

ספירימ

סיוע לציבור, פסקי הלכה, רכיבים, מארעות ומדע
Updates for the cRc Kashrus Professional

סיוע לציבור
COMMUNITY

Russian Samovar

As a rule one is not permitted to put food onto the fire (or the *blech*) on *Shabbos* even if the food is fully cooked. This prohibition is called *chazarah* and is based on two concerns: 1) Someone watching the process might think the food is being cooked, and 2) A person might adjust the flame to speed up the warming process. Details of this halacha and some common methods of warming food on *Shabbos* were discussed in *Sappirim* 6 and 8.

One of the cases where one is allowed to warm food on *Shabbos* is if the pot of fully cooked food is put on top of another pot which is sitting on the fire. It is so unusual to warm food up in this manner that the prohibition of *chazarah* does not apply, and one may warm food even if there is no *blech* under the (bottom) pot. It is however noteworthy that although warming in this manner is not *chazarah*, the food must be fully cooked and all liquids must still be warm, otherwise one is violating the *melacha* of *bishul* in order to warm up the food.¹

So where does the Russian samovar come in? A typical urn is basically a big pot of water with a built-in electric coil which keeps the water in the urn at a given temperature. A Russian samovar is somewhat more sophisticated in that its lid is perforated to allow steam vapors to escape, and the samovar comes with a small tea kettle which fits over this lid. The tea kettle is filled with tea-essence (i.e. concentrated tea) and is heated by means of the vapors escaping through the lid. To prepare a cup of tea, one fills a cup with water from the samovar and then pours in some hot tea-essence from the kettle. The picture at right shows a modern version of a Russian Samovar.²



¹ See more on this in a coming footnote.

² The picture is taken from <http://www.ekaterinas.com/Categories.bok?category=SAMOVAR>, which sells these types of samovars.

May one return the tea kettle to the top of the Russian samovar on *Shabbos*? One could argue that although it is not common to cook/heat food in a pot that is on top of another pot, in this case the samovar was especially constructed for exactly that purpose; therefore, we should view it as being "common". In that case, it would be forbidden to put the tea-kettle on top of the samovar.³ Nonetheless, Rav Schwartz ruled that heating and cooking food in this manner is overall so uncommon that even in this case there is no prohibition of *chazarah*.⁴ As such, if the tea-essence was prepared before *Shabbos* and the tea essence is still warm, one may place the tea kettle on top of the samovar to keep it warm. [Those of *Sephardic* descent may only put the tea kettle onto the samovar if the tea essence is hotter than *yad soledes bo* (approximately 160° F)].⁵

עס עס

החלכה
המגורית

Hachanah in a Certified Pesach Hotel

People prefer to begin their meals or *Sedorim* as soon as *Ma'ariv* ends on the eve of *Shabbos* or *Yom Tov*. The same is true in a hotel which is certified for *Pesach* and naturally, the caterer will do anything in his power to keep his customers happy. At the same time, it is the responsibility of the *Mashgichim* to enforce the halachos which forbid *hachanah* from one day of *Yom Tov* or *Shabbos* to the next.⁶ There are a number of methods of dealing with this issue including waiting; *marbeh b'shiurim*; incomplete

³ A similar position is espoused by Rabbi Shimon Eider, *Halachos of Shabbos* Volume IV Chapter 14 footnote 562.

⁴ This ruling is in line with Rav Schwartz's position regarding the *kedairah blech* as discussed in *Sappirim* 8.

⁵ The primary question discussed in the text was *chazarah* which is a Rabbinic prohibition. However, there is also a potentially more serious question of *bishul*, the Torah prohibition to cook food on *Shabbos*. As relates to *bishul*, the rule is that (a) once a solid food is fully cooked, it is impossible to "recook" it, and one can't violate *bishul* by reheating the food (*Shulchan Aruch* 318:15), but (b) a liquid that cools down has become "uncooked" and if one reheats it they violate *bishul*. Within "b", there's a disagreement as to how cool the liquid has to get before it's considered "uncooked": *Sephardim* follow *Shulchan Aruch's* (318:4 as per *Mishnah Berurah* 318:24) ruling that if it cools below a temperature known as *yad soledes bo* (about 160° F, for this halacha) it's considered "uncooked", while *Ashkenazim* follow *Rema's* (318:15) lenient ruling that once the liquid was once cooked/heated above *yad soledes bo*, it remains "cooked" as long as it is noticeably warm. This is quite relevant to this situation where the tea essence will likely remain warm for quite some time but might cool below *yad soledes bo* relatively quickly. *Sephardim* would have to be careful to return the tea kettle to the top of the samovar before it cooled below 160° F while *Ashkenazim* would be able to leave the tea kettle off the samovar for longer.

