

THE Daf HaKASHRUS



A MONTHLY NEWSLETTER FOR THE OU RABBINIC FIELD REPRESENTATIVE

PARASITES IN FISH

Rabbi Moshe Vaie, Shlita, Renowned Toyloim Expert Addresses Major Kashrus Organizations at OU Headquarters

RABBI DOVID BISTRICER

RC, Bake, Fish, Israel, Salad Dressings, Sauces, Vegetables

FOR THE PAST several months there has been much public discussion about the presence of parasites found in the flesh of fish, with the OU's position consistently lenient. On June 1, the OU hosted Rabbi Moshe Vaie, the world renowned expert in the field of hilchos tola'im and author of *Bedikas Hamazon Ke'halacha*. Rabbi Vaie, along with two other speakers, gave a thorough presentation about the current issue and its impact on the kosher fish industry. Also in attendance were kashrus professionals and representatives from the major kashrus agencies in the United States and Canada.

The current issue centers on the scientifically accepted lifecycle of the anisakis worm, a common parasite that is found in the flesh of fish. The anisakis is assumed in its immature form to originate in the ocean and undergoes a series of developmental stages until it finds its way into a fish, where it migrates from the stomach to the flesh. Although Chazal and the Shulchan Aruch unequivocally permit worms found and grown in the flesh of fish, halachically those found in the stomachs are considered forbidden since they are assumed to have been directly swallowed by the fish from the ocean. The scientifically accepted lifecycle of the anisakis seem-



Partial view of participants from major kashrus organizations



Rabbi Moshe Vaie

ingly describes a *sheretz* that is halachically forbidden, whereas Chazal and the Shulchan Aruch permit worms found in the fish's flesh without qualification.

Rabbi Vaie began by discussing and presenting a slideshow about the prevalence of anisakis and similar parasites throughout the fish industry.

Rabbi Vaie emphasized the following points:

1. There are thousands of species of parasites that may be found in the flesh of fish that are commonly consumed.
2. The presence of parasites in fish flesh is highly prevalent and in large volumes. It is therefore not possible to properly clean fish from these parasites, as only a modest percentage will be removed.

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ALCOHOL BEVERAGE ALERT

THE AKO (Association of Kashrus Organizations) Executive Committee has reason to believe that there are large liquor companies in the United States which may be owned in whole or part by Jews. We are concerned that such companies may not have arranged for the sale of their chametz (mechiras chametz) during Pesach. These companies primarily manufacture bourbon, cordials, and American whiskey, and also deal in a small amount of Scotch and vodka.

Chametz-containing liquors owned, produced and/or aged by Jewish-owned companies over Pesach are forbidden as chametz she'avar alav haPesach.

Since many liquor products are aged for many years before they

are sold to the public, it cannot be assumed that these beverages are acceptable for kosher use even if they are purchased a long time before or after Pesach.

Accordingly, we recommend that Kashrus Agencies and consumers change their policies and only consume those alcoholic beverages which [are free of standard kosher concerns and] are known to (a) be produced by a non-Jewish company or a Jewish-owned company which arranged for the sale of their chametz, (b) not contain any chametz, including not having chametz secondary grains or malted barley (bourbon and cordials are examples of items that may have these forbidden items), and/or (c) were not aged over Pesach (e.g. vodka).

For a list of some brands which we believe to be subject to the above concern please visit www.akokosher.org.

KASHERING OF HTST/PLATE PASTEURIZERS

RABBI AVROHOM GORDIMER

RC, Dairy

MANY of our plants feature kashering of HTST plate pasteurization systems. It is particularly common for this kashering to occur via automated CIP, whereby the CIP system is programmed to operate at kashering temperatures.

Unless such a CIP system is set up very meticulously, there is a significant likelihood that it will not kasher. Please allow me to explain.

The typical automated CIP kashering system includes a caustic wash at 190 F or above to achieve *pegimah*, followed by a fresh water flush at 200 or so (high of 212 and low of 190), which is the actual *hag'alab*. (If there will be 24 hours of down-time before the fresh water *hag'alab*, there is no need for the caustic to provide *pegimah*.)

