4. HOUSE RULES
TEMPERATURE CONTROL

The House Rules Section contains 9 sub-sections each of which covers a particular subject of food safety management.

Every House Rule sub-section begins with guidance and then provides advice on how to write your own House Rules.

A template is then provided for use when writing the House Rules.

Your House Rules should reflect your current safe working practices on the 9 food safety subject areas covered in this manual.

WHAT YOU NEED TO DO

• Read the guidance provided at the beginning of this sub-section

• Draw up your own House Rules describing how you intend to manage temperature control in your business

• Once you have completed all your House Rules, remember to update your Action Plan

Think about the temperature control practices that you already have in place. It is possible that you will simply have to write these down to produce your Temperature Control House Rules.

> **THE TEMPERATURE CONTROL HOUSE RULES ARE AN ESSENTIAL COMPONENT OF YOUR HACCP BASED SYSTEM AND MUST BE KEPT UP TO DATE AT ALL TIMES**
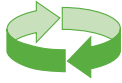
RELEVANT HACCP CHARTS: All HACCP Charts

TEMPERATURE CONTROL HOUSE RULES

Why is Temperature Control important?

Temperature control is important because harmful bacteria are a hazard present in many of the foods handled in catering businesses. They also tend to multiply rapidly at room temperature. As bacteria are invisible to the naked eye and cannot be physically removed from food, all we can do is control their numbers. There are, however, two main ways in which temperature can be used to achieve this :

1. We can destroy harmful bacteria, or reduce their numbers, by cooking or reheating
and
2. We can control their growth by keeping food hot or cold

How can temperatures be used to keep food safe?

In catering operations, the following practices are recommended to keep food safe.

Refrigeration	A food temperature of 8°C or below is effective in controlling the multiplication of most bacteria in perishable food. It is recommended practice to operate refrigerators and chills at 5°C or below.
Freezing	Freezing of food at temperatures of -18°C or below will prevent bacteria multiplying.
Cooking	Temperatures of 75°C or above are effective in destroying almost all types of bacteria. However, cooking temperatures below this level are also effective provided that the food is held at these temperatures for a suitable time period. (refer to the Cooking HACCP chart)
Hot holding	Temperatures above 63°C will control the multiplication of bacteria in hot food.
Cooling	Food should be cooled as quickly as possible and then refrigerated. This will limit the growth of any bacteria or germination of spores that may be present.
Reheating	All food that has previously been heated and is to be re-heated, must be raised to a temperature of 82°C, which will ensure that food has been reheated to a safe and, in some cases, legally required temperature. Using a suitable time/temperature combination will also ensure that food has been reheated safely should higher temperatures be detrimental to the quality of the food, for example reaching a core temperature of 70°C for 2 minutes.

How are these temperatures used to keep food safe?

HACCP based food safety procedures require the business to set Critical Limits.

For example, you may decide that you will cook meat dishes to 75°C or above. Similarly, you may decide that your refrigerator should operate at 5°C or below. These temperatures would then be the Critical Limits for **Cooking** and **Refrigerated Storage** respectively.

The table above gives Critical Limits that may be appropriate for your business. You may, however, find that there are other temperatures or methods, which are more suitable for you. The Critical Limits that you choose must be sufficient to ensure that the food you produce is safe. For further advice, you should contact your Enforcement Officer.

How can Temperature Control Measures and Critical Limits be described?

The table below lists the process steps found in most catering businesses and provides suggestions on how to use the information contained in the table on the previous page. Consider your own catering procedures and then describe your Temperature Control procedures as well as the Critical Limits that apply to you :

PROCESS STEP	TEMPERATURE CONTROL MEASURE/CRITICAL LIMIT
PURCHASE/ DELIVERY/ RECEIPT/ COLLECTION	• Transport/accept chilled food at your specified temperature for example **5°C or below** • Transport/accept frozen food at your specified temperature for example **–18°C or below**
STORAGE	• Store chilled food at your specified temperature for example **5°C or below** • Store frozen food at your specified temperature for example **-18°C or below**
PREPARATION	• Keep cooked/ready-to-eat food within the chill or refrigerator until it is required, then prepare/handle without delay • Thoroughly defrost all frozen foods in a chill, refrigerator or cool area • Thoroughly defrost all frozen foods prior to cooking (unless specified otherwise by the food manufacturer)
COOKING	• When cooking poultry, rolled meat joints, stews, casseroles, minced meats and meat products, ensure the centre reaches a suitably high temperature for example 75°C or above • Whole cuts of beef and lamb which have not been rolled or skewered and are to be served pink or rare, may not need to reach this temperature but should be properly cooked at a suitably high temperature • Similarly, steaks cooked "rare" need not be cooked to this temperature but you should ensure that the external surface has been cooked at a suitably high temperature to kill any bacteria on the surface of the meat
HOT HOLDING	• All foods which are to be held hot prior to serving must be kept at **above 63°C**. These foods should be placed in appropriate equipment, for example a pre-heated bain-marie/hot cabinet , as soon as possible after reheating or cooking
COOLING	• Hot food should be cooled as quickly as possible and then refrigerated • If possible, cool food in small portions or in shallow containers • Avoid placing "hot" food in refrigerators
REHEATING	• Reheat food thoroughly until the core temperature is not less than 82°C. This is not required if the food would be spoiled by reheating to this level • Alternate time/temperature combinations can be used for reheating in these circumstances, for example 70°C for 2 minutes • Reheat the finished dish only once
SERVICE AND DELIVERY TO CUSTOMERS	• Chilled foods being **served cold** should be kept under refrigeration at your specified temperature for example **5°C or below** prior to service • Foods being **served hot** must be kept hot at above **63°C** • Chilled food being **delivered cold** should be held at your specified temperature for example **5°C or below** • Food being **delivered hot** should be held at above **63°C**

