PEST MANAGEMENT GUIDELINES
FOR RETAIL FOOD HANDLING FACILITIES AND RESTAURANTS »

NPMA
National Pest Management Association

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Pest Management Guidelines for Retail Food Handling Facilities and Restaurants

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INTRODUCTION

Pest control provided to the food service industry serves an important and invaluable service by protecting public health, brands, and property. As a part of this important service that pest management professionals provide, we are a first line of defense against potential food borne illnesses spread by pests. According to the Centers for Disease Control and Prevention (CDC), there are five important factors that contribute to food-borne illness, including food from unsafe sources, inadequate cooking, improper holding temperatures, poor personal hygiene, and *contaminated equipment.*

Cross contamination can occur when you transfer a disease-causing organism from one food to another food. Any employees, including pest management professionals, should be trained on cross contamination when working in retail food handling facilities. For instance, if an employee is sick one day, they should not be the technician sent out to service a route with food handling facilities. Care should be taken to not touch any food preparation surfaces after inspecting and crawling on a floor, under cabinets, or other surfaces that could facilitate the spread of disease.

Vector-borne diseases have been responsible for countless deaths throughout recorded human history, decimating both urban and rural human populations, and resulting in serious social and economic upheaval. Although not as highly publicized as the more exotic vector-borne illnesses, foodborne diseases carried and transferred by pests remains a constant concern in the food industry.

Few people would argue that cockroaches, rodents, and flies are undesirable pests of food service facilities. Pests such as cockroaches hitchhike into restaurant facilities in deliveries, clothing or other personal items. Rats and mice often depend on humans for their food, water and harborage. Filth flies are considered synanthropic because they benefit from this close association with humans. Once inside a facility, pests become a health and safety hazard not only to the restaurant patrons, but for the employees as well. Pests can be a source of pathogenic and spoilage microorganisms, toxins, and allergens. This is one reason that they must be eliminated from food service facilities.

The food-safety hazards of pests in and around restaurants include: (1) direct incorporation of the filth from the bodies of insects, rodents, birds and other animals into food or (2) contamination of food or food-contact surfaces by the metabolic products released by those pests and the microorganisms that they carry.

Cockroaches

Pest cockroach species such as the German cockroach carry a multitude of bacteria, viruses and potent allergens. Bacteria can be transferred to surfaces including food-contact surfaces from their tarsal claws and abdomen as they move about searching for food, water and harborage.

Rodents

Rodents eat food directly or spoil it by contamination with their fur, urine and feces. This creates an increased risk for rodent-transmitted disease or foodborne illness, including *Salmonellosis* – A food poisoning bacterium that thrives in unsanitary environments like sewers and garbage storage areas.

Filth Flies

When a food service facility does not implement controls against filth flies such as the common house fly, people are potentially exposed to the numerous human-transmittable pathogens they can harbor,

including those for *Salmonellosis* and *E.coli*. Flies are important vectors of disease because they breed and feed in unsanitary environments including garbage and animal waste. Many of these flies reproduce rapidly and are highly mobile, increasing their potential to infest restaurants and spread disease throughout a facility. The numerous crevices in their sponging mouth parts harbors bacteria and viruses that can be easily transferred to any surface they land or feed upon.

Pest Birds

Many people may see pest birds as pleasurable creatures without knowing some of the health risks these pests pose to humans. Their roosting and nesting behaviors around food-service facilities increases the risk of disease-transmitting bacteria, viruses or parasites in a facilty that can be carried in/on their feathers, nests and droppings. Such diseases include:

- *Histoplasmosis* – A respiratory disease caused by inhaling spores from a fungus documented on poultry farms and in chicken coops.
- *Ornithosis* – Similar to viral pneumonia, it is caused by a virus-like organism that can be transmitted by pigeons shedding the organism in their feces.
- *Salmonellosis* – The causative bacterial organism has been found in pigeons, sparrows, and starlings and can be spread to people on food or food surfaces where birds walk or defecate.

