

entered judgment consistent with this verdict.¹

Twice during the course of trial – after the close of plaintiffs’ case, and then after the close of their own case – defendants moved for judgment as a matter of law, pursuant to Fed. R. Civ. P. 50(a). The Court denied these motions.² Defendants now renew their earlier motions for judgment as a matter of law, pursuant to Fed. R. Civ. P. 50(b). The Court rules on these motions as follows:

- Defendants’ Renewed Motion for Judgment as a Matter of Law on Causation (docket no. 174) is **DENIED**.
- Defendants’ Renewed Motion for Judgment as a Matter of Law on Overexposure (docket no. 175) is **DENIED**.
- BOC’s Motion for Judgment as a Matter of Law on Product Identification/Causation (docket no. 170) is **GRANTED**.
- ESAB’s Renewed Motion for Judgment as a Matter of Law on Product Identification/Causation (docket no. 171) is **DENIED**.
- Hobart’s Renewed Motion for Judgment as a Matter of Law on Product Identification/Causation (docket nos. 172 & 176) is **DENIED**.
- TDY’s Renewed Motion for Judgment as a Matter of Law on Product Identification/Causation (docket no. 173) is **DENIED**.

I. Legal Standards.

Federal Rule of Civil Procedure 50(a) states that, “[i]f a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue,” then the court may “grant a motion for judgment as a matter of

¹ See docket no. 168 (final judgment).

² See trial tr. at 2028-46 (Nov. 15, 2007) (denying motions for directed verdict after close of plaintiffs’ case); *id.* at 2600-26 (Nov. 20, 2007) (denying motions for directed verdict after close of defendants’ case).

law against the party on a claim or defense that, under the controlling law, can be maintained or defeated only with a favorable finding on that issue.” If, as did the undersigned in this case, the Court denies the Rule 50(a) motion made during trial, “the court is considered to have submitted the action to the jury subject to the court’s later deciding the legal questions raised by the motion.”³ The movant may then “renew its request for judgment as a matter of law by filing a motion no later than 10 days after the entry of judgment.”⁴ The defendants timely filed their motions for judgment pursuant to Rule 50(b).⁵

After a verdict is returned, the Court may rule on a renewed Rule 50(b) motion by: (a) allowing the judgment to stand, (b) ordering a new trial, or (c) directing entry of judgment as a matter of law.⁶ In diversity cases, such as this one, the standard for granting a renewed motion for judgment as a matter of law under Rule 50(b) is governed by state law.⁷ Accordingly, this Court must apply the standards of California law to defendants’ motions.

Under California law, the “trial court’s discretion in granting a motion for judgment

³ Fed. R. Civ. P. 50(b).

⁴ *Id.* “The movant may alternatively request a new trial or join a motion for a new trial under Rule 59.” *Id.* The defendants did not request a new trial in this case.

⁵ Defendants orally renewed their Rule 50 motions immediately after the verdict was delivered, and then filed the six written motions listed above. *See* trial tr. at 2919-22 (Dec. 5, 2007) (orally renewing motions).

⁶ Fed. R. Civ. P. 50(b).

⁷ *Mannix v. County of Monroe*, 348 F.3d 526, 531 (6th Cir. 2003) (“[i]n federal court diversity cases, this circuit adheres to the minority rule that state law governs the standard for granting motions for directed verdicts and judgments notwithstanding the verdict”); *Potti v. Duramed Pharmaceuticals, Inc.*, 938 F.2d 641, 645 (6th Cir. 1991) (“a federal court sitting in diversity applies the standard for a directed verdict used by the courts of the state whose substantive law governs the action”).

notwithstanding the verdict is severely limited.”⁸ The trial judge cannot re-weigh the evidence, nor assess the credibility of witnesses. “If the evidence is conflicting or if several reasonable inferences may be drawn, the motion for judgment notwithstanding the verdict should be denied.”⁹ The motion “may properly be granted only if it appears from the evidence, viewed in the light most favorable to the party securing the verdict, that there is no substantial evidence to support the verdict. If there is any substantial evidence, or reasonable inferences to be drawn therefrom, in support of the verdict, the motion should be denied.”¹⁰ As another California appellate court has explained:

We emphasize that the test is *not* the presence or absence of a substantial conflict *in the evidence*. Rather, it is simply whether there is substantial evidence *in favor of the [non-movant]*. If this “substantial” evidence is present, no matter how slight it may appear in comparison with the contradictory evidence, the judgment must be upheld. As a general rule, therefore, we will look only at the evidence and reasonable inferences supporting the

⁸ *In re Coordinated Latex Glove Litigation* (“*Latex Glove*”), 121 Cal.Rptr.2d 301, 309 (Cal. Ct. App. 2002). Further, “the trial judge’s power to grant a judgment notwithstanding the verdict is identical to his power to grant a directed verdict.” *Id.*

⁹ *Id.*; see *Goetz v. Hess*, 2002 WL 1608403 at *1 (Cal. Ct. App. July 22, 2002) (“The court must disregard all conflicting evidence and indulge in every legitimate inference that may be drawn in support of the judgment, and may grant the motion only if there is no substantial evidence to support the verdict.”).

¹⁰ *Latex Glove*, 121 Cal.Rptr.2d at 309 (emphasis added).

successful party, and disregard the contrary showing.¹¹

II. Analysis.

A. Causation.

With their first post-judgment motion, defendants argue the jury did not have a legally sufficient evidentiary basis to find in favor of the Tamrazes because the “plaintiffs did not adequately establish that defendants’ failure to warn Mr. Tamraz about the risks of overexposure to welding fumes was the proximate cause of Mr. Tamraz’s alleged injury.”¹² In particular, defendants assert the Tamrazes “failed to prove at trial that Mr. Tamraz would have ceased welding or would have welded differently if a different warning had been included with the welding consumables he used.”¹³ The Court finds this assertion is not supported by the evidentiary record.

As an initial matter, the parties disagree on the question of the California legal standard for showing proximate cause in a failure-to-warn case. Defendants assert that, under California law, to prevail

¹¹ *Howard v. Owens Corning*, 85 Cal.Rptr.2d 386, 393 (Cal. Ct. App. 1999) (some emphasis added). The applicable legal standards under California law are essentially the same as those the Court would apply if this case had federal subject matter jurisdiction. In such instances, when determining whether to grant judgment as a matter of law, the Court is not free to weigh the parties’ evidence or to pass upon the credibility of witnesses. *Black v. Zaring Homes*, 104 F.3d 822, 825 (6th Cir. 1997); *K & T Enters. v. Zurich Ins. Co.*, 97 F.3d 171, 175 (6th Cir. 1996). Nor may the Court substitute its own judgment for that of the jury. *Zaring Homes*, 104 F.3d at 825; *K & T Enters.*, 97 F.3d at 175-76. Instead, the Court must view the evidence most favorably to the party against whom the motion is made and give that party the benefit of all reasonable inferences from the record. *Zaring Homes*, 104 F.3d at 825; *K & T Enters.*, 104 F.3d at 176. When the evidence would permit reasonable minds to differ on the issues decided by the jury, a motion for judgment as a matter of law must be denied. *American and Foreign Ins. Co. v. Bolt*, 1997 WL 57361 (6th Cir. 1997). In short, every effort must be made to uphold the verdict, if reasonably possible.

¹² Motion at 1 (docket no. 174).

¹³ *Id.* At the close of their case, the defendants filed a written motion for judgment as a matter of law on this ground, pursuant to Rule 50(a). See docket no. 155. Defendants did not earlier make a similar motion after the close of plaintiffs’ case.

on a claim for failure to warn, a plaintiff “must prove not only that no warning was provided or the warning was inadequate, but also that the inadequacy or absence of the warning caused plaintiff’s injury.”¹⁴ More specifically, defendants assert, the plaintiff bears the burden of showing at trial “that, had a different or better warning been given, plaintiff would have altered his or her behavior and avoided the injury alleged.”¹⁵ In further support of this position, defendants cite *Ramirez v. Plough, Inc.*;¹⁶ *Massok v. Keller Inds., Inc.*;¹⁷ and *Plummer v. Lederle Laboratories, Div. of American Cyanamid Co.*¹⁸

In contrast, the Tamrazes assert they bear no burden of adducing evidence that, if the defendants had supplied a different or better warning, Mr. Tamraz would have behaved differently and taken action to avoid his alleged injuries. Essentially, the Tamrazes assert they should be given the benefit of the “heeding presumption,” which is set out in the *Restatement Second of Torts*, §402A, comment j (1965): “Where a warning is given, the seller may reasonably assume that it will be read and heeded; and a product bearing such a warning, which is safe for use if it is followed, is not in defective condition, nor is it unreasonably dangerous.” The heeding presumption “is a rebuttable presumption that is a burden-shifting device assisting a plaintiff in establishing causation.”¹⁹ As the court explained in the seminal case of *Reyes v. Wyeth Laboratories*: “Where a consumer, whose injury the manufacturer should have reasonably

¹⁴ *Id.* at 5 (quoting *Motus v. Pfizer, Inc.*, 196 F. Supp.2d 984, 991 (C.D. Cal. 2001), *affirmed*, 358F.3d 659 (9th Cir. 2004)).

¹⁵ *Id.*

¹⁶ 863 P.2d 167 (Cal. 1993)

¹⁷ 2005 WL 2108654 (9th Cir. Sept. 1, 2005)

¹⁸ 819 F.2d (2nd Cir. 1987) (applying California law)

¹⁹ *Lord v. Smithkline Beecham Corp.*, 2007 WL 4418019 at *3 (Cal. Ct. App. Dec. 19, 2007) (concluding the presumption was rebutted).

foreseen, is injured by a product sold without a required warning, a rebuttable presumption will arise that the consumer would have read any warning provided by the manufacturer, and acted so as to minimize the risks. In the absence of evidence rebutting the presumption, a jury finding that the defendant's product was the producing cause of the plaintiff's injury would be sufficient to hold him liable."²⁰

As the Court noted when it addressed defendants' Rule 50(a) oral motion on causation,²¹ it is not clear whether California law would recognize the heeding presumption in the context of this case. It does appear that "no California court has adopted or applied the heeding presumption."²² However, the question of whether the presumption exists under California law has virtually always arisen in the context of medical device and drug cases. These cases implicate physicians, who are learned intermediaries, as the intended warning recipients – the cases do not, like this one, involve consumer products with warnings

²⁰ *Reyes v. Wyeth Laboratories*, 498 F.2d 1264, 1281 (5th Cir. 1974), *cert. denied*, 419 U.S. 1096 (1974). The presumption "works in favor of the manufacturer when an adequate warning is present. Where there is no warning . . . , however, the presumption that the user would have read an adequate warning works in favor of the plaintiff user. In other words, the presumption is that [the plaintiff] would have read an adequate warning. The presumption, may, however, be rebutted if the manufacturer comes forward with contrary evidence that the presumed fact did not exist." *Id.*

²¹ *See* trial tr. at 2605-2611 (Nov. 20, 2007).

²² *Lord*, 2007 WL 4418019 at *3.

directed at the end-user.²³ Further, in all of the cases cited by defendants (*Motus, Ramirez, Massok, and Plummer*), the plaintiff (and/or her doctor) did not read any warning at all, unlike Mr. Tamraz. This is a critical fact that makes these cases all distinguishable.

Ultimately, however, to rule on defendants' motion, the Court need not resolve the question of whether California law applies the heeding presumption in the context of this case. For the purpose of instructing the jury, the Court *rejected* the Tamrazes' argument that they were entitled to the heeding presumption. To the contrary, the Court accepted the defendants' position and instructed the jury as follows:

The burden is on Mr. Tamraz, accordingly, to show, by a preponderance of the evidence, that the warnings given were inadequate, that an adequate warning would have made a difference in his conduct, and that this change in conduct would have prevented him from being injured. In other words, Mr. Tamraz must show that, if he had received different or additional warnings from the defendants, it is more likely than not that he would have altered his conduct in the use of welding consumables, and this alteration

²³ A digression: during trial, the plaintiffs filed a motion asking the Court to preclude the defendants from raising the sophisticated user defense, which is related to the learned intermediary doctrine. *See* docket no. 145 (plaintiffs' motion for summary judgment). The Court ultimately declined to charge the jury on the sophisticated user defense, for two reasons: (1) there was some question whether California courts recognized the defense; and (2) more importantly, the evidence presented at trial did not even fairly raise the issue. *See* trial tr. at 2618-21 (Nov. 20, 2007) ("I did not charge the jury with a separate independent sophisticated user defense both because there is a serious question under California law as to what the nature of that defense is, and [because] the most recent decision that I have from [California Coordinated Proceeding] Judge Sabraw is that it is not appropriate to even allow that defense; but separate and apart from that, there simply is not substantial evidence in the record discussing the nature of the users, meaning the intermediaries, here, and there wasn't sufficient evidence in the record to allow the Court to even instruct as it relates to the nature of the warnings provided to a particular employer [qua sophisticated user]."). (Note – Judge Bonnie Sabraw is presiding over California Judicial Council Coordination Proceeding No. 4368, the state-court analog to this federal MDL).