### How can you tell that your Critical Limit Temperatures are being achieved?

When using HACCP based procedures, you are required to check that your Critical Limits are being met. This is referred to as **Monitoring**. The most reliable method of monitoring temperatures is by the use of a suitable thermometer – a procedure often referred to as **Probing**. However, it is not always necessary or appropriate to use a thermometer. In such cases, other methods may be more practical. (refer to Cold and Hot Temperature Monitoring Without using a Thermometer paragraph below)

At the end of this sub-section, you will be asked to draw up your House Rules for Temperature Control. These House Rules should include the Critical Limits for each process step and the Monitoring procedures you will follow.

Temperature Monitoring using a Thermometer

In many cases, the temperature of food can be checked using a probe thermometer. Ideally, a hand-held digital thermometer should be used when probing foods and checking air temperatures. This may be supplemented by additional "in-place" thermometers which may be located in refrigerators, chills, cold displays and freezers. Thermometers should be kept clean at all times. Probe thermometers should be sanitised/disinfected before/after each use. Under no circumstances should a mercury in glass thermometer be used as it would present a contamination risk if it breaks.

It is important that you regularly check that the probe thermometer you are using is working correctly.
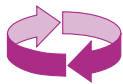
In the **Records** Section of this manual, there is a 'Monthly Probe Thermometer Check' for you to record the checks you carry out on your probe thermometer.

Cold Temperature Monitoring

- Always check the temperature of the warmest part of the chill

- Avoid checking the temperature of refrigerators, chills, cold displays or freezers immediately after the door/lid has been open for any significant period of time or during a defrost cycle

- Displays built into refrigerators, chills, cold displays and freezers indicate the air temperature within the appliance. These can be useful for day-to-day monitoring but should be checked regularly with a digital thermometer as a back-up check.

- Avoid puncturing the packaging of wrapped food when checking temperatures. In this case, temperatures should be taken from between the packs

IMPORTANT! <u>**You must determine the frequency of cold temperature monitoring in your House Rules. For example :**</u>

- It is advisable to check all refrigerator, chill, cold display and freezer temperatures at the start of the working day

- It is also advisable to check all refrigerator, chill and cold display temperatures at some other part of the day

Hot Temperature Monitoring

- The temperature of a food may vary throughout, especially during cooling and heating, therefore large pieces of meat or poultry should be probed at the thickest part. Alternatively, in the case of stews, soups and other 'liquid' foods served hot, it is essential that food is stirred to ensure adequate distribution of heat before probing

- Temperatures of foods being 'Hot Held' in a bain-marie or displayed at a buffet are best measured by probing the foods

> **IMPORTANT!** <u>You</u> must determine the frequency of hot temperature monitoring in your House Rules. For example :
>
> - When cooking food such as stews, soups, curry, sauces served hot and whole chickens, you may decide to probe the product at regular intervals during the cooking process to ensure the food is being properly cooked
>
> - When hot holding batches of food, you may set a maximum time limit on the display of the product combined with regular monitoring of the temperature dial (if appropriate) on the equipment. In this case, you would use the temperature probe as a back-up check
>
> - When cooling food you could set a time limit on the cooling period and check that the product is capable of being refrigerated by that time

Cold and Hot Temperature Monitoring - Without using a Thermometer

Certain foods may not require to be probed every time they are cooked, cooled or reheated. This may be because there are other ways of ensuring that the Critical Limit has been achieved.