There are some areas of an HTST system which are not necessarily included in every CIP as set up by the plant, and which often will not be included in a hot fresh water flush. These areas – **the divert system, including the balance tank, as well as the cooling section and leak detect valves** – are not intended for full, normative hot product flow, and they will often be cleaned at lower temperatures and thus not kashered properly, unless we specifically program for them to be kashered as required.

It is thus important to communicate and verify with our plants that have CIP kashering of HTST systems, that the divert and leak detection valves be opened periodically during each phase of kashering, and to specify and monitor that the cooling section likewise be subject to both phases of kashering. This will assure that the entirety of the system is kashered as per the stages and temperatures that we require.

Rabbi Stone, who provided most of the following information and has an extremely impressive mastery of this topic, cautions that **RCs and RFRs should only address this issue with companies once the RCs and RFRs are sufficiently proficient in the matter, as major *michshol* can otherwise result.** RCs and RFRs who need guidance should always consult with those who have the requisite proficiency before making changes in CIP/kashering systems.

The only effective method for educating about this important issue is on-site training; this memo is merely an overview.

That having been said, let's turn our attention to how HTST systems work and the kashering that they require.

PROCESSING

Although during normal production, we encounter the balance tank as operating at cold temperatures, the balance tank actually is a hot-use vessel, for when plants start production, they recycle hot product through the system, including the balance tank, until the system's heat is sufficient to make finished product and send it to the filler for packaging.

Typically, **during start-up**, product will leave the balance tank, become pre-heated in the raw regen area, then be pasteurized and held hot in the holding loop, after which it begins to be cooled in the pasteurized regen area. Product then proceeds through the cooler, which may be turned off at this point.

Product is then diverted back to the balance tank, often quite hot.

During regular production after start-up, product is cooled after exiting the holding loop, and the balance tank does not get hot – unless hot product which needs to be reheated is diverted there.

In sum, the balance tank is initially exposed to hot product and needs to be kashered.

CIP

During CIP, the balance tank

will be subject to some hot caustic water, but likely not enough to kasher or perhaps even be poga'im it. This is because the CIP features very brief pulsation of divert valves, in which the valves which can divert product that has been heated (and not yet cooled) back to the balance tank are opened; however, the valves are opened for very short intervals (usually 30 seconds), likely not enough to overflow the balance tank with *roschin* (boiling water) or anything close.

The cooling sections of the system are off during CIP, and caustic water circulates through the whole system, including the balance tank. However, this water is often not *roschin* when it gets to the balance tank, as by the time it exits the heating sections and travels through the pasteurized regen and cooler, this water is commonly below *roschin* temperatures, only after which it then reaches the balance tank.

KASHERING

When kashering, it is thus necessary to assure that *roschin* water will indeed enter (and overflow, or at least maximally fill) the balance tank. How can this be achieved?

The answer is by opening the divert valves during part of the kashering for intervals of several minutes, so that *roschin* water, freshly heated to the maximum by the heating unit, will go directly to the balance tank (rather than arriving there after a full loop through the pasteurized regen and cooling areas, where it loses temperature even if these areas are not cold). **However, the valves cannot be open for all of the kashering, as otherwise the water will not get through the rest of the system, leaving it unkashered!**

Again, the cooling section must be turned off for kashering.

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BEING POGEM WATER

RABBI ELI GERSTEN

RC Recorder of OU Psak and Policy

A COMMON way to heat products is through the use of a water loop. Steam from a boiler is used to heat water which then cycles through a loop and in turn heats products. This same water loop can be used to heat multiple products either simultaneously or one after the next. The water which heats the non-kosher products will become non-kosher based on the halacha of “*tipas chalav shenafal al hakedairah mibachutz*” (Y.D. 92:5). Even a dedicated kosher kettle will become non-kosher if it is heated with “tainted” water.

There are basically two approaches to resolving this problem. One is to drain the water loop and the other is to be pogem the water.

