigation, so long as the party takes a reasoned, deliberate approach to any deviations from established policy.¹²¹ Keep in mind, however, that courts see through—and will not tolerate—efforts to target specific material for deletion. “In contrast, however, a document retention policy adopted or utilized to justify the destruction of relevant evidence is not a valid document retention policy.”¹²²

[43] Discarding of such old backup tapes, therefore, cannot be done without evaluating whether those tapes might contain information that is subject to an existing legal hold or regulatory requirement.¹²³ And, under the new Federal Rules, litigants will not only have to disclose their backup tapes, but they will also have to demonstrate why they are

¹²⁰ See, e.g., *Linnen v. A.H. Robins Co.*, No. 97-2307, 1999 Mass. Super. LEXIS 240, at *3 (June 15, 1999) (“The recycling of back-up tapes is, under normal circumstances, a widely accepted business practice as, in the absence of a disaster which necessitates the use of the tapes, there is no need to keep them for an indefinite period of time.”); *Concord Boat Corp. v. Brunswick Corp.*, No. LR-C-95-781, 1997 WL 33352759, at *4 (E.D. Ark. Aug. 29, 1997) (reasoning that “to hold that a corporation is under a duty to preserve all e-mail potentially relevant to any future litigation would be tantamount to holding that the corporation must preserve all e-mail”).

¹²¹ See *Drnek v. Variable Annuity Life Ins.*, No. CIV 01-242-TUC-WDB, 2004 WL 1098919, at *3 (D. Ariz. May 4, 2004) (holding that absent any showing of destruction of relevant documents, implementation of a new document-retention policy during litigation is not a basis for sanctions). Accord *Arthur Andersen LLP v. United States*, 544 U.S. 696, 704 (2005) (“Document retention’ policies which are created in part to keep certain information from getting into the hands of others, including the Government, are common in business. . . . It is, of course, not wrongful for a manager to instruct his employees to comply with a valid document retention policy under ordinary circumstances.”).

¹²² *Hynix Semiconductor Inc. v. Rambus Inc.*, No. C-00-20905 RMW, 2006 U.S. Dist. LEXIS 30690, at *55 (N.D. Cal. Jan. 4, 2006). See also *Carlucci v. Piper Aircraft Corp.*, 102 F.R.D. 472, 486 (S.D. Fla. 1984) (default entered where party deliberately destroyed documents to prevent discovery, holding that defendant “utterly failed to provide credible evidence that a [*bona fide*, consistent and reasonable document retention policy] existed”).

¹²³ See, e.g., *Zubulake v. UBS Warburg LLC*, 229 F.R.D. 422, 432 (S.D.N.Y. 2004) (*Zubulake V*) (recognizing that “reasonable steps” must be taken to identify documents subject to preservation obligations).

“inaccessible.”¹²⁴ Companies who plan to approach their first Rule 26(f) conference under the new regime by merely identifying backup tapes, without providing any information about what they contain or how burdensome they are to process, run a significant risk that they will have to bear the costs incurred in restoring and searching them.

[44] Accordingly, undertaking a process to understand what backup tapes contain, and to make reasonable and defensible decisions to part with them where possible, serves the twin aims of reducing costs and preparing to meet obligations imposed by the new Federal Rules. The primary goal of such a remediation process is to reach reasonable, cost-efficient decisions about what to keep. As information about the tapes is gathered and analyzed, one will be able to make judgments about whether a tape or tape set needs to be maintained, or can be safely discarded.

[45] For example, armed with recent improvements in technology that generate indices of tape contents that identify custodian names and date-ranges for e-mail, companies can isolate subsets of potentially relevant tapes without incurring the full costs of restoration. By separating the potentially relevant information for the litigation holds currently in place, and preserving only that information, companies can limit the amount of data to process when the next case comes along.

[46] In addition, sampling and de-duping techniques help determine whether backup tapes contain large amounts of redundant information. If a system is backed up on a nightly basis, most of the information on the system one day will be the same the next day. The backup tapes for those two days, therefore, will be almost identical, and if it appears that no potentially relevant data has been changed, there would be little justification for keeping both backup tapes. Redundant information need not be preserved, because a party has no obligation to search the same data twice.¹²⁵ The remediation process generally entails five major steps:

¹²⁴ *See id.* at 431, 432.

¹²⁵ *See, e.g.,* *Hussey v. Chase Manhattan Bank*, No. Civ. A. 02-7099, 2004 WL 220845, *2-3 (E.D. Pa. Jan. 12, 2004) (holding that it was unnecessary to search an electronic e-mail archive when an identical paper archive has already been searched).

1. Conduct a “sweep” to ensure that reasonable steps have been taken to ensure that all backup tapes have been properly located and identified;
2. Gather information about the backup tapes and existing litigation and regulatory holds potentially applicable to these tapes;
3. Consult with executives to determine the possible business need for any information contained on the backup tapes;
4. Cull the backup tape trove based on the information obtained, and the use of sampling techniques; and
5. Work with an established vendor to quantify the cost and burden of fully processing the tapes that remain. The resulting information will prepare the company for the battle to come over whether those tapes should be discoverable and, if so, who should pay to restore and search them.

[47] Completion of all of these steps, including the proper documentation of the process and the decisions taken by the company, usually requires retention and active involvement of both experienced counsel and a qualified technological consultant.

VI. CONCLUSION

[48] In sum, the amended Federal Rules will require companies to disclose their backup tapes to the adversary, and classify them as accessible or inaccessible. Unless the company can demonstrate why those tapes do not contain potentially relevant information, or are "inaccessible" because searching them would impose undue cost or burden, the trove of backup tapes will be part of discovery. In addition, under current law, companies will likely have to preserve and produce information on backup tapes when those tapes provide the only source of information for persons critical to the underlying dispute and the producing party can identify where those key-personnel documents are stored on the backup tapes. Accordingly, companies need to develop and execute defensible methodologies for reviewing and disposing of backup tapes. If not, those that opt to save everything will exponentially increase the costs to process that mounting data source (namely the expense for data storage and retrieval, restoration of backup tapes, and review of the data for privilege

and production), as well as the risks inherent in keeping potentially unhelpful documents that never needed to be maintained in the first place.

[49] So, what is the solution? The best, and arguably only, defensible way to get out from under the backup-tape burden is to reduce the accumulation of old backup tapes and keep the volume of backup tapes maintained by the company to the absolute minimum required for disaster recovery purposes. Reducing the accumulated backup tapes by developing and implementing a defensible approach to discarding those tapes is not without some level of risk and will certainly involve substantial in-house resources, as well as a significant investment by the company for both technical and legal advice. But the alternative—keeping all of those old backup tapes and continuing to generate new backup tapes to add to the pile—will only result in even higher and ever increasing costs and risks to the organization. Companies stand to reap enormous future cost savings by investing today to get their electronic-discovery house in order.