For example :

- When cooking items like stir fry, it may be sufficient to make a visual check that it is thoroughly cooked

- When cooking or reheating individual portions on a repeated, identical basis, it may be sufficient to simply repeat the exact procedure on every occasion

- When checking that a freezer is functioning properly, it may be sufficient to make sure that the contents are still obviously frozen and that there is no visible evidence of defrosting

IMPORTANT! <u>You</u> must determine your methods of temperature monitoring in your House Rules

- Whatever temperature control method is being used, it is essential that the critical limit is achieved on every occasion. However, this does not mean that every item of food which is being held cold, cooked, reheated or hot held needs to be monitored using a probe thermometer on every occasion

- It will, however, be essential that occasional checks are made with a probe thermometer. Also, even if you don't probe a food, you will still be required to monitor some aspect of the procedure, such as the visual appearance of the food or the cooking time. A predetermined appearance or cooking time should be used in such instances

- Certain foods present no risk when undercooked, for example, most vegetables. The cooking temperature of such foods need not be monitored

- Your methods of temperature monitoring will be dependent on the knowledge and understanding of your food handlers together with the effectiveness and efficiency of your work equipment

You are provided with a number of forms that can be used to record temperature monitoring but it is your decision which records are appropriate for your business.

Temperature checks can be recorded on any of the following record forms:

1. Delivery Record
2. Cold Food Record
3. Hot Temperature Record
4. Hot Holding Record
5. Off Site Temperature Record
6. All-In-One Record (used as an alternative to records 1 - 5)
7. Weekly Record

These record examples can be found in the **Records** section of this manual.

Temperature Monitoring Summary

- You must ensure that the Temperature Control Critical Limits you set for all high risk foods held in your kitchen are regularly monitored

- One method of monitoring Temperature Control is by using a clean probe thermometer. While this method may be suitable and appropriate for many foods, you are not expected to probe every high risk food item prepared in your business

- Not all monitoring requires to be recorded. You are not expected to write down every temperature check you make

- Your Temperature Control records must demonstrate your commitment to effective temperature control in your business. Without records, it is impossible to show that you understand the need for good temperature control. Too much record keeping is difficult to maintain and can be frustrating to complete

- You must decide what is the appropriate level of record keeping to reflect your business activities

- If you require further assistance, you should contact your Enforcement Officer

WHAT YOU NEED TO DO NOW

How to draw up your Temperature Control House Rules

- Consider what you do – 'Cook**Safe**' requires that you consider the various Temperature Control procedures that are followed in your business

- Write them down in the table - Write down the Temperature Control measures that are applied at each process step. A table, which can be used for this purpose may be found at the end of this sub-section. Remember to include a Critical Limit for each process step

- Refer to the guidance at the start of this sub-section - You may refer back to the table at the start of this sub-section for guidance on suitable Critical Limits. Alternatively, you may wish to specify other temperatures which are more appropriate for your business

- Write down how you will monitor Temperature Control - State the monitoring procedure you intend to use to ensure your Critical Limit has been achieved. Remember to state clearly the frequency of monitoring and describe how this monitoring will be recorded

Here is an example of how you could write your House Rules :

Process Step	Temperature Control Measure and Critical Limits	Monitoring Method, Frequency and Records used
Cooking	- Poultry, rolled meat joints, stews, casseroles, minced meats and meat products - heat the centre to 75°C or above - Whole cuts of meat, which have not been rolled or skewered may not need to reach this temperature - Steaks cooked "rare" need not be cooked to this temperature. Ensure that the external surface has been cooked to a suitably high temperature.	- All poultry, rolled meat joints, stews, casseroles, minced meats and meat products probed at the end of the cooking process - Whole cuts of beef and lamb, which are to be served pink or rare, need not be probed - Visual checks on rare steaks All of the above should be recorded on 'Hot Temperature Record' or the 'All-in-One Record'

Monitoring

Once you have completed your House Rules for Temperature Control, you must then monitor their use. Keep a record of the monitoring you carry out. This can be done using the **Delivery Record, Cold Food Record, Hot Temperature Record, Hot Holding Record, Off Site Temperature Record** or alternatively the **All-in-One Record** and the **Weekly Record**. (refer to the **Records** Section of this manual)

Corrective Action

If you find that your Temperature Control House Rules are not being followed you must make a record of the problem you have identified and the action you have taken to correct it. This information can be entered in the **Weekly Record.**

The training given in Temperature Control should be recorded on the training record. An example of a training record can be found in the **Training House Rules** sub-section of this manual.

> It is required that all records of monitoring, at a frequency decided by you, and any corrective action(s) taken be kept for an appropriate period of time to demonstrate that your HACCP based system is working effectively.

Action Plan

Once you have completed all your House Rules, remember to update your Action Plan.

The Temperature Control House Rules are an essential component of your HACCP based system and must be kept up to date at all times. Your House Rules need to be written to accurately reflect how you run your business and be readily understood by your food handling staff.

TEMPERATURE CONTROL HOUSE RULES

Enter a statement of your **Temperature Control House Rules** in the table below :

Process Step	Temperature Control Measure and Critical Limits	Monitoring Method, Frequency and Record(s) used
Purchase, Delivery/Receipt, Collect		
Storage		
Preparation		
Cooking		

Hot Holding (including buffets)		
Cooling		
Reheating		
Service and Delivery to Customers		

Signed .... Position in the business .... Date ....

The Temperature Control House Rules are an essential component of your HACCP based system and must be kept up to date at all times.