If one plans on draining the water and kashering the kettles, the draining should be done 24 hours before the kashering. Recently we had a situation where although the Mashgiach instructed the company to drain the water loops and kettle jackets, these instructions were ignored and only came to light after the huge kettle was on its way to being boiled. The kettle, loop and jacket were subsequently drained and idled for 24 hours and a second kashering performed. It is worthwhile when talking to companies to stress the importance of following every detail of the kashering protocol.

In some cases the company cannot wait 24 hours, and we allow for being *pogem* the water in the jacket or water loops. What level of *pegima* is necessary? Is it enough if the water is *pagum* (tastes bad) or must it be *nifsal mai'achilas adam*?

The Shulchan Aruch (Y.D. 95:4) says that if ashes were added to a pot of water and then milchig and fleishig dishes were added, the dishes remain kosher since the *ta'am* of

meat will mix with the ashes and will impart a *ta'am lifgam*. The *Pri To'ar* (Y.D. 95:6) crystallizes this point by commenting, if *issur* was cooked in a pot with ashes, the *issur* would remain forbidden. However, the *ta'am* that emanates from the *issur* would not *assur* the *kli* since it is *ta'am lifgam*. We see clearly that although the *issur* does not reach the level of *nifsal mei'achilas adam* and as such the piece of *issur* remains *assur*, nevertheless it cannot *assur* since what is absorbed will be a *ta'am lifgam*. Based on these sources, Rav Belsky has said that it is enough if the water tastes bad. However, the *Chazon Ish* (Y.D. 23:1) seems to require enough ash to make the water *nifsal mai'achilas adam*. Rav Schachter recommended that whenever possible we should require enough *pegima* to make the water *pagum ligamrei*¹.

WHICH CHEMICALS ARE EFFECTIVE AS A POGEM?

The best *pogmim* are items that have no food application such as Bitrix (3-5 ppm), caustic soda² (1-2%) and boiler chemicals. Propylene glycol at 15% concentration is completely *nifsal mai'achilas adam*, however at much lower percentages it is added to foods. The concern is that perhaps only a small amount of the *ta'am* of propylene glycol will transfer and actually give a good taste into the food. Rav Schachter has said that this is still acceptable; since in its current state it is *nifsal*.

Boilers present an additional challenge because many *pogmim* do not travel with the steam but simply remain behind in the boiler. Even if one is properly *pogem* the boiler, the steam and subsequent condensation might not taste *pagum*. Is this acceptable? Rav Belsky has said that if the boiler water was originally *nifsal ligamrei* then it is acceptable. One of the reasons for this leniency is since “*nifsal mai'achilas adam*” water has a *chezkas kashrus*, we can assume it remains kosher unless we know otherwise. Therefore, even if much of the *davar hapogem* is removed through distillation, we can assume that *ta'am issur* (if there was any) was removed as well³.

Te'ima (tasting without swallowing) of *issur* is forbidden *mi'dirabanan*⁴. If so, how is one

permitted to taste boiler water to make sure that they are sufficiently *pagum*?

Tzemach Tzedek (*Siman* 47) permitted those who make soap to be *to'em* the soap, to see if it needs more salt, since *te'ima* is *dirabanan* and soap is *pagum*.

The *Mateh Yehonasan* (Y.D. 108:5) explains that *te'ima* is only forbidden in situations where there is a concern that one might come to swallow the *issur*, however if the *issur* is *pagum* and this concern does not exist (as in the case of soap) then *te'ima* is permitted. Boilers usually contain hazardous chemical treatments and *davarim marrim*. Since one would definitely be careful not to swallow this water the *issur* would not apply.

Another reason to allow tasting boiler water is based on *Taz* (98:2), who indicates that whenever the *issur* is only a *safek*, *te'ima* is permitted⁵.

IN SUMMARY:

- ▶ 24 hours before kashering, water loops and jackets should be drained
- ▶ If one is *pogem* water, it should taste bad. *Lichatchila* it should be *nifsal mai'achilas adam*
- ▶ When one is *pogem* a boiler, if there is concern that the *pogem* is distilled from the steam, it is necessary that the boiler be *pagum ligamrei*.
- ▶ It is best to use chemical *pogmim* that have no food application
- ▶ One may taste and spit out boiler water to make sure it is sufficiently *pagum*. ■

¹ Although *bitul* of *ta'am lifgam* is not permitted *lichatchila*, in situations where there is no *kavana* to be *mivatel* the *issur* and the *bliya* (through the *kli*) is only a *safek*, it is permitted.