Subsequently, the California Supreme Court concluded, on a "question of first impression," that "the sophisticated user defense applies in California." *Johnson v. American Standard, Inc.*, 179 P.3d 905, 908 (Cal. 2008). Given the Court's second reason for declining to instruct the jury on the sophisticated user defense, however, the *Johnson* holding is not relevant to any issues raised by the defendants.

would have prevented him from suffering the same amount of harm.²⁴

Even though this instruction did not give Mr. Tamraz the benefit of any heeding presumption, the jury found he would have heeded a better warning. Thus, defendants' present motion challenges whether Mr. Tamraz presented sufficient evidence for a jury to reasonably find that Mr. Tamraz carried his burden of proof, even absent any presumption.

Having reviewed the evidence, the Court now concludes, as did the jury before it, that, even in the absence of any presumption, the Tamrazes produced sufficient evidence of proximate cause; they have made a showing adequate to support a finding by a reasonable jury "that Mr. Tamraz would have ceased welding or would have welded differently if a different warning had been included with the welding consumables he used."²⁵

To make a sufficient evidentiary showing on this issue, there need not be uttered by plaintiff (or any other witness) certain "magic words;" counsel is not required to ask the plaintiff explicitly whether he would have behaved differently if he had received a different warning, and the plaintiff need not testify precisely to this effect. Indeed, a jury could reasonably perceive such a formulaic exchange as weightless.

Rather, circumstantial evidence (and inferences reasonably reached therefrom) can supply the "legally sufficient evidentiary basis" necessary to fend off a motion for judgment notwithstanding the verdict. In this case, plaintiffs adduced at trial the following evidence: (1) Mr. Tamraz read the

²⁴ Jury Instructions at 28 (docket no. 160). It is also worth noting that the *Massok* case, cited by defendants, states as follows: "We also pause to note that Massok's failure to read the warning labels, even if considered negligent, does not necessarily bar recovery under California's comparative negligence regime. Regardless of the plaintiff's negligence in using the product, a manufacturer is still under a duty to provide consumers with a non-defective product, and thus any fault on the part of the plaintiff is simply factored into the more general comparative negligence calculus when assessing the parties' relative responsibility for the injury." *Massok*, 2005 WL 2108654 at *8 n.3 (9th Cir. Sept. 1, 2005). The *Massok* court reversed the district court's order granting to defendants judgment as a matter of law.

²⁵ Motion at 1 (docket no. 174).

defendants' warnings urging him to "use adequate ventilation," and he saw this phrase throughout his career;²⁶ (2) Mr. Tamraz did his best to follow this warning;²⁷ (3) Mr. Tamraz believed that obtaining adequate ventilation was necessary to avoid injury to lungs and eyes; he was never warned that inadequate ventilation could lead to permanent brain damage, and the possibility never occurred to him;²⁸ (4) Mr. Tamraz was instructed that certain welding jobs called for use of a respirator, such as jobs involving lead paint or asbestos;²⁹ (5) whenever Mr. Tamraz understood that the nature of the job did require the use of a respirator, he used one;³⁰ and (6) one of Mr. Tamraz's welding foremen stated that Jeff was a conscientious worker who followed all the safety rules and procedures he was given, and he compared favorably in this regard to other welders.³¹

As noted earlier, "[i]f there is any substantial evidence, or reasonable inferences to be drawn therefrom, in support of the verdict," then a Rule 50(b) motion must be denied.³² The evidence summarized above provides a sufficient basis upon which a reasonable jury could infer, find, and conclude that: (a) Mr. Tamraz was generally a careful welder; (b) Mr. Tamraz did his best to follow the warnings he was given, including directions on when and whether to use respirators; and (c) if warned that welding carried a risk of permanent brain damage, and that this risk could be mitigated by taking certain additional

²⁶ Trial tr. at 794-06, 833 (Nov. 7, 2007).

²⁷ *Id.*

²⁸ *Id.* at 827-28, 910.

²⁹ *Id.* at 794-06, 833.

³⁰ *Id.*

³¹ *Id.* at 1591-92 (Nov. 12, 2007).

³² *Latex Glove*, 121 Cal.Rptr.2d at 309.

precautions (e.g., wearing a respirator), then Mr. Tamraz would have changed his behavior and welded differently.

In sum, the Court concludes that defendants' motion for judgment as a matter of law, based on an insufficient evidentiary showing that the proximate cause of Mr. Tamraz's alleged injury was the failure to warn him fully about the risks of overexposure to welding fumes, is not well-taken.

B. Overexposure.

With their second post-judgment motion, defendants argue the jury did not have a legally sufficient evidentiary basis to find in favor of the Tamrazes because plaintiffs offered no evidence that Mr. Tamraz "was exposed to sufficiently high doses of manganese in welding fumes to have caused his alleged injury."³³ Put differently, defendants assert that Mr. Tamraz's evidentiary burden is not just a showing of exposure to manganese in welding fumes; he must show he was exposed to *toxic levels* of manganese. Further, defendants assert, there must be reliable expert testimony to support this showing. Defendants insist the Tamrazes did not meet this burden at trial.

California courts have set out the analysis this MDL court must undertake, in the toxic-tort product liability context, to determine whether there is sufficient evidence of exposure to a toxin to support a verdict. In *Lineaweaver v. Plant Insulation Co.*, the court relied upon "established California law and long-standing tort principles to resolve the single issue put to [it]: was there evidence of sufficient substantiality to support a jury finding that asbestos supplied by [the defendant] was a cause of [the plaintiffs'] injuries?"³⁴ The court explained it was "concerned with the element of causation and, in

³³ Motion at 1 (docket no. 175).

³⁴ *Lineaweaver v. Plant Insulation Co.*, 37 Cal. Rptr.2d 902, 905 (Cal. Ct. App. 1995).

particular, the cause in fact component of that element.”³⁵ The court continued:

The “substantial factor” standard is used for cause in fact determinations. Under that standard, a cause in fact is something that is a substantial factor in bringing about the injury. * * *

“Substantial factor” has not been judicially defined, and some think it “neither possible nor desirable to reduce it to any lower terms.” However, it has been suggested that a force which plays only an “infinitesimal” or “theoretical” part is not a substantial factor. But the word “substantial” should not be weighed too heavily. The substantial factor standard [was] formulated to aid plaintiffs as a broader rule of causality than the “but for” standard³⁶

The *Lineaweaver* court then held that, “in evaluating whether [the alleged] exposure was a substantial factor in causing [the claimed] disease, the standard should be the same as used in other negligence cases: is there a reasonable medical probability based upon competent expert testimony that the defendants’ conduct contributed to plaintiff’s injury[?]”³⁷ Other California courts have confirmed that, where the issue is “causation in a toxic tort case, expert testimony is required to prove, with ‘reasonable medical probability,’ that exposure to the defendant’s products or emissions caused the plaintiff’s injuries.”³⁸ And, of course, “[f]actual assumptions made by an expert in arriving at an opinion [regarding toxic exposure levels] must have sufficient evidentiary support.”³⁹ If an expert’s “opinion is not based upon facts otherwise proved . . . it cannot rise to the dignity of substantial evidence.”⁴⁰

³⁵ *Id.*

³⁶ *Id.* (citations omitted).

³⁷ *Id.* at 906 (citation omitted). *See also Redfoot v. B.F. Ascher & Co.*, 2007 WL 1593239 at *15 (N.D. Cal. June 1, 2007) (“Under California law, causation in a personal injury action must be proven within a reasonable medical probability based on competent expert testimony.”).

³⁸ *Stadish v. Southern California GAs Co.*, 2002 WL 1360667 at *7 (Cal. Ct. App. June 24, 2002).

³⁹ *Id.* at *10.

⁴⁰ *Id.* (internal quotation marks and citation omitted).

Finally, the factors a court should examine when assessing the medical probability that exposure to a toxin contributed to the plaintiff's disease include: "[f]requency of exposure, regularity of exposure, and proximity of the . . . product to [the] plaintiff," as well as "the type of . . . product to which plaintiff was exposed, the type of injury suffered by plaintiff, and other possible sources of plaintiff's injury."⁴¹

In this case, the jury was presented with the following evidence, much of it adduced from plaintiffs' expert Industrial Hygienist, David Kahane.⁴² Several governmental and professional entities have established various measures to define safe exposure limits to toxins, including manganese. These measures include: (1) Threshold Limit Values ("TLVs"), which are promulgated by the American Conference of Governmental Industrial Hygienists ("ACGIH"); (2) Permissible Exposure Limits ("PELs"), which are promulgated by the Occupational Safety and Health Agency ("OSHA"); and (3) additional PELs promulgated by the California state equivalent of OSHA, known as "Cal-OSHA." The TLV is the maximum *average* amount to which, it is believed, a person may be safely exposed over an 8-hour time

⁴¹ *Lineaweaver*, 37 Cal. Rptr.2d at 906. The *Lineaweaver* court cited *Restatement Second of Torts* §433B (1965) several times in its discussion of burden of proof, causation, and exposure. *Lineaweaver*, 37 Cal. Rptr.2d at 906-07. In relevant part, the *Restatement* states: "The plaintiff is not, however, required to prove his case beyond a reasonable doubt. He is not required to eliminate entirely all possibility that the defendant's conduct was not a cause. It is enough that he introduces evidence from which reasonable men may conclude that it is more probable that the event was caused by the defendant than that it was not. The fact of causation is incapable of mathematical proof, since no man can say with absolute certainty what would have occurred if the defendant had acted otherwise. If, as a matter of ordinary experience, a particular act or omission might be expected to produce a particular result, and if that result has in fact followed, the conclusion may be justified that the causal relation exists. In drawing that conclusion, the triers of fact are permitted to draw upon ordinary human experience as to the probabilities of the case." *Id.* §433B, cmt. b.

⁴² See trial tr. at 1323 *et seq.* (Nov. 9, 2007) (testimony of Mr. Kahane).

period.⁴³ The PEL is the maximum *ceiling* amount to which a person may be safely exposed at any moment in time. Thus, a welder may suffer momentary manganese fume exposures in excess of the PEL ceiling limit, but not suffer an average exposure over his workday in excess of the TLV; similarly, a welder may suffer average exposures in excess of the 8-hour limit imposed by the TLV, but not momentary exposures in excess of the PEL absolute ceiling.

Over time, the ACGIH has reduced the TLV for manganese exposure. In 1948, the TLV was an 8-hour time-weighted average of 6.0 mg/mm³; in the late 1970s, when Mr. Tamraz started welding, the TLV was 5.0 mg/mm³; and today, it is an 8-hour time-weighted average of 0.2 mg/mm³. This decrease reflects the ACGIH's increasing concern over the toxicity of manganese exposure. OSHA's current PEL for manganese, which has been in effect since the early 1970s, is 5.0 mg/mm³, while Cal-OSHA's current PEL for manganese exposure is 0.2 mg/mm³. OSHA's higher PEL incorporates concerns regarding the cost to businesses of compliance with exposure limits, while the ACGIH's TLVs are concerned exclusively with worker safety.⁴⁴

Documents authored by the defendants, and by trade organizations to which the defendants belong, discuss manganese in welding fumes and the applicable PELs and TLVs – especially during times when the TLVs were lowered. One such document, circulated widely within the welding industry at about the time Mr. Tamraz started welding, is known as the Battelle Survey; it was sponsored by the American

⁴³ The ACGIH describes a TLV as follows: “[TLVs] refer to airborne concentrations of chemical substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed, day after day, over a working lifetime, without adverse health effects. TLVs are developed to protect workers who are normal, healthy adults.” See www.acgih.org/Products/tlv_bei_intro.htm. See *In re Welding Fume Prods. Liab. Litig.*, 526 F.Supp.2d 775, 784 n.33 & 789-90 n.65 (N.D. Ohio 2007) (discussing the history and meaning of the TLVs and PELs for manganese).

⁴⁴ The ACGIH has also promulgated a measure similar to OSHA's PEL, which it terms an “excursion limit,” and which is set at 1.0 mg/mm³.

Welding Society in 1972. The Survey stated:

The fumes from manganese are highly toxic, and they can produce total disablement *even after exposures as short as a few months* to high-fume concentrations Exposure to manganese dioxide may cause a neurological lesion involving the basal ganglia, the frontal cortex, and occasionally the pyramidal system. Symptoms are similar to Parkinson's syndrome and include 'weakness of the legs,' difficulty in walking downhill, instability, and weakness while doing heavy work.⁴⁵

The Survey also stated that several welding rods "produced manganese and vanadium fumes that exceeded recommended TLVs," which were 5.0 mg/mm³ at the time.⁴⁶

Documents authored by defendant Lincoln Electric concede that "early limits are outdated and insufficiently protective of worker health."⁴⁷ More specifically, minutes of a 1981 meeting of the American Welding Society ("AWS"), attended by Lincoln, state: "some cases of manganism have been documented at levels below five milligrams per cubic meter, and that this was the reason that the current threshold limit value was lowered to one milligram per cubic meter."⁴⁸ Further, defense witnesses admitted that the level at which manganese exposure becomes unsafe is not known for certain;⁴⁹ and plaintiffs' expert Kahane testified there is at least one "report of a documented Manganese-Induced

⁴⁵ Battelle Survey at 27 (trial exh. 1562) (emphasis added).

⁴⁶ *Id.* at 65.

⁴⁷ Lincoln Powerpoint presentation at 12 (2004) (trial exh. 6112)

⁴⁸ AWS Safety & Health Committee Meeting minutes at 5 (May 20, 1981) (trial exh. 1647).

⁴⁹ *See* trial tr. at 2126-30 (Nov. 15, 2007) (review of testimony of Lincoln representatives John Stropki, Marie Quintana, and Kenneth Brown, that there is no known safe level of exposure to manganese in welding fume, and/or that the level at which exposure becomes unsafe is not known).