These potential risks to employees and guests that can be caused by pest presence in a restaurant facility should be a concern for all foodservice operators. However, facility owners and operators can significantly reduce the associated risks with a comprehensive pest management program from a qualified pest control professional.

This guidance is comprised of three sections that all interact together – record-keeping and communication are a major part of implementing an integrated pest management program for retail food handling facilities. The importance of developing a true partnership between the pest control operator and the restaurant or food service clients we serve should not be taken lightly. Without this partnership, the effectiveness of pest prevention will be limited.

SECTION 1 - COMMUNICATION

1.1 Communication with Facility Contact

The relationship you develop with your client is one of the most important aspects of pest management at the restaurant level. Open dialogue with staff, management, and corporate representatives is key when servicing these often fast paced, high output locations.

Establishing regular communication allows for successful management of pest issues. Pest Management professionals can also be of assistance when reporting sanitation and structural issues relating to pest control. This strengthens and solidifies a team approach to effective pest management and food safety.

Varying levels of restaurant style facilities can be found throughout North America, from the small "Mom and Pop" style restaurant to a fast food national chain. Regardless, ensuring that you speak with someone onsite each visit is essential and builds a lasting commitment.

Here is a step-by-step process for communication that can be implemented at any given food service establishment:

1. Communication begins at the top. Company leadership must clearly define its philosophy, business imperatives and service offerings.

2. The next big step occurs during the new hire process wherein, leadership makes the expectations of all parties exceedingly clear. It is leadership's responsibility to accurately and clearly explain what it expects from employees. Employees cannot be expected to know all of the policies without prior training.

3. The sales force needs to be fully aware of the service offerings. Leadership should put realistic expectations on salespeople to prevent undue pressure and fear of failure.

4. After inspection, patiently and actively engage the facility contact and detail the entire process. Verify that the customer clearly understands what your services do and do not include.

5. Make sure you have the full support of the person signing the contract and that they will communicate the expectations of meeting opportunities and corrective action requirements within their organization and hold their internal people accountable.

6. Train to any facility specific protocols. Written procedures for service should be outlined on the service ticket, in a central logbook or web portal. These details make for clear direction on service, control strategies, recommendations and pesticide applications. For a large food service chain, these may be corporate directives or simply a one-to-one contract agreement.

7. Ensure that specialists/technicians understand how to properly write an actionable service report.

1.2 Determine Point of Contact

You will need to determine your point person, or point of contact, that will manage conversations with you and identify issues. This person may be someone higher up within the restaurant (corporate) or someone who works regularly on site (field).

Most often, some level of management will be met onsite prior to beginning service. Have a discussion about any pest related issues observed while you were not onsite. These conversations are invaluable and can help steer inspections onsite. The client is your eyes and ears when not there.

Some larger chain accounts will have corporate representatives from the pest control company and the client company. These individuals can have influence and often meet via phone conference call and/or review electronic reports regularly.

Face to face contact with the appropriate onsite personnel should occur each service to maintain a strong level of communication. You should communicate with your onsite person on how often you will have face to face contact, who you will meet with, and the meeting site.

When multiple levels of management occur at a given site, certain point people must be identified, and a frequency of interaction set up. The General Manager may only be met onsite quarterly, but the location manager may need to be consulted each visit to highlight specific issues at the facility.

Account representatives from the pest control side may also arrange for monthly or quarterly meetings with specific personnel to discuss one or multiple locations.

Remain actively engaged and set expectations with your clients. Look for concerns at accounts before they become a problem and develop a process to identify concerns and communicate those to the client in a timely manner.

1.3 Written communication vs. electronic

Both forms of documentation are acceptable, although your customer may prefer how they would like to communicate. Regardless of your documentation style, accuracy is a key component of providing feedback to the client and making sure you meet your auditing and facility standards. Certain pieces of documentation are essential to provide the client support when audited by 3rd party food safety auditors and public health, so be sure to ask the facility contact of their auditing company and know the expectations of that auditor.