The advantages of preparing tea from tea-essence (even if it isn't hot) is discussed in *Mishnah Berurah* 318:39.

⁶ See *Shulchan Aruch* 503.



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hachanah; and non-Jews performing *hachanah*. Each of these methods is discussed below.

Waiting

Once sufficient time has passed after *shekiah*, it becomes the next day, and there is no issue of *hachanah*. The general cRc policy is that no food preparation may be done until 50 minutes after *shekiah* on *Motzai Shabbos*,⁷ but the situation in a certified *Pesach* hotel is somewhat different. On the one hand we must factor in the potential for **זלזול יום טוב** for such preparations to be done in the presence of a hotel full of Jewish guests, but on the other hand we must also consider that there is a whole *tzibbur* waiting to eat. [This is different than the general cRc policy, which merely dictates that the even must begin later]. In cases where the hotel locks the ballroom during setup (as is common), Rav Schwartz does not seem concerned with the first factor because there is no way any guests would be aware of the preparations being performed.

He does however, consider the latter factor to be significant, and ruled that as relates to *hachanah* for a second day of *Yom Tov* (or *Shabbos*) the non-Jews may consider the first day to end at the *zeman* given by *Responsa Bnei Zion*.⁸ *Bnei Zion* (II:16) rules that *bein hashmashos* ends when the sun is 6 degrees below the horizon;⁹ although we do not accept his opinion regarding Jews performing *melacha*, in our case we may allow non-Jews to perform *hachanah* once that time passes.

⁷ At a one-time event in a hotel, the cRc allows non-food preparation to take place at any time – even on *Shabbos*. Although Rabbi Eisenbach notes that even at a one-time event the setup is done under certification to assure that only kosher flatware and dishes are used, the decision as to when to setup is completely in the hotel's hands (*adatah d'nafshey*, as will be explained below), and therefore they may setup on *Shabbos*. On the other hand, at a hotel certified for the entire *Yom Tov*, the needs of the (Jewish) guests at the preceding and coming meals are major factors in the decision as to when setup should occur, and therefore the setup must be within the guidelines of *hachanah*.

⁸ *Responsa B'nei Zion*, by Rabbi Dovid Spira, contains two volumes, the first of which was printed while the author lived in *Eretz Yisroel*, and the second was printed when he was temporarily living in New York. The *teshuvah* on this topic (II:16) spans close to 60 pages and includes tables of crucial *zmanim* for the entire year for the equator, and latitudes of 20, 32, 41, 52, 60, and 75 degrees north. [The inside cover page says that the second volume was printed in 5716/1956 but the *teshuvah* on this topic carries the date of 5 Av 5717].

⁹ *B'nei Zion's* opinion is based on a number of assumptions (a) the halacha follows *Gr"a* and others that the $\frac{3}{4}$ mil of *bein hashmashos* is measured from sunset, (b) the $\frac{3}{4}$ mil *shiur* is a measure of darkness on the day of the equinox at the equator, (c) the time of *bein hashmashos* changes based on the day of the year and one's latitude, and (d) the aforementioned level of darkness occurs when the sun is about 3 $\frac{3}{4}$ degrees below the horizon, but one should be *machmir* and assume it happens when the sun is 6 degrees below the horizon. The numerous halachic and mathematical issues with this position are beyond the scope of this document.