Parkinsonism case that was purported to occur with levels below [the current TLV of] point two.”⁵⁰

In 1994, members of the AWS met to discuss the then-proposed reduction of the manganese exposure TLV from 1.0 to 0.2 mg/mm³. The AWS meeting minutes state that defendant Lincoln Electric “estimated that if the TLV is lowered to 0.2 milligrams per cubic meter, then the overall welding fume limit . . . would be exceeded in most workplace atmospheres.”⁵¹ As noted above, the reduction of the TLV to 0.2 mg/mm³ did, in fact, occur.⁵²

In addition to setting manganese exposure limits, OSHA agents travel to various worksites around the country to audit whether employees, including welders, are experiencing exposures in excess of the

⁵⁰ Trial tr. at 1343 (Nov. 9, 2007). Substantial evidence was presented showing that defendants were aware that welding fume exposure could cause Manganese-Induced Parkinsonism (“MIP”). In 1979, a widely-distributed AWS literature review noted that “[p]otential exposure to manganese occurs whenever this metal is used in electrode coatings or in electrode wire,” and that manganese is “poisonous to the nervous system.” American Welding Society, *Effects of Welding on Health*, at xix (1979) (trial exh. 2940). This literature review went on to state that the “observation that manganese resembles Parkinson’s disease deserves emphasis. Although no data on the prevalence of parkinsonism in welders are available, there is a concern that some cases of manganese poisoning could be mistakenly diagnosed as Parkinson’s disease. Further investigations may be warranted.” *Id.* at 29. In 1980, commenting on another welding fume lawsuit that was widely discussed within the industry, one manufacturer wrote the following summary: “[the plaintiffs] complained of the fumes for 3 weeks, then came down with symptoms of manganese poisoning. They have severe neurological damage which . . . is doubtless due to the welding in a confined area with the Hadfield Manganese rods. The damage is irreversible – these guys are impaired for life.” AWS Safety & Health Committee meeting minutes at 5 (May 20, 1981) (trial exh. 1647). In 1992, an internal ESAB memorandum also acknowledged the same hazard, stating: “Once [welding rods] are used in an electric arc, they can liberate respirable manganese fumes. * * * Manganese fumes are of serious concern. The irreversible neurological damaged produced by chronic overexposure to manganese fume is tragic. You are wise to be concerned.” ESAB memorandum from George Barnes to William Esch (Feb. 24, 1992) (trial exh. 260).

⁵¹ AWS Fumes and Gases Committee meeting minutes at 3 (Oct. 17, 1994) (trial exh. 920).

⁵² *See In re Welding Fume Prods. Liab. Litig.*, 245 F.R.D. 279, 316 (N.D. Ohio 2007) (in the context of denying certification of a medical monitoring class, reviewing plaintiffs’ evidence and concluding that “at least some defendants have recognized that some welder-plaintiffs: (1) are routinely exposed to manganese in welding fumes above safe threshold limits; [and] (2) thereby suffer an increased risk of developing neurological illness due to exposure to welding fumes”) (footnotes omitted).

legal limits. These measurements are collected in an OSHA database. OSHA's measurements of manganese exposures endured by welders includes all types of circumstances: indoor and outdoor welding, use of high- and low-manganese welding rods, well- and poorly-ventilated conditions, and so on. Analysis of the OSHA database – which includes thousands of measurements taken over the last 20 years – shows that: (1) about 30% of the welders were, at the time of measurement, experiencing manganese exposure in excess of OSHA's current TLV of 0.2 mg/mm³; (2) about 5% of the welders were, at the time of measurement, experiencing manganese exposure in excess of the ACGIH's current "excursion limit" (recommended absolute ceiling) of 1.0 mg/mm³; (3) welders were about five times as likely to be experiencing manganese exposure in excess of OSHA's current TLV as were non-welders; and (4) these statistics have held fairly constant over the duration of the 20-year measurement period.⁵³

Beyond these generalized observations regarding welding fume exposures experienced by the "typical" or "average" welder, Mr. Tamraz and one of his foremen-supervisors, Mr. Montoya, testified regarding Mr. Tamraz's own welding experiences. This evidence may be summarized as follows: (1) because Mr. Tamraz was a very industrious welder with excellent skills, employers regularly requested his services; (2) during the majority of his career, Mr. Tamraz used "flux-cored wire," which is known as one of the "smokiest" welding consumable products and which produces fume with one of the highest manganese concentrations; (3) the amount of time that Mr. Tamraz spent welding during a workday (as opposed to related chores where he was not exposed to fumes) was often high; (4) at least occasionally, Mr. Tamraz welded in tight confines where there was little natural ventilation available; and (5) Mr. Tamraz was only infrequently instructed to use a respirator – usually when the job involved welding near

⁵³ See trial tr. at 1350-55 (Nov. 9, 2007) (testimony of Mr. Kahane regarding the OSHA database).

asbestos or on metals coated with lead-based paint.⁵⁴

Finally, there was substantial evidence that: (1) excessive exposure to manganese can cause a disease known as Manganism, or Manganese-Induced Parkinsonism (“MIP”); (2) the symptoms of MIP are similar to those of Idiopathic Parkinson’s Disease (which is what defendants’ experts maintain Mr. Tamraz has); and (3) individual susceptibility to the adverse effects of manganese varies considerably. Indeed, defendants’ own experts and documents concede these points. For example, the 1985 Material Safety Data Sheet that accompanied defendant Hobart’s welding rods stated: “Long term overexposure to manganese compounds may affect the central nervous system. Symptoms include muscular weakness, tremors similar to Parkinson’s disease.”⁵⁵ ESAB’s warning labels now state: “Overexposure to manganese, and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system, including the brain.”⁵⁶ Dr. Anthony Lang, a defense expert neurologist specializing in movement disorders, agrees that welders can get Manganese-Induced Parkinsonism from welding fume exposure.⁵⁷ And a document published by the World Health Organization addressing environmental health criteria for manganese states that “[i]ndividual susceptibility to the adverse effects

⁵⁴ See trial tr. at 1476 *et seq.* (Nov. 12, 2007) (testimony of Mr. Montoya).

⁵⁵ Trial exh. 1155; trial tr. at 1651-53 (Nov. 12, 2007) (counsel reading this language from the MSDS). See also trial tr. at 1373 (Nov. 9, 2007) (counsel referring to an MSDS that stated “manganese can cause central nervous system injury, including brain damage”).

⁵⁶ In 1992, an internal ESAB memorandum acknowledged this same hazard, stating: “Once [welding rods] are used in an electric arc, they can liberate respirable manganese fumes. * * * Manganese fumes are of serious concern. The irreversible neurological damaged produced by chronic overexposure to manganese fume is tragic. You are wise to be concerned.” ESAB memorandum from George Barnes to William Esch (Feb. 24, 1992) (trial exh. 260).

⁵⁷ Trial tr. at 1335 (Nov. 9, 2007).

of manganese varies considerably.”⁵⁸

Despite this evidence, defendants argue that Mr. Tamraz did not present the jury with substantial evidence that his disease was caused by exposure to the fumes given off by defendants’ welding consumables. Defendants assert Mr. Tamraz is required to show he was “exposed to a sufficient amount of the substance in question to elicit the health effect in question,” which “requires not simply proof of exposure to the substance, but proof of *enough* exposure to cause the plaintiff’s specific illness;” and that Mr. Tamraz did not meet this requirement.⁵⁹ The Court disagrees.

The essential prongs of defendants’ argument are: (1) there is some low level of exposure to manganese that is certainly safe; (2) it is not known precisely at what level manganese exposure causes Manganese-Induced Parkinsonism; (3) the plaintiffs did not show precisely how much manganese fume exposure Mr. Tamraz actually sustained; (4) the only objective, quantitative evidence of fume exposure presented by plaintiffs was the OSHA database, and there is no basis upon which to conclude the welders with scores at the “high end” of this database had work conditions and exposures similar to Mr. Tamraz; (5) Mr. Tamraz’s anecdotal, subjective descriptions of his welding fume exposures is self-serving, and does not allow for any quantification; and (6) therefore, a conclusion by the jury that Mr. Tamraz was

⁵⁸ *Id.* at 633 (Nov. 6, 2007) (Dr. Burns quoting the WHO publication, “Environmental Health Criteria for Manganese,” trial exh. 1547 at 13). *See also id.* at 959 (Nov. 7, 2007) (Mr. Tamraz’s treating neurologist, Dr. Walter Carlini, acknowledging individual susceptibility to manganese exposure); *Daubert* hearing tr. at 1995 (July 26, 2005) (defense expert Dr. Warren Olanow agreeing that susceptibility to the adverse effects of manganese varies from individual to individual).

The Court does not recite in this opinion all of the substantial evidence supporting the proposition that exposure to manganese in welding fumes can, at least in some circumstances, cause Manganese-Induced Parkinsonism – a proposition the defendants now concede. The Court examined much of this evidence in great depth in the context of assessing its admissibility under the standards set out in *Daubert*. *See In re Welding Fume Prods. Liab. Litig.*, 2006 WL 4507859 (N.D. Ohio Aug. 8, 2006) (actually issued on August 8, 2005, *see* case no. 03-CV-17000, docket no. 1352).

⁵⁹ Motion at 4 (docket no. 175) (emphasis added) (quoting *McClain v. Metabolife Intl., Inc.*, 401 F.3d 1233, 1242 (11th Cir. 2005) (internal quotation marks omitted)).

exposed to toxic levels of manganese fume must be speculation.

This argument is flawed because defendants have refused to recognize the inferences a reasonable jury may (and, apparently, did) draw from the evidence presented. It is true that Mr. Tamraz did not present at trial any air sampling data that showed, at any point during his career, the actual concentrations of manganese fume in his breathing space. Of course, virtually no welder could ever provide this evidence, which is why the law does not require mathematical precision to show toxic exposure. As stated by the *Reference Manual on Scientific Evidence*, “[o]nly rarely are humans exposed to chemicals in a manner that permits a quantitative determination of adverse outcomes Human exposure occurs most frequently in occupational settings where workers are exposed to industrial chemicals like lead or asbestos; however, even under these circumstances, it is usually difficult, if not impossible, to quantify the amount of exposure.”⁶⁰ Rather, Mr. Tamraz was required only to show “with ‘reasonable medical probability,’ that exposure to the defendant’s products or emissions caused [his] injuries.”⁶¹

The case of *Bonner v. ISP Technologies, Inc.* is instructive.⁶² In *Bonner*, the Eighth Circuit Court of Appeals analyzed the quantum of proof of exposure necessary to show causation in a toxic tort case. After plaintiff Bonner was splashed with an organic solvent known as “FoamFlush,” she suffered cognitive impairment and Parkinsonian symptoms. The jury awarded her \$2.2 million in damages, and the defendant manufacturer appealed, asserting (among other things) that there was insufficient evidence of exposure

⁶⁰ Federal Judicial Center, *Reference Manual on Scientific Evidence* 405 (2nd ed. 2000). See *Plourde v. Gladstone*, 190 F.Supp.2d 708, 721 (D. Vt. 2002) (“In most toxic tort cases it is impossible as a matter of practice to quantify with hard proof – such as the presence of the alleged toxic substance in the plaintiff’s blood or tissue – the precise amount of the toxic substance to which an individual plaintiff was exposed.”).

⁶¹ *Stadish*, 2002 WL 1360667 at *7.

⁶² *Bonner v. ISP Technologies, Inc.*, 259 F.3d 924 (8th Cir. 2001).

at toxic levels to support the verdict. The Circuit Court affirmed the judgment, stating that “Bonner did not need to produce a mathematically precise table equating levels of exposure with levels of harm in order to show that she was exposed to a toxic level of FoamFlush, but only evidence from which a reasonable person could conclude that her exposure probably caused her injuries.”⁶³ The court further held that the evidence was sufficient to support the jury’s verdict even though Bonner’s expert “was unable to offer a threshold exposure amount for injury to occur.”⁶⁴ The court explained:

it was not necessary that Bonner’s experts quantify the amount of FoamFlush to which she was exposed in order to demonstrate that she was exposed to a toxic level of BLO. It is sufficient for a plaintiff to prove that she was exposed to a quantity of the toxin that “exceeded safe levels.” Bonner presented witnesses who testified that [1] her exposure to FoamFlush was of a duration and of a volume sufficient to support a conclusion that she inhaled and/or absorbed through her skin at least a quarter of a teaspoon of FoamFlush when she was sprayed with it [and [2]] ingested doses of GHB, BLO’s metabolite, as small as a quarter of a teaspoon can have toxic effects, and that inhalation is a more potent exposure mechanism than is ingestion.⁶⁵

The same analysis applies in this case. Mr. Tamraz was not required to quantify the amount of manganese fume he was exposed to; he was required only to prove he was exposed to amounts that exceeded safe levels. This proof, like Bonner’s, included testimony from the Mr. Tamraz, himself, and also his co-worker, regarding his “[f]requency of exposure, regularity of exposure, and proximity of the . . . product to [the] plaintiff,” as well as “the type of . . . product to which plaintiff was exposed, the type of injury suffered by plaintiff, and other possible sources of plaintiff’s injury.”⁶⁶ Specifically, Mr. Tamraz offered proof at trial that the products he used emitted fumes with high manganese levels; the frequency

⁶³ *Id.* at 928 (citation and internal quotation marks omitted).

⁶⁴ *Id.* at 932.