² A standard CIP caustic cycle contains 1-2% caustic in combination with other surfactants.

³ Additionally, it is possible that enough *davar hapogem* did travel with the steam to impart a *ta'am lifgam* into the next product. Since the product initially had a *chezkas pagum*, we remain with that *chazaka*.

⁴ *Rivash* (*Aiman* 258) cited by *Rama* (Y.D. 108:5)

⁵ *Shach* 42:4 offers a differing approach that would not necessarily allow *te'ima* on *safek issur*. However, there is no reason to assume that he would not allow *te'ima* by a *davar pagum*.

GLENMORANGIE ANNOUNCES OU CERTIFICATION

Scotland's Favorite Single Malt Scotch Goes Kosher

THE Glenmorangie Company and Moët Hennessy USA are proud to announce that Glenmorangie Original, Scotland's favorite single malt Scotch whisky, has become kosher-certified by the Orthodox Union (OU), the world's largest and most respected kosher certification agency. Additionally, its pioneering new expression, Glenmorangie Astar, has also become kosher-certified. Glenmorangie's sister distillery, Ardbeg has also received OU Kosher certification for its Ardbeg 10yr old expression. New packaging and promotional materials bearing the © symbol will be distributed nationwide over the next few months. ■



CHOLOV STAM: AN UPDATE FROM THE FARM (AND LAB)

RABBI AVROHOM GORDIMER

RC, Dairy

In a recent issue of *The Daf HaKashrus* (Vol. 17 No. 3), we presented information about the contemporary controls and regulations that pertain to government inspection of milk, demonstrating (with the concurrence of Rav Belsky, shlita), that the Igros Moshe's heter for cholov stam is alive and even stronger than before.

In brief, we noted that current protocol includes government inspection of farms (which was not always the case in prior days – see *Igros Moshe YD 1:49*), which precludes milk from non-kosher species from entering the commercial milk chain. We described how milk used in commercial dairy plants can only be provided by government-approved source farms, and how government inspectors track documentation for all milk shipped to commercial dairies to assure that it indeed originates from an government-inspected farm.

After discussion with a high-ranking senior dairy farm inspector in upstate New York, as

well as with administrative officials at departments of agriculture of several states, the following additional points of information were determined to be worthy of publication to the readership:

- ▶ Goat and sheep milk farms must be licensed specifically for these types of milk. Otherwise, all milk licensing applies only to cow milk.
- ▶ Farms which have animals other than cows (most notably Amish farms) must either keep the other animals in different quarters from the cows, or – if this is not feasible – a partition must be erected to physically prevent the other animals from contacting the cows.
- ▶ Animals other than cows (or goats and sheep, as per the farm's license) are never permitted in the milking parlors or milking areas of barns. Their presence in the milking areas would be a red flag violation.

- ▶ Dairy farms are strictly prohibited from adding milk from any other species to cow milk.
- ▶ Milk from all dairy farms that provide the commercial market must be sent to laboratories for analysis. Unlike the laboratory analysis conducted on milk samples taken from dairy plants, the analysis of dairy farm milk tests for protein, fat and cell levels, all of which indicate whether the milk is from cow or other species. Even one pail of milk from other species intermingled in a silo sample of cow milk would show up in the results and indicate that the milk is not pure cow milk.
- ▶ The state routinely reviews the laboratory analyses of milk from all dairy farms which supply the commercial milk chain. ■

¹ This new information does not in any way negate the validity of the p'sakim which do not accept cholov stam, such as *Chelkas Yaakov 2:37-38*, and the apparent objection to any notion of cholov stam in the *Aruch Ha-Shulchan – YD 115:5*

RAV SIMCHA KOOK, SHLITA, FROM RECHOVOT VISITS OU KOSHER

Photos left to right:

Rabbi Genack introduces Rav Kook

Rav Kook gives his shiur to the OU Rabbinic staff



ELECTRONIC INSPECTION REPORT (EIR)

WE are happy to announce that as of June 2, 2010, the EIR (Electronic Inspection Report) and EFR (Electronic Financial Report) submission system is now live through OUDirect.org.