Accordingly, for *Pesach* 5768/2008, the time when non-Jews may perform all forms of *hachanah* at the two hotels certified for *Pesach* by the cRc are as follows:

Lake Geneva, WI¹⁰

	<u>Apr. 19</u>	<u>Apr. 20</u>	<u>Apr. 26</u>
Sunset	7:41	7:42	7:49
Hachanah begins	8:10	8:12	8:19

Whistler, BC¹¹

	<u>Apr. 19</u>	<u>Apr. 20</u>	<u>Apr. 26</u>
Sunset	8:13	8:15	8:24
Hachanah begins	8:49	8:51	9:01

With these times in mind (and after considering the other leniencies noted below), the caterer may want to speak to the person who oversees the *davening*, to ask him to arrange a speech, a later start, or slower *davening* so that the hotel staff will, in fact, have the ballroom ready when *davening* ends.

What if some or all of the hotel guests accept the last day of *Yom Tov* "early" (i.e. after *plag hamincha*)? Can preparations be done before *plag* for the second day? What about between *plag* and *shekiah*? These questions are moot for this year,¹² and will IY" H be dealt with in the future.

Marbeh B'shiurim

Someone who is cooking (or doing other preparations) on *Yom Tov* for that same day is permitted to have extra food in the pot that will be used for the next day of *Yom Tov* (or *Shabbos*) if they meet the following conditions:¹³

- No extra actions may be done for the second day of *Yom Tov*.

For example, on *Yom Tov* afternoon, a pan holding 200 stuffed cabbages may be put into the oven even though only 50 of the stuffed cabbages will be eaten that day at the early supper for children or seniors, because the same action will get all 200 stuffed cabbages

¹⁰ The latitude and longitude for Lake Geneva, Wisconsin is approximately 42° 36' N and 88° 24' W. The altitude is approximately 900 feet, and the negligible difference which that makes in the *zmanim* was ignored.

¹¹ The latitude and longitude for Whistler, British Columbia is approximately 50° 6' N and 122° 57' W. The altitude is approximately 2,200 feet, and one minute was added to the time when *hachanah* may begin to (over)compensate for the fact that the calculations of sunset assume the location is at sea level.

¹² This year, the last night of *Yom Tov* is on *Motzai Shabbos* such that all cooking for the evening *seudah* will have to be done after *havdalah*, which makes it unlikely that anyone will accept the last day of *Yom Tov* "early" as they would basically have nothing to eat. Of course, one may not accept *Yom Tov* early on the *Seder* nights since the *Seder* must begin after nightfall (*Shulchan Aruch* 472:1 and *Mishnah Berurah* 472:4), and there is no issue of *hachanah* if people accept *Shevii shel Pesach* early.

¹³ *Shulchan Aruch & Rema* 503:1-2.

into the oven. If however, there are 2 pans each holding 100 stuffed cabbages, only one pan may be put into the oven; the second one cannot as that would entail doing an extra action specifically for the second day. Similarly, one would not be permitted to fry extra breaded *schnitzel* or wrap more stuffed cabbages than might be needed for the first day of *Yom Tov*, because in these cases each piece of *schnitzel* or cabbage is prepared separately and requires extra effort.

- The people involved in these preparations should not verbalize their intention of using some of the food for the second day of *Yom Tov*.

Incomplete Hachanah

One is required to eat in the *Succah* on *Shemini Atzeres*. On the following night it is still *Yom Tov* (*Simchas Torah*), but one eats in the house. *Rema* 667:1 rules that on *Shemini Atzeres* afternoon one may not move the tables and benches from the *Succah* and set them up in the house, as that would be *hachanah* from one day of *Yom Tov* to the next.

*Chayei Adam*¹⁴ suggests that this halacha may be limited to cases where one completes the *hachanah* by setting the tables up in the house, but one would be permitted to do the incomplete act of merely moving the tables into the house. *Chayei Adam* cites a number of proofs to this position but severely limits it to cases in which it would be very difficult or impossible to move the tables once the second day of *Yom Tov* begins. He further requires that the preparations be done early enough in the afternoon that it is not obvious that this *hachanah* is being done for the next day. [*Chayei Adam* also rules that one should not rely on this leniency when preparing on *Shabbos* or *Yom Tov* for a weekday]. This leniency, including the aforementioned limitations, is cited in *Mishnah Berurah* 667:5 as being permitted בשעת הדחק.