⁶⁵ *Id.* at 931.

⁶⁶ *Lineaweaver*, 37 Cal. Rptr.2d at 906.

and regularity of his exposure to manganese fumes were both high;⁶⁷ he was occasionally in situations with little ventilation; and his symptoms are entirely consistent with excessive manganese exposure. Even though none of the parties' experts could define the threshold exposure amount for injury to occur, the only expert industrial hygienist who offered any opinion at trial⁶⁸ opined that Mr. Tamraz was regularly and certainly exposed to amounts that *exceeded safe levels*, as defined by the current TLV. And Mr. Tamraz's expert neurologist agreed with his treating neurologist, opining that these excessive exposures caused his symptoms. These opinions enjoyed substantial evidence to support them, and that is all this Court must find to sustain the verdict.

In sum, the Court easily concludes that there was presented at trial substantial evidence to support the opinions of Mr. Tamraz's experts that his exposure to the fumes given off by defendants' products was sufficient to, and did, cause his injuries, with reasonable medical probability. Indeed, given that defendants' own documents discuss the substantial likelihood that welders in "most workplace atmospheres" will experience manganese exposure in excess of the threshold safety level of 0.2 mg/mm³ TLV, and given that about one third of the welders in the OSHA database were, at the time of measurement, experiencing manganese exposure in excess of the same TLV, any inferences and assumptions made by Mr. Tamraz's experts (and by the jury), based on the evidence at trial of Mr.

⁶⁷ Mr. Tamraz testified that, on days that he worked as a welder, he was frequently exposed to copious welding fumes; and employers regularly requested his services, so that the regularity of his work-day exposure was also high. *See Lohrmann v. Pittsburgh Corning Corp.*, 782 F.2d 1156, 1162 (4th Cir. 1986) (sufficiency of evidence of asbestos exposure "would depend upon the frequency of the use of the product and the regularity or extent of the plaintiff's employment in proximity thereto").

⁶⁸ Defendants listed an expert industrial hygienist on their witness list, but did not call him at trial.

Tamraz's actual workplace conditions and exposure, also had substantial evidentiary support.⁶⁹

For these reasons, defendants' motion for judgment as a matter of law, based on insufficient evidence of overexposure to welding fumes, is not well-taken.

C. Product Identification.

Both Mr. and Mrs. Tamraz obtained a verdict against five defendants: (1) BOC Group, Inc., (2) ESAB Group, Inc., (3) Hobart Brothers Company, (4) Lincoln Electric Company, and (5) TDY Industries, Inc. For each plaintiff, however, the jury entered only a single award of compensatory damages, payable jointly from all five defendants – as opposed to five separate awards, payable by each defendant individually. This result was requested and agreed to by the defendants before the Court charged the jury.⁷⁰

With their third set of post-judgment motions, four of the five defendants – all but Lincoln Electric – argue there was insufficient product identification by Mr. Tamraz to support the jury's verdict against them. For example, defendant BOC argues that “plaintiffs failed to carry their burden of establishing that Mr. Tamraz was exposed to a product *manufactured by BOC*,” as opposed to a welding consumable

⁶⁹ Regarding defendants' argument that the opinions expressed by plaintiff's expert industrial hygienist, Mr. Kahane, were unsupported, this Court borrows a comment from another court that was presented with the identical argument: “In our view, however, [plaintiff's expert] drew a reasonable inference rather than make an unwarranted assumption of fact. Apparently the jury agreed.” *Kritser v. Beech Aircraft Corp.*, 479 F.2d 1089, 1095 (5th Cir. 1973) (citing *Sentilles v. Inter-Caribbean Shipping Corp.*, 361 U.S. 107, 109-10 (1959)).

⁷⁰ See trial tr. at 2673-76 (Nov. 20, 2007) (defense counsel agreed that, on the verdict form, “the defendants did not want compensatory damages separated out per defendant,” and “if there is any allocation among the defendants, they will deal with that”). This point is discussed further below, in section III of this opinion.

manufactured by some other entity.⁷¹ Some of the defendants add that there was insufficient identification by Mr. Tamraz of which of their *particular* warnings were inadequate, so that the jury's verdict against them cannot stand. If the Court granted all of the post-judgment motions filed by the four defendants on these bases, Lincoln Electric would be left alone to satisfy the judgment.

To give context to the defendants' motions, the Court first reviews the nature of the welding products used by Mr. Tamraz and the warnings that accompanied them.

1. Background.

The process of welding generally involves the melting of a "welding consumable," which is used to join two pieces of metal. Welding consumables come in two categories: (1) stick electrodes, which are relatively short; and (2) wire, which comes on spools in longer lengths. When using stick electrodes, the welder has to pause periodically to attach a new stick to his welding apparatus; when using wire, the welder pauses to "reload" much less frequently.

The American Welding Society has created a standardized numbering identification system applicable to all welding consumables. For example, a welding stick identified as an "E7018" is: (a) an electrode ("E"); (b) that will produce a weld with a tensile strength of 70,000 p.s.i. ("70xx"); (c) which may be used in all welding positions, including overhead ("xx1x"); and (d) can be used with both direct and alternating current welding machines ("xx18"). As to wire consumables, welders often refer to wire products by the welding process for which they are used. For example, welders may refer to a wire consumable as "MIG" – an acronym for Metal Inert Gas, which is a welding process involving automatic feeding of a continuous, wire consumable shielded by an externally-supplied gas. To a large extent,

⁷¹ Motion at 1 (docket no. 170) (emphasis added).

welding consumables, both electrodes and wire, are fungible – that is, many manufacturers produce E7018 sticks, or MIG wire.

When asked to identify what welding products he used, Mr. Tamraz responded with both standardized AWS identification numbers and also trade names. For example, as discussed further below, Mr. Tamraz testified he used “7018, 6010, [and] 6011” electrodes. He also stated he used “Innershield wire,” referring to a flux-cored wire product (AWS identification number E71T-11) manufactured under the “Innershield” trade name by Lincoln Electric.

With regard to the warnings employed by the defendants during the course of Mr. Tamraz’s career, the evidence showed the warning language did not vary from one defendant to another, even as it evolved. In some cases, there were very minor wording differences from one manufacturer’s label to another; for the most part, however, all of the manufacturers’ warnings adhered to the AWS standards, and changed

in lockstep.⁷²

Specifically, before 1967, none of the defendants supplied any warning with their welding consumables. In 1967, the AWS adopted a mandatory standard warning label, which all five defendants promptly started to use. The 1967 AWS warning stated:

Caution. Welding may produce fumes and gases hazardous to health. Avoid breathing these fumes and gases. Use adequate ventilation. See USAS Z49.1, 'Safety in Welding & Cutting' published by the American Welding Society.⁷³

In addition to AWS documents discussing the adoption of this standard warning, the jury was shown

⁷² See *In re Welding Fume Prods. Liab. Litig.*, 526 F.Supp.2d at 782 & 791-92 (discussing the AWS's adoption of the 1967 and 1979 standard labels).

Indeed, counsel for plaintiffs, in opening statement, explained at length that the defendants all used the same AWS-promulgated warning language from 1967 through the mid-1980's, and defendants adopted this characterization throughout trial. See trial tr. at 492-96 (Nov. 5, 2007) (plaintiffs' opening statement regarding the evolution of industry warning labels); *id.* at 2044 (Nov. 15, 2007) (during oral argument on defendants' mid-trial Rule 50 motions, the Court observed it was "not particularly concerned about the question of the specificity of the labels, which were or were not shown to the jury, because it is true that there are comments by defense counsel and certainly substantial arguments by defense counsel at side bars that the warnings were all, to the extent that they were on products, were all effectively the same, regardless of the nature of the product or the defendant, at least prior to the 1990s time frame.").

It is also notable that, in a prior bellwether trial before this MDL court, the parties agreed that the defendants all used the same warnings. See *Solis v. Lincoln Elec. Co.*, case no. 04-CV-17363 (N.D. Ohio) (O'Malley, J.) (docket no. 195) (Jury Instructions at page 26, stating: "In this case, the evidence has shown that Mr. Solis welded beginning some time in 1974 and ending some time in 1999. During that time frame, defendants used three different warnings: one from 1967 to 1979; one from 1979 to 1997, and one from 1997 forward. Defendants agree that they all employed the same warnings during these three time periods."). The parties agreed, however, not to include this language in the *Tamraz* jury instructions; see trial tr. at 2658-62 (Nov. 20, 2007) (discussing jury instructions regarding consideration of warnings; the draft jury instruction being discussed in this transcript section, which is at docket no. 159, was the instruction used in *Solis*).

⁷³ "Z49.1" refers to American National Standards Institute ("ANSI") Standard Z49.1, entitled "Safety in Welding, Cutting, and Allied Processes." The 1967 version of ANSI Standard Z49.1 is 67 pages long, not including table of contents or appendices, see trial exhs. 1621, 2845.

evidence of this language appearing on the labels that accompanied Hobart, BOC, and Lincoln products.⁷⁴ Counsel for defendants referred repeatedly during trial to “the 1967 warning” that was on the welding consumables used by Mr. Tamraz early in his career, with the understanding that all defendants were supplying the same warning.⁷⁵ Although this warning urged welders to avoid breathing the fumes and gases produced during welding, it did not warn that overexposure to manganese in the fumes could cause permanent brain damage.

In 1979, the AWS adopted a new, mandatory standard warning label. Again, all five defendants changed their label to match the AWS’s mandates, although not until about 1981. The 1979 AWS warning stated, in pertinent part:

FUMES AND GASES can be dangerous to your health.

- Keep your head out of fumes.
- Use enough ventilation or exhaust at the arc or both.
- Keep fumes and gases from your breathing zone and general area.

* * *

See American National Standard Z49.1, “Safety in Welding and Cutting,” published by the American Welding Society.

As with the 1967 warning, counsel for defendants made clear that the 1979 warning was used by all

⁷⁴ See, for example, trial exhibits 92 (Hobart), 1149 (BOC/Airco), and 2008 (Lincoln). As noted above, while the language in these labels is virtually identical, there are very minor differences. For example, some of the defendants’ 1967 labels refer to “fumes and gases,” others refer to “gases and fumes,” and still others refer to “concentrations of fumes and gases.” There are no differences amongst the defendants’ 1967 labels, however, any more substantive than these *de minimis* word choices.

⁷⁵ See, e.g., trial tr. at 563-64 (Nov. 6, 2007) (defense counsel referring in opening statement to “the 1967 warning” used by defendants); *id.* at 842 (Nov. 7, 2007) (defense counsel asking Mr. Tamraz about “the 1967 warning” that would have been in effect when he started welding). See also *id.* at 2036 (Nov. 15, 2007) (during oral argument on the Rule 50 motions, the Court making clear that it had disallowed defense counsel during opening statement from using as demonstrative evidence a “1967 label” that had never actually appeared on any product, not from asserting that all the defendants’ 1967 labels were identical).

defendants.⁷⁶ In addition to AWS documents discussing the adoption of this standard warning, the jury was shown evidence of this language appearing on the labels that accompanied Lincoln products.⁷⁷ As before, this warning directed welders to avoid breathing welding fumes, but did not warn that failure to do so could cause permanent brain damage.

Neither plaintiffs nor defendants adduced any evidence regarding the warnings used by the defendants after the “1979 warning.” Thus, although it was suggested to the jury that some of the defendants modified their welding consumables warnings again in 1985, the jury was not presented with evidence of this subsequent change in language.⁷⁸

At trial, Mr. Tamraz argued that the defendants’ 1967 and 1979 welding consumable warnings were inadequate in several respects. For example, Mr. Tamraz and his experts criticized certain defendants for placing warnings where they were not likely to be seen; disparaged certain labels because they were too small to read; and faulted all labels for referring to other documents, such as the lengthy ANSI Standard Z49.1, rather than setting out warning language in the label, itself. But Mr. Tamraz’s principal, overriding criticism of *every* warning issued by *every* defendant – regardless of when issued – was directed at the label’s content, or lack thereof. Specifically, Mr. Tamraz’s chief argument at trial was that *all* of the labels that accompanied *all* of the products he used during *all* of his career were inadequate, because the labels did not warn explicitly that exposure to welding fumes could cause permanent, irreversible brain

⁷⁶ See, e.g., *id.* at 589 (Nov. 6, 2007) (in opening statement, defense counsel referring, in undifferentiated fashion, to the language of the 1979 warning); *id.* at 1483-1507 (Nov. 12, 2007) (same, in cross-examination of plaintiffs’ witness).

⁷⁷ See *id.* at 1483-1507 (Nov. 12, 2007); see trial exhibits 3081, 9653, and 9664. The Lincoln warnings shown to the jury contained the same language as the AWS standard warning label, but the order of some of the sentences was changed.