A project of this magnitude took months to develop and bring to this stage of completion. It is only with Rabbis Genack and Elefant's encouragement and support and Rabbi Zywic's coordination and management that this project came to fruition.

We all owe a debt of gratitude to the IT Department headed by Dr. Sam Davidovics

and his very dedicated team: Gitty Ben-Ari, Shlomo Cutler, Larry Finson, Judy Goldstein, Dan Jesselsohn, Sara Karasik, Chana Rochel Klein, Reuven Komarovsky, and Ali Myers for all of their hard work in creating this comprehensive system.

Please begin using this program to submit inspection reports and financial reimbursement requests.

We would like to express our appreciation for all those RFR's who took time out of their busy schedules, especially on an Erev Shabbos, to join in the Webinar Presentation

starring our esteemed and very own, Rabbi Stone. We thank Rabbi Stone for his outstanding performance.

We plan to offer a segmented tutorial at a future date which will allow you to review any or all sections of the EIR/EFR at your convenience. As soon as it becomes available we will send out an e-mail notification. In the interim please refer to the manual that you received prior to the webinar. Should you have any questions while using this program and cannot locate an answer in the manual, please contact the OUDirect Helpdesk (Ext. 322). ■

WHAT'S THE BERACHA ON...

LARABAR ?

BY RABBI ELI GERSTEN

RC Recorder of OU Psak and Policy



A **LARABAR** is a date bar made by the Larabar company, and is certified kosher by the OU. There are multiple varieties, but each of them contains, as the primary ingredient, dates. The other ingredients, depending on the variety, are nuts, spices, and other fruits.

What is the beracha rishona? How many bars must be eaten before making a beracha achrona, and what should the beracha achrona be?

PROCESS AND INGREDIENTS

Dates, along with the other ingredients, are mixed together and pressed into a dough. According to Larabar, the amount of date in a bar ranges from 40-70 percent, depending on the product. Even when date constitutes only 40 percent of the product it is the ingredient present in greatest proportion. The dates, besides giving flavor, also serve as a base for the bar.

WHAT IS THE BERACHA RISHONA?

Although dates, when pressed into a dough, are not readily identifiable, at least visually, as dates, *Shulchan Aruch* (O.C. 202:7, and cited in *Mishna Berurah*, 202:42) nevertheless states that the appropriate beracha is *Borei pri ha'eitz* (in many other cases, when a fruit, or food, loses its identity and is subsumed in a mass or dough, the appropriate beracha is *she'hakol* (See *Mishna Berura* 202:42).

WHAT IS THE BERACHA ACHRONA?

One must eat a minimum of a *kezayis* of the date itself or in combination with other fruits of the *shivas haminim* (grapes, figs, olives, pomegranates) in order to make an *al ha'eitz*. The size of a Larabar is 2.8 inches long, 1.3 inches wide, and .56 inches thick. This means that it is just over two cubic inches, or about 34 cubic centimeters (or 1.1 fluid ounces). According to Rav Chaim Nah, a *kezayis* is 27 cubic centimeters.

Therefore, even in a bar which contains 70 percent date, there is only about 23 cubic centimeters of dates. Even if the bar contains some raisins it is unlikely that there would be a *kezayis* of *shivas haminim* fruit. Therefore, an *al ha'eitz* would be inappropriate after eating only one Larabar.

However, two Larabars definitely contain a *kezayis* of dates – even if dates were to make up only 40 percent of the bar and the bar contains no raisins.

After eating only one Larabar, the appropriate beracha is *borei ne'fashos* (see *Mishna Berura* 210:1). After eating two bars, the appropriate beracha is *al ha'eitz*.