Provide the client with written instructions on how to clean up and get ready for operation post treatment. With the advent of great cameras on cell phones, utilize pictures in your post treatment instructions to show how to clean food surfaces, remove plastic, and signs of conducive pest conditions. Pictures can help create a clear message for communication and help you better partner with the client. Be clear and concise in your documentation and let your client know what their expectations are to keep the environment pest free.

1.4 Case Management Process: Jointly Developed Training

Define your response as a pest management professional to any pest related issues well in advance of an infestation or problem. The specifics might change but the case management process should be followed diligently every time. Initial visits should include risk areas and problems that need to be resolved within the facility. All information should be relayed to the facility contact so that the store can address sanitation and other corrective measures.

Opportunities exist within "both sides" of the case management process as it relates to response requirements and escalation expectations.

Topics to be addressed between facility contact and PMP:

- Reporting Expectations
- Service Expectations
- Response time protocol
- Escalation response management (information and service expectations)
- Closing the loop at all levels

Case Management Process Between Facility and Pest Management Professional

Risk areas identified with facility and PMP

All proper positions notified within the operation on risk areas by facility main point of contact

PMP completes service and works with store to address concerns

PMP reports back to main point of contact on continued progress
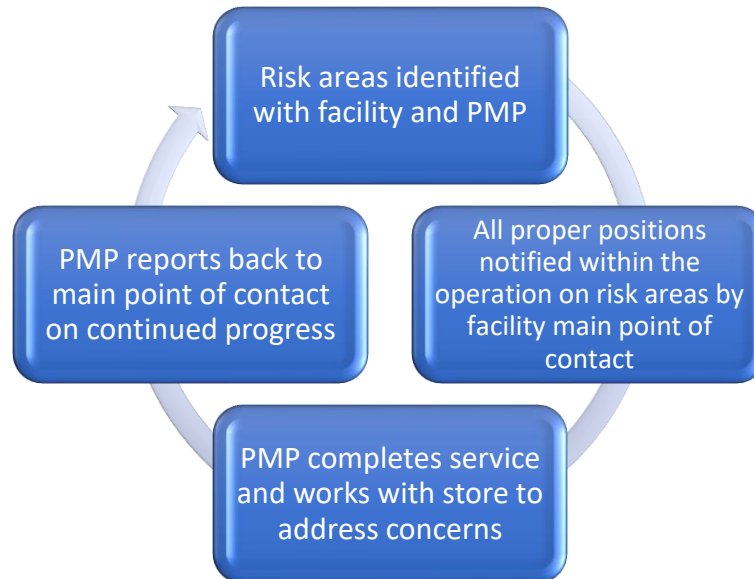
1.5 Communicating with Regulators and Auditors:

Communication with regulators and third-party auditors is a joint effort on both the client and the PMP's part. Developing a working relationship opens the lines of communication and provides opportunity for positive prevention of pest occurrences. You may need to reach out to state and local regulators to get clarity on law or specific licensing and training, whereas you may need to communicate with third-party auditors to better understand their specific policies, documentation requirements, and expectations. Having an open line of communication also allows for input from a pest management perspective so they can better understand the challenges that you face to enhance their audits and knowledge of the industry.

Familiarize yourself with the local regulators as well as any that your client has (i.e. third-party auditor) from a food safety standpoint. Standard operating procedures and pest management programs should be adjusted to meet or exceed these expectations.

1.6 Media/Consumer communication concerns – brand protection plan:

Ensure a company representative is identified to liaison with the media. Having one company representative creates a clear message and ensures consistency. There are several venues for communication and marketing whether they be twitter, Facebook, Instagram or a web page. This central spot can promote your business and enhance your relationship with your client in a positive light.

SECTION 2 – RECORDKEEPING

Documentation and recordkeeping are critical elements in maintaining a successful pest management program in food service facilities. Pest management can quickly become a struggle if the PMP and client do not have a clear understanding of the responsibilities and expectations of each party as clearly defined in a Scope of Service document. The format of records will depend on the complexity of the client organization and may range from simple paper logs to complex digital reports.