⁷⁸ See trial tr. at 492-96 (Nov. 5, 2007) (plaintiffs’ opening statement regarding the evolution of industry warning labels).

damage that becomes progressively worse over time. And the evidence adduced at trial was that, in fact, none of the defendants' labels available to Mr. Tamraz during his career did contain any such explicit warning.⁷⁹

2. Applicable Law.

As this MDL Court has recognized, “[i]t is elementary that in any action claiming injury from a product, the plaintiff must show causal connection between the defendant manufacturer and that product.”⁸⁰ California law is in accord: “Proximate cause is a necessary element of actions for both negligence and strict liability.”⁸¹ In the context of product liability claims, this means that, “to hold a producer, manufacturer, or seller liable for injury caused by a particular product, there must first be proof that the defendant produced, manufactured, sold, or was in some way responsible for the product.”⁸² If a plaintiff cannot adduce sufficiently particularized evidence of exposure to the defendant's product, then

⁷⁹ Mr. Tamraz began welding in 1978 and stopped working in 2004. The only possible exception to the statement that Mr. Tamraz never used a product accompanied by a warning about brain damage was that, in 2002, two years before Mr. Tamraz stopped welding (and one year after he experienced his first symptoms of brain damage), ESAB began using a label that includes the statement: “Overexposure to manganese compounds can affect the central nervous system, symptoms of which are languor, sleepiness, muscular weakness, emotional disturbances, and spastic gate [sic]. The effect of manganese on the nervous system is irreversible. Manganese . . . [has] low OSHA Permissible Exposure Limits and ACGIH Threshold Limit Values that easily may be exceeded.” See trial tr. at 1828-32 (Nov. 13, 2007) (testimony noting that this language, which was on ESAB MSDSs, was added to the warning label). Mr. Tamraz testified, however, that he never saw a label that referred to manganese. *Id.* at 842 (Nov. 7, 2007). Further, defendants objected to introduction of this label at trial on the ground that it was a subsequent remedial measure, and it did not come in to evidence.

⁸⁰ *In re Welding Fume Prods. Liab. Litig.*, 526 F.Supp.2d 775, 796 (N.D. Ohio 2007) (citation omitted).

⁸¹ *Setliff v. E. I. Du Pont de Nemours & Co.*, 38 Cal.Rptr.2d 763, 767 (Cal. Ct. App. 1995).

⁸² *Garcia v. Joseph Vince Co.*, 148 Cal.Rptr. 843, 846 (Cal. Ct. App. 1978).

“there is no causation.”⁸³

A review of several California cases cited by defendants reveals how these rules are applied in practice. In *McGonnell v. Kaiser Gypsum Co.*,⁸⁴ plaintiff McGonnell was a plumber/pipefitter who worked at a Medical Center for 24 years; his duties included cutting through walls and pipes, where he would encounter insulation and fireproofing materials. After McGonnell contracted asbestosis, he sued Kaiser Gypsum and Kaiser Cement, asserting he was exposed to asbestos-containing products they manufactured that were present at the Medical Center where he worked. McGonnell testified that: (1) he “had no knowledge of exposure to products manufactured by [either defendant]; (2) “as far as he knew, he had never worked with Kaiser Gypsum’s products or near others using Kaiser Gypsum products”; and (3) “he had heard of Kaiser Cement Company and seen bags of cement with that name on it, but he could not recall where he had seen the bags.”⁸⁵ Despite this testimony, McGonnell pressed his claims, offering evidence (such as invoices) that “showed products manufactured by Kaiser Gypsum might have been delivered to [the] Medical Center . . . and possibly used in building additions or renovations” and showed further that “plastic cement [manufactured by Kaiser Cement] might have been used in construction at [the Medical Center].”⁸⁶

⁸³ See *McGonnell v. Kaiser Gypsum Co., Inc.*, 120 Cal.Rptr.2d 23, 27 (Cal. Ct. App. 2002) (“A threshold issue in asbestos litigation is exposure to the defendant’s product. The plaintiff bears the burden of proof on this issue. If there has been no exposure, there is no causation.”). See also *Dumin v. Owens-Corning Fiberglas Corp.*, 33 Cal.Rptr.2d 702, 704 (Cal. Ct. App. 1994) (“The question is whether this evidence would support a jury determination that [the plaintiff] was exposed to [the defendant’s product], since [the plaintiff] must establish exposure to prove that his asbestos disease was caused by [the defendant’s] conduct in distributing its product.”).

⁸⁴ 120 Cal.Rptr.2d 23 (Cal. Ct. App. 2002).

⁸⁵ *Id.* at 25.

⁸⁶ *Id.* at 26.

In assessing this evidence of exposure to the defendants' products, the *McGonnell* court observed that "McGonnell was one of the best persons, if not the best person, to identify the various products and substances to which he had been exposed during his employment."⁸⁷ Having failed to "place any Kaiser products at his place of employment" through direct recollection, it became McGonnell's burden to "produce some circumstantial evidence to establish exposure to Kaiser products."⁸⁸ The court, viewing all of the evidence in a light most favorable to McGonnell, agreed that "it is at least within the realm of possibility that McGonnell encountered a wall with Kaiser [Gypsum] joint compound during his 24 years of employment at [the Medical Center]," and that "Kaiser Cement products might have been used once on a construction project [there]."⁸⁹ But this evidence was not substantial enough to avoid judgment as a matter of law. The court granted summary judgment to the defendants, concluding: "it is not enough to produce just *some* evidence [of exposure to defendants' products]. The evidence must be of sufficient quality to allow the trier of fact to find the underlying fact in favor of [the plaintiff]. All that exists in this case is speculation that at some time McGonnell might have cut into a wall that might have contained Kaiser joint compound that might have contained asbestos."⁹⁰ The *McGonnell* court did not set the evidentiary bar high, but concluded that the circumstantial evidence and inferences presented by McGonnell failed to clear the modest legal hurdle.

Defendants also cite *Dumin v. Owens-Corning Fiberglas Corp.*,⁹¹ which contains a similar analysis.

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.* at 28.

⁹⁰ *Id.* at 29 (emphasis added).

⁹¹ 33 Cal.Rptr.2d 702 (Cal. Ct. App. 1994).

In *Dumin*, the plaintiff could not “identify [defendant Owen-Corning’s product] Kaylo as one of the asbestos products to which he was exposed, but instead relie[d] upon circumstantial evidence to establish exposure.”⁹² Viewed “in its best light,” the plaintiff’s circumstantial evidence was that: “(1) [he] was aboard the [ship] Pocono in 1953 and 1954, and his duties included making any necessary boiler repairs with insulation materials; (2) the Pocono was home ported at the Norfolk Naval Shipyard; (3) Kaylo was used at the Norfolk Naval Shipyard as one of many asbestos insulation products at some time around the early 1950’s; and (4) the Pocono’s repair supplies were probably received from the Norfolk Naval Shipyard.”⁹³ The question presented to the appellate court was “whether this evidence would support a jury determination that [the plaintiff] was exposed to [Owens-Corning’s] Kaylo, since [he] must establish exposure to prove that his asbestos disease was caused by [Owens-Corning’s] conduct in distributing its product.”⁹⁴ The court affirmed the trial court’s entry of a directed verdict because “a conclusion that [the plaintiff] was exposed to . . . Kaylo while aboard the Pocono in 1953 and 1954 would require a stream of conjecture and surmise.”⁹⁵ Without a stronger inferential basis upon which to conclude that the plaintiff suffered actual exposure to the defendant’s product, the law required a verdict be directed in Owens-Corning’s favor.

Defendants next cite *Garcia v. Joseph Vince Co.*,⁹⁶ a case with facts worthy of a law school exam. In *Garcia*, the plaintiff’s “eye was injured when an opponent’s sabre broke through a fencing mask worn

⁹² *Id.* at 703.

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.* at 706.

⁹⁶ 148 Cal.Rptr. 843 (Cal. Ct. App. 1978).

by [plaintiff] during a fencing bout.”⁹⁷ After the accident, the sabre was examined and then “placed back in the team bag” containing other blades; “the identity of the particular blade in question was thereby lost.”⁹⁸ All parties agreed that the sabre had been manufactured by one of two defendant companies, known as “American” and “Vince,” but “which one of the two was unknown. There was no evidence that the blade was in fact known to have been manufactured by American or to have been manufactured by Vince.”⁹⁹ At the close of evidence, the trial court entered judgment in favor of the defendants. The appellate court affirmed, noting that, to hold a defendant “liable for injury caused by a particular product, there must first be proof that the defendant produced, manufactured, sold, or was in some way responsible for the product.”¹⁰⁰ The *Garcia* court concluded that, in the peculiar circumstances presented, “[t]he jury on the basis of [the] evidence would be purely speculating as to who should be liable.”¹⁰¹ Without some valid evidentiary basis for finding *which* defendant had actually manufactured the blade that caused the plaintiff’s injury, both defendants were entitled to a directed verdict.¹⁰²

⁹⁷ *Id.* at 845.

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.* (quoting *Products Liability: Necessity and Sufficiency of Identification of Defendant as Manufacturer or Seller of Product Alleged to Have Caused Injury*, 51 A.L.R.3d 1344, 1349 (1973)).

¹⁰¹ *Id.* at 846. The court added that “the facts gave equal support to two inconsistent inferences thus inviting a verdict based purely on conjecture.” *Id.* at 847.

¹⁰² The *Garcia* court also distinguished the famous California case of *Summers v. Tice*, 199 P.2d 1 (Cal. 1948), where two hunters shot toward the plaintiff and birdshot from one of their guns injured the plaintiff’s eye. In that case, “both defendants had acted negligently by shooting in [the plaintiff’s] direction,” while in *Garcia*, at least one of the defendants (the one who had not manufactured the sabre) was clearly not negligent. *Id.* at 847.

A final instructive case is *Lineaweaver v. Plant Insulation Co.*,¹⁰³ in which three different plaintiffs – Ward, King, and Lineaweaver – sought damages due to asbestos exposure. The trial court granted a directed verdict in favor of defendant Plant, “which was the exclusive Northern California distributor of Fibreboard insulation products, marketed under the Pabco trademark,” and against all three plaintiffs.¹⁰⁴ After examining the evidence each plaintiff supplied of his exposure to Pabco, the appellate court affirmed as to plaintiffs Ward and King, but reversed as to Lineaweaver.

In reviewing the evidence, the *Lineaweaver* court found that none of the plaintiffs had offered testimony that he used or was exposed to Pabco while on the job; they all presented only circumstantial evidence that Pabco was present at their worksites and they were exposed to it. The appellate court went on to take careful measure of the substantiality of this circumstantial evidence. As to plaintiff Ward, the evidence “only show[ed] that Pabco may have been minimally used as a ‘fill-in’ at uncertain times aboard one out of every three or four of the approximately 100 ships serviced” at the shipyards where he worked.¹⁰⁵ This did not amount to substantial evidence that “Pabco asbestos products were actually used, or even probably used, on any of the ships at the time Ward was serving aboard them.”¹⁰⁶ Plaintiff King offered similar evidence, which the court found insubstantial: “Even accepting this evidence as sufficient to permit an inference that some amount of Pabco products were [*present*] at [the shipyards where King worked] during the time of King’s employ, the evidence is wholly inadequate to support the conclusion that King was *exposed* to Pabco. It would be unreasonable to infer that King was exposed to Pabco

¹⁰³ 37 Cal. Rptr.2d 902 (Cal. Ct. App. 1995).

¹⁰⁴ *Id.* at 904.

¹⁰⁵ *Id.* at 909.

¹⁰⁶ *Id.*

asbestos products which were only incidentally used at the sprawling shipyards.”¹⁰⁷

The court’s calculus, however, was different with respect to plaintiff Lineaweaver, because his circumstantial evidence of actual exposure was stronger. In reaching this conclusion, the *Lineaweaver* court was scrupulous in allowing for reasonable inferences in Lineaweaver’s favor, and careful to distinguish *Dumin*:

Lineaweaver . . . presented sufficient evidence of exposure to Plant[-]supplied asbestos products, as follows: (1) Plant was the exclusive distributor in Northern California of Pabco asbestos insulation products beginning in 1948; (2) Lineaweaver worked at the Standard Oil refinery from 1950 to 1984, repeatedly working with and around asbestos insulation; (3) Lineaweaver worked throughout the sprawling refinery which has insulation over about two-thirds of its pipes and much of its equipment; (4) Lineaweaver saw boxes of Pabco products at the refinery; (5) Plant was a significant supplier of asbestos products, performing about 50 percent of the insulating work at the refinery in the 1960’s; [and] (6) another major insulation contractor used Pabco and another product as “fill-in” supplies which constituted 10 to 15 percent of the refinery’s insulation installed by that contractor.

While there was no direct evidence that Lineaweaver was exposed to Plant[-]supplied Pabco, the circumstantial evidence was sufficient to support a reasonable inference of exposure. Unlike [*Dumin*], in which we found insufficient evidence of exposure to a particular asbestos product, plaintiff has established that defendant’s product was definitely at his work site and that it was sufficiently prevalent to warrant an inference that plaintiff was exposed to it during his more than 30 years of working with and around asbestos throughout the refinery.¹⁰⁸

¹⁰⁷ *Id.* (emphasis added).

¹⁰⁸ *Id.* at 908.

The *McGonnell*, *Dumin*, *Garcia*, and *Lineaweaver* cases¹⁰⁹ all make clear that, “[u]ltimately, the sufficiency of the evidence of causation will depend on the unique circumstances of each case.”¹¹⁰ If a plaintiff offers only weak, circumstantial evidence of exposure to a defendants’ product, “creat[ing] a dwindling steam of probabilities that narrow into conjecture,” then judgment as a matter of law is appropriate.¹¹¹ If, however, the plaintiff offers at trial “evidence sufficient to support a reasonable inference of exposure” to the defendant’s product, then a motion for judgment as a matter of law must be denied.¹¹²

3. Tamraz’s Evidence of Exposure to Defendants’ Products.

Unlike the cases cited in the preceding discussion, the tradesman-plaintiff in this case offered direct evidence of his exposure to the defendants’ products. Specifically, plaintiffs’ counsel asked Mr. Tamraz at trial to identify the companies who manufactured the welding consumables he used during his career.