Theoretically, this leniency would allow the hotel staff to put out the tables, chairs, tablecloths, plates and flatware on the first day of *Yom Tov* in advance of the second day of *Yom Tov* as long as they did not actually complete the *hachanah* by setting the tables. However, we must recall that *Chayei Adam* and *Mishnah Berurah* only permitted this form of (incomplete) *hachanah* in cases of שעת הדחק or where it would be very difficult to do the steps after nightfall. This preparation does not seem to meet those criteria because if the steps were not taken they would

only cause the *Yom Tov* meals to be delayed by a few minutes, which hardly seems to qualify as a שעת הדחק.

Thus, it would appear that *Chayei Adam's* leniency has limited application in a hotel setting, but there may still be situations where in fact the *Rav HaMachshir* would feel it is appropriate.

Non-Jews performing hachanah

A Jew is forbidden from preparing from one day of *Yom Tov* to the next, whether the preparation involves *melacha* or just *tircha* (effort).¹⁵ As with all other prohibitions of *Yom Tov*, whatever a Jew may not do he may not ask a non-Jew to do for him. Therefore, our initial assumption would be that the same applies to all aspects of the prohibition of *hachanah*. However *Pri Megadim*¹⁶ suggests that although one may not tell a non-Jew to do *melacha* on one day of *Yom Tov* for the next day, it may be that it is permitted to tell him to perform *tircha* for the next day.

Some *Acharonim*¹⁷ suggest that although *Pri Megadim* does not offer a definitive ruling on this matter (or an explanation as to why it might be true), he truly holds that it is permitted and was merely writing his ruling in his typically humble manner. However, one could challenge this stand because in two other locations *Pri Megadim*¹⁸ details the logic behind possibly being lenient on this matter and offers a proof that it may not be correct. His repeated discussion of the matter without offering a firm lenient decision supports the assumption that *Pri Megadim* is truly unsure of how to rule on the matter.

Upon further investigation it turns out that *Taz*¹⁹ and *Magen Avraham*,²⁰ both of whom are cited by *Mishnah Berurah*, effectively hold that the

¹⁵ See *Shulchan Aruch* 503:1 and *Mishnah Berurah* 503:1. The *Poskim* refer to preparations which do not involve *melacha* as being טירחא טלא לטורח (work or effort for no reason), and we will use that terminology for this discussion.

¹⁶ *Pri Megadim*, Introduction to A.A. 503.

¹⁷ *Maharsham* (*Da'as Torah* 444:1 ד"ה וי"ט), and in his additions to *Orchos Chaim* 444:3). See also *Teshuvos V'Hanhagos* 1:223, who assumes (without citing *Pri Megadim* or any other sources) that *amirah l'akum* does not apply to *tircha*.

¹⁸ *Pri Megadim* (M.Z.) 500:4 says that a source suggesting that *amirah l'akum* might only apply to *melachos* is *SMa"G* cited at the end of *Beis Yosef* 244, who says that the prohibition of *amirah l'akum* is based on *Mechilta's* interpretation of the *posuk* (*Shemos* 12:16) כִּי מְלָאכָה לֹא יַעֲשֶׂה בָהֶם, which implies that *melacha* may not be done for a Jew by anyone. Accordingly, *amirah l'akum* might only apply to *melacha* and not to unnecessary *tircha* on *Yom Tov*. On the other hand, in *Pri Megadim* (A.A.) 500:13 he rules that *amirah l'akum* for a *tircha* is not permitted (except in cases of *hefsed merubah* where any *shvus d'shvus* would be permitted, as will be discussed below) and suggests a possible proof to that from *Rema* 322:6. (He also notes that this would be against the aforementioned suggestion that one may be lenient).

¹⁹ *Taz* 313:10, cited in *Mishnah Berurah* 313:56; *Pri Megadim* on this *Taz* does not discuss the issue dealt with in the text.

²⁰ *Magen Avraham* 510:13, cited in *Mishnah Berurah* 510:23 & 319:62. *Pri Megadim* on *Magen Avraham* references *Magen Avraham* 307:7 (who discusses the circumstances when one is allowed to ask a non-Jew to perform a forbidden act), which gives some indication that *Pri Megadim* agrees with *Magen Avraham's* assumption that *amirah l'akum* for *tircha* is no different than *amirah l'akum* for *melacha*.