There may or may not be a *kezayis* of date after one and a half Larabars, and therefore unless one can tell that there is clearly a *kezayis* of dates and possibly raisins, the safest strategy is to either eat no more than one bar or to make sure to purchase at least two bars.



KASHRUTH ALERT

CITAVO FRENCH VANILLA artificially flavored ice coffee produced by Vitality – Ontario, Canada is marked with a regular Ⓢ (no 'D') although it is a dairy product. The item has been discontinued.

A limited amount of **AMERICA'S CHOICE 26 OZ HOT COCOA** UPC 7 54807 29069 9

Date code 05/04/11 MCA canisters produced by A&P, Montvale, NJ inadvertently contain non-kosher marshmallows. Affected product is limited to those products bearing the date code BEST IF USED BY 05/04/11 MCA. Product with the code RCA is correctly labeled. Consumers should contact their Rabbi to determine the status of utensils that have come in contact with the above product. Consumers spotting this product are requested to contact the Orthodox Union at 212-613-8241 or via email at kshalerts@ou.org.

CINQUINA ARTICHOKEs, BRUSCHETTA TOPPING, PESTO GENOVESE, SUNDRIED TOMATOES, CAPERS AND CAPERS WITH STEM produced by Cinquina S.R.L. – Lanciano, Italy mistakenly bear an unauthorized Ⓢ and are not kosher. They are being withdrawn from the marketplace. Consumers spotting these products are requested to contact the Orthodox Union at 212-613-8241 or via email at kshalerts@ou.org.

NEW HARVEST NATURALS GLUTEN FREE POUND CAKES produced by Abe's Place Gourmet Delicacies – Allentown, PA are no longer certified by the OU. Products in packages that bear the Ⓢ were produced under supervision and may be used.

ORIGINAL KASHKAVAL SHEEP'S CHEESE (made in Bulgaria) produced by Corfu Foods, Inc. is not certified by the OU and bears an unauthorized ⓈD. The product is being withdrawn from the marketplace.

WOEBER'S MAYO GOURMET ROASTED CHIPOTLE MAYONNAISE UPC 0 24680-00855 7 produced by Woerber Mustard Mfg. Co., Springfield, OH contains dairy ingredients as listed on the ingredient panel but the ⓈD dairy designation has been inadvertently omitted. Packaging has been revised. The dairy content is insignificant, and therefore is botul (nullified).



to our devoted RFR in Vancouver, Canada **RABBI ELI LANDO AND HIS WIFE** on the birth of their daughter Chaya Mushka.

to our dedicated Executive Rabbinic Coordinator **RABBI YAAKOV LUBAN AND HIS WIFE** on the marriage of their son Avrohom Yitzchok to Lieba Bloom.

to our devoted RFR in KY **RABBI YOSEF LEVY AND HIS WIFE** on the bar mitzvah of their son Shimi.



ASK OU 10 SUMMER PROGRAMS

ASK OU - KASHRUS TRAINING PROGRAM «1 WEEK
MONDAY, AUGUST 2 to FRIDAY, AUGUST 6

If you are a congregational rabbi, semicha student, chaver hakollel or a member of a Vaad Hakashrus

ASK OU - KASHRUS INTERNSHIP PROGRAM «3 WEEKS
JULY 21 to AUGUST 10

If you are a serious semicha student or chaver hakollel, you may be eligible to join a special three-week Kashrus Internship Program

TO REGISTER, CALL TODAY 914-391-9470.

PARASITES
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3. Parasites in the flesh of fish is not a new phenomenon, but can be traced back 700 years ago in the literature of Rishonim, which also recognize that these worms are not dormant but can migrate.
4. The size of the immature parasites while in the ocean is microscopic and therefore not forbidden at that stage. It is possible to suggest that since the microscopic parasite develops as noticeable in a host after it is ingested, it is therefore not considered a *sheretetz hayam*.
5. There are still several unknowns in the world of science regarding parasite development.
6. This precise issue was presented years ago to numerous gedolei yisroel, many of whom ruled leniently.