¹⁰⁹ In addition to citing *McGonnell*, *Dumin*, *Garcia*, and *Lineaweaver* in support of their motions for judgment as a matter of law on the basis of insufficient evidence of product exposure, the defendants also cite *Setliff v. E. I. Du Pont de Nemours & Co.*, 38 Cal.Rptr.2d 763 (Cal. Ct. App. 1995), and *Bockrath v. Aldrich Chemical Co., Inc.*, 980 P.2d 398 (Cal. 1999). These cases both involve very generalized allegations of exposure to dozens of products made by dozens of manufacturers. The *Setliff* and *Bockrath* courts each ruled that the plaintiff’s “toxic soup” complaint required a greater degree of pleading specificity, including identification of “each product that allegedly caused the injury” and an allegation that “each toxin [the plaintiff] absorbed was manufactured or supplied by a named defendant.” *Bockrath*, 980 P.2d at 404; *see Setliff*, 38 Cal.Rptr.2d at 767 (affirming judgment in favor of defendants because plaintiff admitted in his amended complaint that was “unable to identify which of the products separately or jointly injured him” and “could not identify the specific chemicals and toxics [sic] involved in his injury or which defendant manufactured the product or products responsible for his injury”). Both *Bockrath* and *Setliff* addressed motions for demurrer made at the pleading stage, not post-trial motions, and so are not fully apposite.

¹¹⁰ *Lineaweaver*, 37 Cal. Rptr.2d at 906.

¹¹¹ *Id.* at 909.

¹¹² *Id.* at 908.

The initial colloquy on this subject is set out below.

- Q. Were you welding in 1992?
A. **Yes.**
Q. At times, did you use welding consumables manufactured by ESAB?
A. **Yes.**
Q. What other manufacturers' consumables did you use?
A. **Well, that I can recall, I used Lincoln quite a bit. I used Hobart, Airco, Linde, ESAB, and McKay. That's about all I can remember.**
Q. Thank you.¹¹³

This colloquy, by itself, distinguishes this case from those cited by defendants and discussed above. In none of those cases did the plaintiff, himself, provide direct testimonial evidence that he used or was exposed to the products in question. Here, Mr. Tamraz stated explicitly that he used welding consumables manufactured by defendants ESAB, Hobart, and Lincoln. He also stated: (1) he used "McKay" welding consumables, and it is not disputed that defendant TDY is responsible for products distributed under this brand name before 1992;¹¹⁴ and (2) he used Airco welding consumables, and it is not disputed that defendant BOC is responsible for products distributed under this brand name through 1986.¹¹⁵

While it might fairly be argued that this colloquy, alone, provides substantial evidence that Mr. Tamraz was exposed to manganese fumes emitted by products manufactured by at least some of the five defendants, plaintiff's counsel adduced at trial additional testimony from Mr. Tamraz on this subject, set out here at length:

- Q. Just so we're clear, I asked you this early on, but I would like to take the liberty and

¹¹³ Trial tr. at 786 (Nov. 7, 2007).

¹¹⁴ As discussed further below, before December 12, 1992, TDY sold welding consumables under the brand name "Teledyne McKay;" after this date, Hobart sold welding consumables under the brand name "McKay."

¹¹⁵ As discussed further below, after 1986, Airco products were sold by defendant Lincoln Electric. Mr. Tamraz also testified he used "Linde" welding consumables, but there was presented at trial no evidence regarding which defendant, if any, manufactured Linde consumables.

ask you again. Tell the jury the different welding manufacturers whose products you used. I believe you said Lincoln, Airco, Teledyne, ESAB?

A. **Lincoln, Airco, McKay, ESAB, Hobart, Linde. I have used more, but that's all I can remember.**

Q. Are you familiar with something called CE Toland?

A. **Yes.**

Q. What is that?

A. **It is a company I worked for.**

Q. And on that job, do you remember particular consumables that you were using?

A. **Oh, yeah.**

Q. Which ones?

A. **We used Lincoln 7018 along with, I think, Hobart 7018. That is this rod here. It's a good electrode. It's an excellent rod. I used that on the Toland job, and I used Lincoln Innershield, NR211. And then R232, that's the spool here.**

Q. Did you work for a company called Cabrillo Hoist?

A. **Yes, I did.**

Q. Where did you work for them?

A. **Oh, throughout my whole career. Every time I worked for them it was basically just stick welding.**

Q. Do you remember --

A. **They erected man lifts, the exterior elevators. They are temporary elevators you see, they are orange. They call them man lifts. They take the construction workers up and down. As the job progresses, eventually they take the elevator down. Man erection they call it.**

Q. Do you remember the names of the products?

A. **With them I used fleetweld 5, 6011.**

Q. Who manufactured that?

A. **Lincoln.**

Q. Any other?

A. **And I used Lincoln 7018.**

Q. Anything else? Any other defendant products, ESAB, Airco, Teledyne?

A. **I can't recall that, for that particular company.**

Q. How about Lee's Imperial Welding?

A. **Yes.**

Q. What jobs did you work for them, if you recall?

A. **I worked on the Great Mall, the big Ford Motor Company plant, the Ford Motor Company. It was an enormous plant they shut down. Actually, we went in there and retrofitted the job. We used a lot of NR211 Lincoln.**

Q. Mejia Steel?

A. **Mejia.**

Q. Whose product do you recall?

A. **We used Lincoln NR232 the whole job, and also Lincoln 7018. That was all they would let us touch in that freeway overpass.**

Q. How about the ENDI Metal Works?

- A. **I worked for them. That was a good company. I worked for them on and off for years. What do you want to know?**
- Q. Same thing. Which products?
- A. **For ENDI, I used P-5 or 5P6010.**
- Q. Give us the name of the manufacturers, do you recall?
- A. **The name of the manufacturer?**
- Q. Yes.
- A. **Lincoln, Hobart, Airco.**
- Q. Any others?
- A. **Linde, McKay. This is back earlier in my career, yes.**
- Q. Schrader Iron Works, are you familiar?
- A. **Yes.**
- Q. Do you remember the product?
- A. **Lincoln NR211, a lot of 7018, Lincoln. A lot of P56010 and N6011 stick.**¹¹⁶

Plaintiffs' counsel then concluded his direct examination of Mr. Tamraz by showing a picture of the logos of all five of the defendants' welding products:

- Q. Look up at the screen. I think you have testified that you used the products of every one of those defendants whose logos are on the screen, correct?
- A. **Yes, that's right. Teledyne McKay, is that the same one? The same product, right? Is that the same name?**
- Q. Teledyne McKay?
- A. **Yes. I have used every one.**¹¹⁷

In addition to the product identifications adduced during his direct testimony, Mr. Tamraz also testified as follows on cross-examination by defense counsel:

- Q. Could you identify for me what products of these defendants you utilized?
- A. **What products?**
- Q. What products.
- A. **You mean like this?**
- Q. Yes. What products?
- A. **You mean the names of the companies?**
- Q. Companies and identify the products.
- A. **You have the Lincoln Innershield wire, Lincoln on stick wire, Lincoln stick electrode. You have Hobart stick; I think I have used some Hobart MIG.**

¹¹⁶ Trial tr. at 820-23 (Nov. 7, 2007).

¹¹⁷ *Id.* at 829-30.

- Q. Can you be more specific with the actual product type?
A. **What are you getting at? I don't understand.**
Q. You know, the number on the product.
A. **The number of the product? You mean like the 7018s?**
Q. Yes.
A. **I have used Lincoln NR311, NS3M, .120 Innershield wire, 7018, 6010, 6011, stuff like that.**
Q. Anything else from other manufacturers?
A. **Yeah. I think I used some McKay 30816 lime coat for stainless steel welding.**
Q. Any other companies?
A. **Airco 7018s, ESAB – I think the ESAB was stick. I'm not sure which one it was.**
Q. Any other companies?
A. **I have used some, I think Linde 7014 stick.**
Q. No trouble remembering the products you used from these companies?
A. **Well, yeah. There is trouble. I mean, I can't remember them to the T, but yeah.**
Q. Okay. But you can remember –
A. **I'm pretty sure.**¹¹⁸

Finally, in addition to Mr. Tamraz's testimony, a representative from ESAB arguably *conceded* that Mr. Tamraz used their welding products.¹¹⁹

The question presented by the defendants' motions is whether this testimony is "substantial

¹¹⁸ *Id.* at 856-57.

¹¹⁹ ESAB Vice President Stanley Ferree testified on cross-examination as follows:

- Q. Are you aware that Jeff Tamraz used welding rods and welding wire manufactured by ESAB?
A. **Yes, I think he has identified us as one of the suppliers.**
* * *
Q. Okay. Did [another welder who filed suit, Mr. Charles Ruth] use your company's products?
A. **I think he identified some, yes.**
Q. And he used welding flux cored wire, just like Mr. Tamraz, right?
A. **I'm not sure they were the same type. I think based on Mr. Tamraz's deposition he used mostly the self-shielded type. I think Mr. Ruth used gas shielded type.**
Q. Did they both use wire and use the flux core arc welding process?
A. **They both used the flux core arc welding process, yes.**

Id. at 1819, 1824 (Nov. 13, 2007).

evidence” that Mr. Tamraz was exposed to their products. The Court answers this question for each defendant, below.¹²⁰

4. Analysis.

a. ESAB.

As revealed by the testimony quoted above, Mr. Tamraz stated to the jury four different times that he used welding consumables manufactured by ESAB. One of these identifications was slightly more specific – “I think the ESAB was stick. I’m not sure which one it was.” In contrast to Mr. Tamraz’s more-specific testimony about Lincoln products, however – for example, “I have used Lincoln NR311, NS3M, .120 Innershield wire, 7018, 6010, 6011, stuff like that” – Mr. Tamraz did not identify exactly which ESAB welding consumables he used. ESAB asserts Mr. Tamraz’s testimony thus remains insufficient to establish exposure to their products, because Mr. Tamraz must identify a “particular product” to which he was exposed.

Put simply, none of the cases cited by ESAB stands for this proposition. Statements in *Garcia* and *Lineaweaver* that a plaintiff must supply substantial evidence of exposure to a “particular” product are

¹²⁰ In addition to this positive evidence supplied by plaintiff, it is also notable that defendants never argued the negative – that is, defendants did not assert they did *not* supply their products to Mr. Tamraz’s employers. In all *Welding Fume* MDL cases, the parties have focused their discovery on determining which manufacturers’ products plaintiff used; this discovery includes not only asking plaintiff whose welding consumables he recalls using, but also, where possible, asking plaintiff’s coworkers what products they used, obtaining welding rod purchasing records from plaintiff’s employers, and subpoenaing sales records from welding rod distributors and suppliers who served those employers. In this case, Mr. Tamraz’s second amended complaint included claims against defendants Thermadyne Holdings Corporation and Deloro Stellite Company, *see* dkt. no. 22, but Mr. Tamraz voluntarily dismissed those defendants after failing to discover sufficient proof that he used their products, *see* dkt no. 47. While it certainly remains Mr. Tamraz’s burden at trial to prove he was exposed to each defendant’s products, the fact that defendants did not assert their products were unavailable at Mr. Tamraz’s work sites has a modicum of weight.

pointed at circumstances where there was *no* particularity of identification at all, not even by manufacturer; the courts' statements do not mean that California law requires plaintiffs to supply direct testimony of the model or serial numbers of the toxic products to which they were exposed.¹²¹ In *Dumin*, the plaintiff "did not say with even a semblance of certainty" that *any* product manufactured by the defendant was available at his worksite.¹²² Here, in contrast, Mr. Tamraz stated with no uncertainty that he actually used ESAB products.

ESAB does not dispute that Mr. Tamraz's testimony supplied substantial evidence of exposure to *some* of its mild steel welding consumable products, even if Mr. Tamraz did not identify precisely which ones.¹²³ Further, the evidence is undisputed that all mild steel welding consumables contain manganese. And, as discussed above in section II.B of this opinion, defendants' own documents concede that the manganese in fumes given off by mild steel welding consumables will frequently exceed the TLV. In sum, Mr. Tamraz's direct testimony that he used welding consumables manufactured by ESAB provides substantial evidence that he was exposed to toxins emitted by ESAB's products. No more is required to defeat ESAB's motion.

b. Hobart.

¹²¹ See *Garcia*, 148 Cal. Rptr. at 844 ("to hold a producer, manufacturer, or seller liable for injury caused by a particular product, there must first be proof that the defendant produced, manufactured, sold, or was in some way responsible for the product"); *Lineaweaver*, 37 Cal. Rptr. at 906 (the plaintiff "rightly bears the burden of proving exposure to a particular defendant's product").

¹²² *Dumin*, 33 Cal. Rptr.2d at 705.

¹²³ An analogy: if the evidence shows that Consumer obtained five different types of apples from Orchard, and Consumer later used two of those apples to bake a pie, and Consumer ate the pie, then there is substantial evidence that Consumer ate Orchard's apples – even if it is not known *which* of Orchard's apples he ate.

The Court's analysis for Hobart is virtually the same. As revealed by the testimony quoted above, Mr. Tamraz stated to the jury six different times that he used welding consumables manufactured by Hobart. Twice, Mr. Tamraz even identified more precisely the type of Hobart welding consumables he used: "We used Lincoln 7018 along with, I think, Hobart 7018," and also "You have Hobart stick; I think I have used some Hobart MIG." This testimony regarding use of Hobart products was unequivocal, as was his identification of the Hobart logo.