¹⁴ *Chayei Adam* 153:6, based on *Magen Avraham* 667:3 and other sources.

prohibition of *amirah l'akum* even applies to cases when the non-Jew is merely performing *tircha*. These *Poskim* do not specifically raise the issue discussed above, but both discuss cases of *tircha* on *Shabbos* or *Yom Tov* and assume that a non-Jew may not perform such acts for a Jew.²¹ In light of their assumption to this effect, and the fact that even *Pri Megadim* appears unsure that there is any difference between *amirah l'akum* on *tircha* or *melacha*, it seems prudent not to rely on this lenient rationale. As such, a Jew may not have a non-Jew prepare something on one day of *Yom Tov* that the Jew will use on the next day of *Yom Tov*, even if that preparation involves mere *tircha* and no formal *melacha*.

Nonetheless, it is well known that there are situations where *amirah l'akum* does not apply, and two of the cases where one can be lenient about *amirah l'akum* are especially relevant to a hotel on *Yom Tov*, as follows:

- A Jew may not ask a non-Jew to do anything for him which the Jew is not allowed to do himself, but a non-Jew may perform *melacha* (or *tircha*) *ada'tah d'nafshey* (for his own personal benefit) even though a Jew has a tangential benefit from the *melacha*. Therefore, the Jewish caterer cannot tell the non-Jewish hotel staff to have the table set before 7 P.M. for the meal on the second night of *Yom Tov*, because he is telling them to prepare on one day of *Yom Tov* for the next. If however, they are told to have the tables set by 10 P.M. and they find it more convenient to set up when they have some free time in the afternoon rather than be rushed after dark, they may do so, as they are doing that unnecessary *tircha* for their own benefit rather than for the Jews.

*Shulchan Aruch*²² rules that a non-Jew may not do *melacha adatah d'nafshey on the Jew's property*, because people who see him doing the *melacha* will think the Jew specifically told him to do it on *Shabbos*. Rav Schwartz is of the opinion that setting up tables behind locked ballroom doors or doing other preparatory work in the recesses of a hotel kitchen is not included in this halacha, because the hotel does not belong to a Jew and none of the guests will see or know about the *melacha* which the non-Jews are doing.

- The prohibition of preparing on one day of *Yom Tov* for the next day is Rabbinic in nature, and

in most cases one may ask a non-Jew to violate a Rabbinic prohibition on *Shabbos* or *Yom Tov* if there is some great need, *hefsed merubah* (large loss), in order to help a sick person, or to help people perform a *mitzvah* (*Shulchan Aruch* 307:5). Therefore, if the caterer realizes on the afternoon of the first day of *Yom Tov* that the food for the evening meal is frozen, he may ask a non-Jew to take it out of the freezer to defrost, because if they do not defrost it until after dark hundreds of people will have to delay their *Yom Tov* meal for an extended amount of time.²³

In this context it is noteworthy that *Magen Avraham*²⁴ cautions that one must be careful in applying the aforementioned leniency as it cannot be applied to all situations. This is in addition to the potential for abuse in a hotel situation, where people are wont to rationalize all *amirah l'akum* as being done *l'tzorech mitzvah*.

Summary

In order to prepare for the evening meal of the second night of *Yom Tov* in a hotel:

- Non-Jews may set tables during their free time on the afternoon of the first day if doing so is convenient for them, but not to satisfy their Jewish bosses or hotel guests. They may also take food out of the freezer so it can thaw before evening if it was mistakenly not defrosted before *Yom Tov*. These leniencies typically do not apply to cooking or warming food.
- The hotel staff may cook or warm an entire pan of food even if only part of it will be eaten on the first day of *Yom Tov* and the rest will be used at the evening meal. However, extra effort may not be done for the evening meal, and extra pans of food may not be heated.
- This year, at the cRc *Pesach*-certified hotels in Lake Geneva, Wisconsin or Whistler, British Columbia, non-Jews may make any preparations for the evening meal beginning 31 or 37 minutes after sunset.