**... IN 1978...
THIS SAME SHEILAH WAS
PRESENTED TO
RAV MOSHE FEINSTEIN ZT'L**

Rabbi Vaie also summarized the current positions of certain gedolei yisroel in Eretz Yisroel:

1. Rav Shmuel Wosner shlita and Rav Yosef Shalom Elyashiv shlita advise one to be vigilant.
2. Rav Nissim Karelitz shlita has ruled that one may eat fish without checking for parasites, although if a parasite is noticed it should be removed.
3. A well known and highly respected kashrus agency in Eretz Yisroel certifies herring; despite consistently high concentrations of anisakis. This is because their Beis Din essentially assumes that parasites found in the fish flesh are permissible.

Rabbi Moshe Yosef Blumenberg, an associate of the Tartikover Beis Din who has



Rabbi Genack introduces Rabbi Vaie



Rabbi Yechezkel Meisels

researched a significant amount of scientific data in this area also presented.

Rabbi Blumenberg demonstrated the following points:

1. Scientific studies assume that migration between the stomach and flesh occurs while the fish are still living, unlike what others have suggested that it occurs after death since the fish are not gutted properly.
2. There are discrepancies and differences of opinion amongst scientists with details about the anisakis' lifecycle.

The third and final presenter was Rabbi Yechezkel Meisels, mora de'asra of Ehel in Williamsburg. Rabbi Meisels related that he was present with Dayan Gross in 1978, when this same sheilah was presented to Rav Moshe Feinstein zt'l. Rabbi Meisels proceeded to tell the background of the sheilah prior to visiting Rav Moshe and that he received letters from two scientific experts outlining the lifecycle of a parasite that is found in the flesh of fish. Rabbi Meisels recounted how he and Dayan Gross came to Rav Moshe with samples of fish and these two letters, showing them while explaining that modern science assumes that these parasites originate from outside the fish. Nevertheless, Rav Moshe unwaveringly responded that since the parasite is found in the flesh of the fish, it should therefore be permitted in accordance with Shulchan Aruch. When asked if a teshuva could be written, Rav Moshe declined since the answer is clearly found in the *Mechaber*.

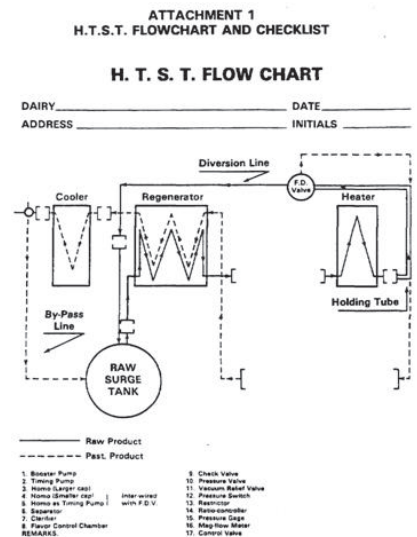
Throughout the meeting there was ample and extensive discussion of the differing sides of the issue.

PASTEURIZERS
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VERIFICATION

How does one know that the divert vales were opened for part of the kashering? There are two ways to determine this:

- a. The outer area of the Taylor chart, around its perimeter, often has a pen line, which features a solid line that does not fluctuate. This line measures the divert valve: when the valve is closed, the line is in one position, and when the valve is open, the pen line drops at a 90-degree angle and turns at 90-degree angle, so as to create a clear indentation. This indentation shows that the divert valves opened or closed. One can thus tell that the valves were open and closed and for how long.



- b. Every valve has a number, as does every pump and every piece of equipment in the system. The number identifies the valve and shows where the order was sent. Thus, one can use a CIP pin chart or computer graph to show the opening and closing of each valve. One must identify the relevant valves that need to be opened – and one needs to be trained to be able to read a CIP pin chart or computer graph for this purpose.

Please note that every system features two temperature probes – one at the end of the pasteurization holding tube and one at the exit of the cooling system.

Also, typically, divert and leakage valves open and close in tandem.

This memo is a mere overview for those who asked to know more about these systems; it does not suffice and cannot act as a training tool. Please consult those who have mastered this topic for guidance toward implementation.