Like ESAB, Hobart argues that Mr. Tamraz was required to identify with greater particularity the exact Hobart welding consumables he used. Addressing this point further, Hobart observes that, when Mr. Tamraz testified that he used Hobart 7018 and Hobart MIG, he stated "I think;" Hobart insists this language classifies Mr. Tamraz's recollection as mere conjecture. Again, however, Mr. Tamraz was not required to identify exactly which Hobart welding consumables he used; he was required only to provide substantial evidence that he used *some* Hobart welding consumables, and that his use of Hobart welding products (regardless of precisely which ones) exposed him to manganese fumes. Further, even if the Court agreed that Mr. Tamraz's use of the phrase "I think" indicated he was less than sure, it certainly does not weaken his testimony to the point of speculation. Mr. Tamraz's direct testimony that he used welding consumables manufactured by Hobart meets the test for substantial evidence of exposure.

c. TDY.

Mr. Tamraz stated to the jury four different times that he used McKay welding consumables. TDY offers three reasons why this identification was not substantial evidence that Mr. Tamraz was exposed to welding consumables that were manufactured by TDY. The first reason is the same as the one offered by ESAB and Hobart – Mr. Tamraz did not offer sufficiently particularized evidence of which TDY welding

consumables he used. For the same reasons this argument failed for ESAB and Hobart, it fails for TDY.

The second and third reasons offered by TDY both have to do with the fact that the McKay brand name did not always belong to TDY during Mr. Tamraz's welding career. As the Court instructed the jury, "defendant TDY Industries, Inc. ceased manufacturing welding consumables on December 12, 1992."¹²⁴ TDY notes that, before this time, it sold welding consumables under the brand name "Teledyne McKay;" after that time, TDY left the welding consumables business and defendant Hobart sold welding consumables under the "McKay" brand name.¹²⁵ TDY argues that, because Mr. Tamraz stated he used "McKay" welding consumables, and not "Teledyne McKay" consumables, his product identification is insufficient. TDY further argues that, even if Mr. Tamraz's reference to "McKay" consumables was otherwise sufficient to implicate TDY, his product identification still fails because Mr. Tamraz did not make clear that he used these "McKay" consumables before 1993. Given the applicable legal standards, however, the Court is ultimately unpersuaded that TDY is entitled to judgment notwithstanding the verdict.

To begin, Mr. Tamraz's statement that he used "McKay" welding consumables and not "Teledyne McKay" consumables provides little traction for TDY's product identification argument. Welders commonly use nicknames and verbal shorthand when referring to the consumables they use, such as "MIG" for Metal Inert Gas wire, or "Fleetweld 5" for Lincoln's 6010 welding rod. By itself, Mr. Tamraz's

¹²⁴ Trial tr. at 2882 (Nov. 21, 2007). The Court further instructed the jury: "Thus, you must find in favor of TDY Industries on all of Mr. Tamraz's claims if you determine that Mr. Tamraz did not use any TDY products before December 12, 1992, or that any such use of TDY products did not lead to any harm to Mr. Tamraz before December 12, 1992. Further, during your deliberations, you are to consider the conduct of TDY Industries only before December 12, 1992." *Id.* at 2882-83.

¹²⁵ In fact, in its post-judgment brief, TDY merely states that, after 1992, "another manufacturer" sold welding consumables under the McKay brand name; for some reason, TDY is careful not to identify this manufacturer by name, possibly because it would tend to undermine Hobart's analogous post-judgment motion. Motion at 1 (docket no. 173). Today, Hobart sells McKay-branded welding rods. Solely for ease of reference, the Court refers in this opinion to the "other manufacturer" as Hobart, although this is immaterial to the Court's conclusion.

statement that he used “McKay” welding consumables is at least as consistent with his having used TDY-manufactured products as with his having used a “McKay” product manufactured by Hobart; his testimony certainly does not mandate an inference that he used only Hobart’s McKay rods. And “if several reasonable inferences may be drawn, the motion for judgment notwithstanding the verdict should be denied.”¹²⁶

More to the point, there was introduced at trial enough evidence upon which a reasonable jury could conclude that the “McKay” products referred to by Mr. Tamraz were, in fact, manufactured by TDY. Mr. Tamraz was questioned explicitly about the 1992 time period, when McKay consumables were still being manufactured by TDY:

- Q1. Were you welding in 1992?
- A1. **Yes.**
- Q2. At times, did you use welding consumables manufactured by ESAB?
- A2. **Yes.**
- Q3. What other manufacturers’ consumables did you use?
- A3. **Well, that I can recall, I used Lincoln quite a bit. I used Hobart, Airco, Linde, ESAB, and McKay. That’s about all I can remember.**
- Q4. Thank you.¹²⁷

In addition, Mr. Tamraz was shown the “Teledyne McKay” logo and he confirmed he used that

¹²⁶ *Latex Glove*, 121 Cal.Rptr.2d at 309.

¹²⁷ Trial tr. at 786 (Nov. 7, 2007). It is certainly a fair reading of this colloquy that Mr. Tamraz used McKay welding rods in 1992, which is when TDY manufactured them. Conceivably, Mr. Tamraz’s last answer (A3) in this colloquy could be read as “separated” from the preceding question about the 1992 time-frame (Q1), but the jury had a basis to draw a reasonable inference that Mr. Tamraz’s last answer continued to be responsive to the question about his welding experiences in 1992.

manufacturer's products.¹²⁸ He also testified he used McKay products "earlier in [his] career," which began in 1978.¹²⁹

Defendants argue that each bit of this evidence regarding time-frame suffers some weakness, so that the sum of this evidence provides insufficient support for the conclusion that Mr. Tamraz used a McKay welding consumable manufactured by TDY *before 1993* (as opposed to a McKay consumable manufactured later by Hobart). For example, defendants assert that: (1) "earlier in my career" can still mean "after 1992;" and (2) Mr. Tamraz seemed initially unsure whether the "Teledyne McKay" logo he

¹²⁸ Mr. Tamraz testified on direct examination:

Q. Look up at the screen. I think you have testified that you used the products of every one of those defendants whose logos are on the screen, correct?

A. **Yes, that's right. Teledyne McKay, is that the same one? The same product, right? Is that the same name?**

Q. Teledyne McKay?

A. **Yes. I have used every one.**

Trial tr. at 829-30 (Nov. 7, 2006). While defendants assert this colloquy shows Mr. Tamraz was unsure whether the "McKay" welding consumables he used were actually manufactured by TDY's Teledyne McKay, it is just as reasonable to infer that Mr. Tamraz initially asked for clarification but then became sure of his identification, answering unequivocally. Defendants have also suggested informally that the Teledyne McKay logo shown to Mr. Tamraz was a mock-up created by counsel, and not a logo actually ever used by TDY. Even assuming this is true, it does not subtract from Mr. Tamraz's statement that he used a product with the Teledyne McKay name.

¹²⁹ Mr. Tamraz testified on direct examination:

A. **For ENDI [Metal Works], I used P-5 or 5P6010.**

Q. Give us the name of the manufacturers, do you recall?

A. **The name of the manufacturer?**

Q. Yes.

A. **Lincoln, Hobart, Airco.**

Q. Any others?

A. **Linde, McKay. This is back earlier in my career, yes.**

Trial tr. at 823 (Nov. 7, 2007).

was shown was the same as the logo on the products he used.¹³⁰

The Court agrees with defendants that the foundation constructed by Mr. Tamraz to support his assertion that he used TDY-manufactured welding consumables could have been more solid and that, based on this evidence, the jury could reasonably have rendered a verdict in TDY's favor. But the Court is also mindful that it may grant TDY's motion "only if it appears from the evidence, viewed in the light most favorable to [Mr. Tamraz], that there is *no* substantial evidence to support the verdict. If there is *any* substantial evidence, or reasonable inferences to be drawn therefrom, in support of the verdict, the motion should be denied."¹³¹

In this case, the jury was presented with testimonial evidence directly from Mr. Tamraz that he used Teledyne McKay welding consumables when he was welding *in 1992*. Regardless of whether he called these consumables "McKay" rods, or "Teledyne McKay" rods, or even "Teledyne" rods, it is not disputed that a 1992 consumable so identified had to have been a TDY product. Hobart was not responsible for any "McKay" welding consumable until 1993.¹³²

This Court may not re-weigh the evidence nor assess credibility. The Court instructed the jury it could only find against TDY if it determined that Mr. Tamraz used TDY products manufactured before

¹³⁰ Defendants also initially argued there was no such thing as a "McKay 30816 lime coat" welding consumable, which Mr. Tamraz testified he had used. *See* trial tr. at 857 (Nov. 7, 2007) ("I think I used some McKay 30816 lime coat for stainless steel welding."); *id.* at 2038 (Nov. 15, 2007) ("There is no such product as a McKay 30816 lime coat. I guess, you know, in all fairness, that could be – there is a 308 product. There is a 316 product. But there is no such thing as a 30816."). Plaintiffs, however, produced a document showing TDY manufactured a welding rod with the AWS classification "E308-16." *See* docket no. 154, exh. C.

¹³¹ *Latex Glove*, 121 Cal.Rptr.2d at 309. (emphasis added).

¹³² Indeed, as plaintiffs point out, given that welding rods often sit in storage for a period of time after manufacture and purchase, it is quite possible that a "McKay" welding rod used in 1993 or later was manufactured by TDY.

December 12, 1992, and – while the jury had to engage in some reasonable inferential leaps to reach its final determination – there was substantial evidence to support its conclusion that TDY was liable. Accordingly, TDY’s motion, based on lack of product identification, must be denied.

d. BOC.

Mr. Tamraz stated to the jury four different times that he used “Airco” welding consumables. Borrowing a page from TDY’s motion, BOC argues this product identification was not substantial evidence that Mr. Tamraz was exposed to welding consumables that were manufactured *by BOC*, because the Airco brand name did not always belong to BOC during Mr. Tamraz’s welding career. This time, however, the Court agrees: unlike in the case of TDY, Mr. Tamraz did not adduce substantial evidence that he used Airco products manufactured by BOC during the relevant time-frame.¹³³

As the Court instructed the jury, BOC “ceased manufacturing welding consumables completely after 1986. * * * After 1986, Airco products were sold under that name by defendant the Lincoln Electric Company.”¹³⁴ As such, defendant BOC may be found liable to Mr. Tamraz only if the jury received substantial evidence that he was exposed to Airco welding consumables manufactured in 1986 or before. None of the time-frame references offered by Mr. Tamraz, however, provide more than a speculative basis upon which to reach this conclusion.

¹³³ Like defendants ESAB, Hobart, and TDY, BOC also argued that Mr. Tamraz did not offer sufficiently particularized evidence of which BOC welding consumables he used. Except to the extent stated below, for the same reasons this argument failed for ESAB, Hobart, and TDY, it fails for BOC.

¹³⁴ Trial tr. at 2882 (Nov. 21, 2007). The Court further instructed the jury: “Thus, you must find in favor of the BOC Group, Inc. on all of Mr. Tamraz’s claims if you determine that Mr. Tamraz did not use any Airco products before 1986. Further, during your deliberations, you are to consider the conduct of the BOC Group only before 1986.” *Id.*

A comparison of TDY's and BOC's product-identification evidence is illustrative. Mr. Tamraz was shown a "Teledyne McKay" logo and testified he used products manufactured by that defendant. The "Teledyne McKay" logo shown was different from the "McKay" logo that was used later, by Hobart. In contrast, Mr. Tamraz was simply shown an "Airco" logo, and there was presented no evidence suggesting this logo was different before 1987 (when BOC manufactured Airco consumables) compared to after 1986 (when Lincoln manufactured Airco consumables). In other words, Mr. Tamraz's testimony regarding product branding did nothing to differentiate Lincoln's Airco products from BOC's Airco products.

Mr. Tamraz also testified regarding the products he used in 1992, when "McKay" consumables were still being manufactured by TDY. Mr. Tamraz's testimony that he used Airco products in 1992, however, shows only that he was then using a Lincoln consumable; it says nothing about whether he had used a BOC-manufactured Airco consumable six-or-more years earlier. Finally, Mr. Tamraz testified he used McKay products "earlier in his career," but he did not so testify about Airco products.¹³⁵ Ultimately, while the jury was presented with substantial evidence from which it could reasonably infer that Mr. Tamraz used TDY-manufactured "McKay" consumables, there was no similar time-frame evidence from which a jury could draw reasonable inferences that Mr. Tamraz used BOC-manufactured "Airco" consumables.

In *Garcia*, it was certain the plaintiff had been injured by a sabre manufactured by either American or Vince, but the evidence would have required a jury to speculate which one. In this case, it is certain that Mr. Tamraz used Airco welding consumables manufactured by either Lincoln or BOC, but Mr.

¹³⁵ Actually, Mr. Tamraz's testimony about products that he used "earlier in his career" can be read to refer to Airco consumables, as well. See footnote 129, above. Apparently, the jury so understood his testimony. The Court concludes, however, that this sole time-frame reference, unaccompanied by the sort of other testimony that Mr. Tamraz offered regarding TDY, does not provide the required quantum of substantial evidence.

Tamraz did not provide sufficient time-frame evidence to allow the jury to do more than speculate which one. Because the jury's conclusion that Mr. Tamraz used BOC's Airco product is necessarily based upon conjecture and surmise, rather than upon reasonable inference, the Court finds BOC's motion for judgment as a matter of law, notwithstanding the verdict, is well taken.