INGREDIENTS **Polyethylene Glycol**

Sappirim 9 explained that polysorbates are made from sorbitan esters and ethylene oxide. Of those ingredients, sorbitan esters are kosher sensitive and ethylene oxide polymers are produced using a process known as ethoxylation. The current

²¹ In each of their rulings, they note that a non-Jew may not perform the act under discussion unless the situation qualifies as one where *amirah l'akum* is generally permitted (and some of those exceptions are discussed in the coming text).

²² *Shulchan Aruch* 252:2 as explained by *Mishnah Berurah* 252:17.

²³ It would appear that this case would also qualify as an incomplete *hachanah* discussed in the previous text.

²⁴ *Magen Avraham* 307:7 cited in *Mishnah Berurah* 307:21.

discussion continues with a look at how this might affect another ingredient, polyethylene glycol.

Ethylene oxide is highly flammable. Therefore many plants choose to have all ethoxylation done in specially controlled reactors that are suited for dangerous materials. As such, one might consider whether polyethylene glycol, abbreviated as PEG, should be considered a Group 1. The ingredients used in PEG are innocuous, but should we be concerned that the PEG is produced on the same equipment as polysorbates, since both require specialized ethoxylation equipment?

Although it is theoretically possible for PEG to be made on the same equipment as polysorbates, we must bear in mind that in order for the PEG to be non-kosher three things must go “wrong”, (a) the PEG was made on equipment used for polysorbates, (b) the equipment was *ben yomo*, and (c) the polysorbates themselves were non-kosher. Of these three factors, the *kashrus* experts we spoke with could not think of a factory where the first was true (i.e. PEG was made on polysorbate equipment) and Rabbi Dr. Moshe Rosenfeld, of the London Beis Din, gave a technical explanation for why, in fact, it is highly unlikely to occur.^{25 26} For these reasons, polyethylene glycol is a Group 1 ingredient.

Iron-fortified Salt

To assist people in getting all the nutrients they need, government and industry “fortify” foods with vitamins and minerals which some people might otherwise not get in their regular diets. Some common examples of this fortification are the addition of vitamins A and D to milk; vitamin B and iron to bread; and thiamin, niacin and iron to rice. However, there are many people in third-world countries who do not have access to any of the aforementioned foods, so scientists are always looking for ways to enrich ingredients which will reach just about everyone.

One of those widely available foods is salt, which has been enriched with iodine for many years to help prevent thyroid disease. Building on this success, scientists have attempted to further enrich salt with iron but found that adding iron to the salt caused the iodine to disappear! Indirect methods of adding the iron resulted in a product that was not esthetically pleasing.

²⁵ Rabbi Dr. Rosenfeld wrote that “PEGs are made from Ethylene Oxide polymerization (involving also water), and due to the high volume and techniques involved, will only be made on equipment dedicated for PEGs. Ethoxylated Polysorbates, differ in as much that they are always made under rigorous anhydrous conditions...and...in my experience the ethoxylation of such esters is never done on sites making PEGs.”

²⁶ An additional factor is that it is a reasonable presumption that PEG is considered *nifsal mei'achilah* (its use as a laxative notwithstanding) such that non-kosher *b'lios* are unimportant.

A recent newspaper article²⁷ described how Dr. Levente Diosady, working with the Micronutrient Initiative, spent 10 years investigating this issue and finally discovered a means to overcome these challenges. Dr. Diosady discovered that if he encapsulated the iron in vegetable fat (and dyed it white) it would stick to the salt without affecting the iodine or the appearance of the salt.

Although vegetable oil is a kosher-sensitive ingredient, this discovery will likely not affect most kosher consumers. It seems that the specialized process described above increases the price of salt by as much as 40%, such that it will not likely be used in all salt. Rather, we can expect it to be used in countries where iron deficiencies are common and that any salt fortified in this manner will be clearly labeled as such.



EXPERIENCE

Temperature Recorders as a Kashrus Tool

There are many times when technology helps us improve our *kashrus* supervision, and we would like to present the following examples where relatively inexpensive temperature recorders have been used for exactly that purpose. To the best of our knowledge, Rabbi Elisha Rubin (Kof-K) originated the idea to use the first suggestion given below,²⁸ and Rabbi Yaakov Blugrond (formerly of the OU) is the innovator of the last one.

Aino ben yomo

Every Monday morning a specific company *kashers* a few kettles before starting its kosher production for the week and claims that it never has a production run on *Shabbos* and Sunday. The *Mashgiach* for this company is not 100% convinced that this claim is always true and wants to be sure that the equipment is in fact *aino ben yomo* when he comes to *kasher*. We have found the LogTag Trix-8 data logger to be an inexpensive solution to this question.²⁹

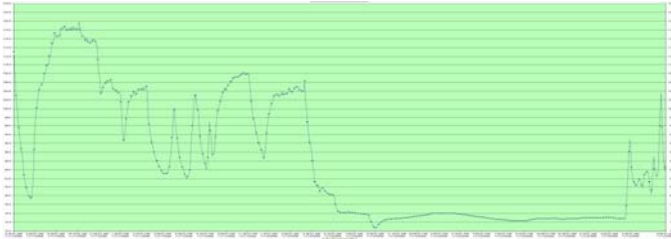
The recording device is about the size of a credit card and just about ½ an inch thick. The data

²⁷ *The Globe and Mail*, February 12, 2008. It is noteworthy that earlier descriptions of the discovery do not include mention of the use of vegetable oil. See for example http://www.idrc.ca/en/ev-26940-201-1-DO_TOPIC.html (1998) and http://findarticles.com/p/articles/mi_m1200/is_18_166/ai_n7072709/print (2004). It is not clear if the current description is a revision of the original process.

²⁸ See *Daf HaKashrus* Volume XII Issue #1.

²⁹ For more information on this data logger, go to <http://www.microdaq.com/logtag/trix-8.php>. Undoubtedly, there are other companies that make similar products, which may be better suited to a particular need.

logger has a hole in one corner and can be attached to the equipment that will be monitored either with a wire seal going through the hole, or with tape as in the picture at right. When the *Mashgiach* comes to the plant, he can easily connect the data-logger to his laptop and instantly see a chart of the last 8,000 data recordings,³⁰ as shown below. The drop in temperature is quite clear, and on the computer screen the *Mashgiach* would be able to read the numbers even more clearly. In this case, the chart shows that the equipment was in fact *aino ben yomo* as it was not used from about 3:00 A.M. on the 12th until about 5:00 A.M. on the 13th, when the *kashering* began.



Dedicated equipment

Another company uses a mixer for both kosher and non-kosher, with a thorough cleaning between products, and would now like to begin using heat to slowly dry a hot kosher product on that same equipment. The *Mashgiach* will check paperwork and make unannounced visits to make sure that the equipment is never used for hot non-kosher products, but he would like extra assurance that no hot productions happen without his knowledge.

To give the *Mashgiach* the desired comfort level, this company installed a wall-mounted Omega recorder (shown below), which continuously records the temperature on the steam-inlet pipe. The data (a) can be viewed on the display panel, (b) can be downloaded to any computer in the plant and emailed to the *Mashgiach* as an Excel file, and (c) is stored on a removable memory card which can be connected to the *Mashgiach's* laptop.



Drain Condensate

When steam heats a kettle filled with non-kosher product, the condensate formed is considered non-kosher. If that condensate is returned to the plant boiler, it will be reused to heat other products which will compromise their kosher status. One way to avoid this problem is for the company to not recover condensate whenever they use the kettle for a non-kosher product. The question is how the *Mashgiach* can verify that this was done?

The answer is brilliantly simple. When condensate drains out of the kettle it is boiling hot, so a temperature recorder can be placed on the drain pipe to record whether the required draining actually happened. In other words, if the company cooked non-kosher food from 8:00 A.M. to 2:00 P.M., the temperature recorder should show >200° F condensate passing through the pipe for the entire time; if it does, that would confirm that the company is following the kosher protocol and the other products in the plant remain kosher.



³⁰ The *Mashgiach* can program how often the data should be recorded depending on whether he needs many weeks of records or more specific information. In the former case, he might set his recordings 10 minutes apart so that he would get about 8 weeks of data, and in the latter case he might set his recording to be every 30 seconds which would give him about 2.5 days of very detailed data.