5. Additional Grounds.

In addition to the product identification arguments asserted individually by ESAB, Hobart, and TDY, discussed above, these three defendants also assert two additional, common grounds for judgment as a matter of law. First, TDY and ESAB note that Mr. Tamraz never displayed to the jury one of their actual warning labels, and insist this was required before a jury could find against them. In fact, TDY and ESAB go so far as to state that "plaintiffs never presented *any* ESAB [or TDY] warning language whatsoever to the jury."¹³⁶ This latter statement, however, is simply wrong. As discussed above, Mr. Tamraz presented evidence that the AWS promulgated standardized warning label language, and all of the defendants adopted this language. The defendants, themselves, referred during trial to "the 1967 warning," in a context that can only be understood to mean that the defendants all used the same warning language. The jury was shown several exemplars of 1967 warning labels containing the same language – specifically, AWS memoranda discussing the mandated language, as well as actual warning labels used by Lincoln, Hobart, and BOC. Thus, the jury *was* presented with substantial evidence regarding the content of ESAB's and TDY's warning labels. Where the defendants conceded they all used the same language, the fact that the jury did not see an actual ESAB or TDY label is not a valid ground for vacating the jury's verdict

¹³⁶ ESAB motion at 1 (docket no. 171) (emphasis in original); TDY motion at 2 (docket no. 173) (emphasis in original).

against them.

The second common argument asserted by ESAB, Hobart, and TDY is that Mr. Tamraz did not define precisely when he used each of their products during his career, and thus did not make clear which of their warnings were actually at issue as having been insufficient. More specifically, Mr. Tamraz testified he saw the defendants' warnings in the 1978-79 time frame.¹³⁷ This means Mr. Tamraz saw what is referred to as "the 1967 warning" and possibly also "the 1979 warning," both of which were promulgated by the AWS and used by all defendants. ESAB, Hobart, and TDY assert that, without particularized proof that Mr. Tamraz used their products *during the time they were labeled with the 1967 or 1979 warnings*, there can be no causal connection between his injuries and their failure to warn. For example, ESAB argues as follows:

As the Court is aware, ESAB warnings – like those of other manufacturers of welding consumables – changed over the course of Mr. Tamraz's career. For example, ESAB . . . began including manganese-specific information in its material safety data sheets around 1992. Moreover, the company added a "central nervous system" warning to its welding consumables in 2002 – while Mr. Tamraz was still actively welding. Without evidence establishing precisely when Mr. Tamraz allegedly used an ESAB product and precisely what product he used, the jury was powerless to identify which ESAB warning was at issue and to assess whether the content of that particular warning provided appropriate information. In addition, without knowing which ESAB warning Mr. Tamraz

¹³⁷ Mr. Tamraz testified as follows:

- Q. Let's start with the warning labels, all right? You have seen a warning label prior to today, have you not?
- A. **Yes.**
- Q. And you first saw a warning label when you began welding. Is that true?
- A. **Yes, real early.**
- Q. And that would have been back in the '78, '79 time frame?
- A. **'78, yeah.**
- Q. So there is an issue about where they were placed, they should not have been placed here in the box or the can, but wherever they were placed, you saw a warning. Correct?
- A. **Correct.**

Trial tr. at 831 (Nov. 7, 2007) (cross examination).

claimed was inadequate, the jury could not have properly determined whether that warning proximately caused his alleged injury. Thus, the jury in this case essentially determined that ESAB's warning was both inadequate and caused Mr. Tamraz physical harm without knowing what that warning was or what it said.¹³⁸

The problem with this argument is that it ignores the central premise of Mr. Tamraz's entire case – *all* of the labels that accompanied *all* of the defendants' products he used during *all* of his career were inadequate, because the labels did not warn explicitly that exposure to welding fumes could cause permanent, irreversible brain damage that becomes progressively worse over time. Mr. Tamraz and his experts insisted repeatedly at trial that this warning inadequacy has continued through today, even as some of the manufacturers, at various points in time, added manganese-specific cautions to their material safety data sheets ("MSDSs"), because these MSDS cautions were not contained in the warning labels, themselves. Thus, in fact, the jury *did* know "which ESAB warning was at issue" – all of them. Essentially, Mr. Tamraz argued that *every* ESAB welding consumable he used was defective because it contained an inadequate warning, and the jury agreed.

TDY adds the argument that Mr. Tamraz had to prove he used a TDY product that was accompanied by the 1967 warning, and not some later warning, because: (1) Mr. Tamraz testified he only saw the 1967 label; and (2) he cannot prevail on a failure-to-warn claim if he did not read the warning that accompanied the product he used. This argument fails for two reasons. First, Mr. Tamraz's testimony can be read to understand that he saw both the 1967 label and the 1979 label. Second, it is not true that Mr. Tamraz "cannot prevail on failure-to-warn claims if he did not read the warning that accompanied the product he used."¹³⁹ If – as Mr. Tamraz asserted, and as the jury could reasonably have found – part of the reason he did not read a warning is that the defendants purposely made the label hard to find and to

¹³⁸ Motion at 7-8 (docket no. 171) (citations omitted).

¹³⁹ TDY's reply at 6 (docket no. 189).

read, through its placement and size, then he is not precluded from pursuing his failure-to-warn claim.¹⁴⁰

In sum, the Court concludes that the additional common arguments asserted by ESAB, Hobart, and TDY are not persuasive bases for granting their motions for judgment notwithstanding the verdict.

III. The Effect of Granting BOC's and TDY's Motions.

Having granted BOC's post-verdict motion for judgment as a matter of law, the question arises: What effect does this ruling have on the jury's verdict? For the reasons explained below, the answer is that the verdict remains intact and unchanged.

Before trying Mr. Tamraz's case, this Court presided over the bellwether *Welding Fume* MDL trial of *Solis v. Lincoln Electric Co.*, case no. 04-CV-17363. The same five defendants that went to trial in *Tamraz* also went to trial in *Solis*. In *Solis*, the Court initially drafted a verdict form directing the jury: (1) to determine whether *any* of the defendants were liable for failure to warn; (2) if there was any liability, to determine a total amount of compensatory damages; and (3) if there were compensatory damages, to determine what percentage of the plaintiff's injuries each defendant had caused.¹⁴¹ Had the Court used this version of the verdict form (and had the jury awarded compensatory damages), the Court's final judgment would have entered a specific amount of compensatory damages against each defendant.

¹⁴⁰ Mr. Tamraz and his experts consistently criticized the defendants for placing their warnings in spots where welders would be less likely to see them, and for using typefaces that were difficult to read. *See. e.g.*, trial tr. at 492 (Nov. 5, 2007) (plaintiffs' counsel stating, during opening statement: "This is a warning label, Number 4, from Airco, one of the defendants. I will blow it up so it, you see, is easier to read, but this is part of the problem. This is real small print."); *id.* at 2262 (Nov. 16, 2007) (plaintiffs' counsel taking pains to show the jury that the warning was placed on the bottom of a 50-pound can). On these points, the Court instructed the jury: "In deciding whether directions, instructions or warnings were adequate, you should consider the[ir] location, language, and size," and "In assessing the adequacy of the warnings in this case, you are to consider the content of each warning given and also the mechanisms used to convey each such warning, such as its size and placement." Trial tr. at 2871, 2881 (Nov. 21, 2007).

¹⁴¹ *See Solis*, docket no. 194 (Draft Verdict Form at 1-3).

The *Solis* defendants, however, asked the Court to direct the jury to determine a *single* compensatory damage amount, which they would then allocate amongst themselves. Accordingly, the actual, final Verdict Form in *Solis* directed the jury simply to: (1) determine whether each defendant, individually, was liable for failure to warn; and (2) if there was any liability, determine a *total* amount of compensatory damages.¹⁴² This Verdict Form allowed for entry of no individualized, defendant-specific damage amounts in the Court's final judgment. Although the defendants never explained explicitly why they preferred this approach, the Court assumed it was because, well before the inception of the *Welding Fumes* MDL, the defendants (and other welding consumable manufacturers) had entered into a judgment-sharing agreement.¹⁴³

In any event, during its charge conference with the parties in *Tamraz*, the Court asked the defendants whether, as they had in *Solis*, they wanted the jury simply to determine a single, total compensatory damage award. The defendants confirmed they did want the Verdict Form to direct the jury

¹⁴² See *Solis*, docket no. 195 (Final Verdict Form at 1-2).

¹⁴³ See case no. 03-CV-17000, master docket no. 1467 at 8 (Nov. 1, 2005) (Special Master's Ruling regarding the discoverability of the defendants' 1987 "Master Defense Agreement" and 2004 "Amended and Restated Master Defense Agreement," both of which contained "provisions . . . regarding apportionment of settlements and judgments [that] are fairly characterized as a 'judgment sharing agreement.'"). See also *Solis* trial tr. at 3238-39 and 3243-44 (defendants stating repeatedly they did not need compensatory damages broken out by defendant and that any liability would be joint and several; and plaintiffs' counsel suggesting this was because defendants had entered into a judgment sharing agreement); *id.* at 3245-46 (defense counsel confirming the Court's understanding that "the defendants are agreeing that if the jury comes back against the defendants collectively, that the defendants will collectively make sure that any judgment gets paid").

Following the *Solis* trial, this Court presided over the bellwether *Welding Fume* MDL trial of *Goforth v. Lincoln Electric Co.*, case nos. 06-CV-17217. Again, the defendants requested that the jury determine a *total* amount of compensatory damages, regardless of how many defendants the jury found liable, with any allocation of payment to be determined by defendants amongst themselves. See *Goforth* trial tr. at 4254-63 (Nov. 27, 2006); *Goforth* Verdict Form at 5 (dkt no. 135).

to determine only a single, total amount of compensatory damages, not broken out by defendant.¹⁴⁴ After the jury entered its verdict, which awarded the Tamrazes a total of \$20.5 million in compensatory damages, the defendants orally renewed their Rule 50 motions for judgment as a matter of law. The Court responded as shown below:

THE COURT: All right. Well, your motion has been renewed. You can certainly renew it in writing if you would like. I just want to remind you that to the extent that any ruling leaves any defendant still in the case, the compensatory damage verdict remains intact because I specifically gave the defendants the opportunity to have the jury separate out the damage award, and I specifically asked whether or not there was any need to separate out any damage award. So even if it were true that I were to agree with you, say, as to TDY, it doesn't change the damage award if any defendant remains. So if, say, Lincoln remained and no one else did, there is no ability to then attack it, because to say that it should be somehow apportioned because I gave you all the ability, and I asked you several times on the record to confirm that fact, so that there would be no question if the matter were to go up on appeal. So I just want to make that clear.¹⁴⁵

¹⁴⁴ See generally trial tr. at 2672-76 (Nov. 20, 2007) (colloquy between the Court and defense counsel on this point). The colloquy ended as follows:

THE COURT: * * * I want to make sure the record is clear, that this is the way you want the damages on the verdict form because really the defendants would have the right to ask for a much more detailed breakout, and given as I said that it was [defense counsel] last time that said you didn't want it, I don't want any issue in the Court of Appeals if you ever go there, that I should have broken that out and somehow you can't tell who the jury was punishing on the damages numbers. Do you understand?

MR. HARBURG: **Yes, Your Honor, I do, and for purposes of the damages – let me flip to it, to make sure I'm not missing something. Yes. We do agree that you can, that the jury can simply put in one number.**

THE COURT: For compensatory.

MR. HARBURG: **For compensatory. Just put in a bottom line number. The liability is broken out, and then if there is any allocation among the defendants, they will deal with that.**

Id. at 2676.

¹⁴⁵ Trial tr. at 2921-22 (Dec. 5, 2007).

Defense counsel replied: "That's confirmed, Your Honor."¹⁴⁶

In sum, the effect of granting BOC's motion is essentially known only to the defendants, as they agreed that any allocation of an award of compensatory damages was a purely internal matter. That portion of the Court's judgment awarding a total of \$20.5 million in compensatory damages to the Tamrazes, however, remains intact and unchanged.

IT IS SO ORDERED.

/s/ Kathleen M. O'Malley
KATHLEEN McDONALD O'MALLEY
UNITED STATES DISTRICT JUDGE

DATED: July 18, 2008

¹⁴⁶ *Id.* at 2922. As revealed by the colloquy set out below, the defendants reaffirmed and adopted this approach again in *Jowers v. BOC Group, Inc.*, case no. 1:08-CV-36-KMO-JMR (S.D. Miss), which was the next MDL Bellwether trial after the *Tamraz* trial:

THE COURT: I don't think they are necessary to the verdict form. I think the simpler the verdict form, the better. All those are elements that I have charged. The only thing I want to confirm about the verdict form, and this is important, because as I understand, [the Special Master] confirmed with the defendants, because the defendants did not propose in their verdict form that the dollar figures be, for anything other than punitive damages be apportioned out. We've gone through this before. It is important to make sure we're on the same page. The defendants have always requested that I not separately apportion damages for compensatories, and I want to make sure that's what the defendants want again this time.

MR. ULMER: **It is, Your Honor.**

THE COURT: Okay. All right. Great. On that issue, because it is late, I'm not going to go into it, but I want to incorporate all the discussions I have had with the defendants about the implications of that decision from the prior cases. And Mr. Harburg is shaking his head yes. Okay. See you tomorrow.

Jowers trial tr. at 3124-25 (Mar. 2, 2008).