2.1 Detailed scope of service

The starting point for service is a detailed inspection and needs assessment (historical and current) that will establish the perimeters of service. The Scope of Service will detail the pests to be covered as well as the structure(s) to be managed.

Frequency of service should be determined by the pests included in the service program and the level of sanitation and structural integrity. A calendar or schedule of service needs to be established to show when services are due and what sections of the facility will be serviced on each date.

Typically, a food service facility should be serviced on a minimum of a monthly schedule for cockroaches and mice. If the facility has a large population of pests, or high pressure, the frequency may need to go to bi-monthly or weekly until the problem is abated. Poor cultural practices (sanitation, storage and structural problems) may also require increased frequency of service.

Other pests such as rats, filth flies, ants, and other pests may also require increased frequency of service based on the biology of the pests, on the levels of infestation, and conducive conditions.

IPM Plan: An IPM Program for a facility will typically include:

- Facility name and contact person(s)
- Schedule of service
- Description of the contracted services and how they will be completed
- Terms of contract
- Equipment to be provided and maintained
- List of approved materials prior to use
- Emergency call procedures
- Service records to be maintained
- Requirements and methods to notify facility of any changes of service
- Establish service expectations and action levels for pests

Additional documentation may be required depending on client needs and company protocols, including but not limited to:

- Trend reports
- Customer pest sighting logs
- Material usage reports
- Facility assessments

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- Action thresholds
- Device map detailing placement of equipment and traps

2.2 Primary contacts

As per the IPM plan, contacts should be listed. Depending on the complexity of the client, multiple contacts may be required for escalation and / or emergency needs. The primary contacts should be, at a minimum:

- Service Technician or Customer Service Representative
- On site client employee responsible for contract execution
- Emergency contacts for off-hours needs for both client and service provider

2.3 Service Protocols

The scope of service should outline the contractual obligations and clearly outline what is expected from both the pest control company and the client. It is important that any protocols outlined in the IPM Plan should correlate with the scope of service. If any changes are made in the IPM Plan, this should be reflected with a contract amendment to ensure that all protocols are clearly understood regardless of which document is referenced.

Standard Records: Service providers are required to maintain standard records to ensure compliance with federal and state regulations for pesticide application, as well as legal requirements for completion of services.

Certification/licenses: All applicators are required to have appropriate certification and licenses for pest control operations. Pesticide applicator requirements for certification or licensing and required continuing education requirements are controlled by state authorities. Each state has its own regulations and it is important to understand and follow the different rules and requirements for each state. Some cities and counties may also have additional local certification and licensing requirements for service providers and pesticide applicators.

Labels/SDS: The pesticide label is EPA-regulated and provides instructions to the applicator for use and handling, with key information on hazards and required personal protective equipment. Safety data sheets (SDSs) are regulated by OSHA and contain safety information including the health and physical hazards, chemical properties and emergency first aid. Pesticide applicators are required to have pesticide product labels and in possession or readily accessible during service operations. Product labels must be attached to the container or available as a specimen label. SDSs must be readily accessible in paper or electronic form.

Contracts for services: The contract for services provides the agreement for the pest control services to be provided. It typically includes critical information such as: the scope work to be performed by the service provider, a timeframe for completion, and terms if the service is not completed. The contract serves as a legal obligation on both the service provider and client for completion of the work and payment.

2.4 Service Records

Format of Records (Written and Digital Records): With advances in technology and the increasing demand of the food service market towards digital communications, the pest control industry is seeing an increase in demand of digital records. At the same time, there remains a significant portion of the market that still requires written records to conform with their business' level of technology adoption. Therefore, both written and digital format should be offered, provided that the content of either format includes the minimum standards outlined in this guide such as those aspects of records outlined below.

Complexities of Customer Organization: Similar to how the Pest Control Industry needs to supply records in either way that clients may require, the complexity of clients' organization structure may require pest control companies to offer their records in various ways. For instance, franchise agreements may include complexities, like which vendors may be used and what their pest management programs must include and would follow the format below for regional business or corporate-owned. Facilities that are autonomous without specific internal regulations would be similar to the small business format. Each company should establish how records should be delivered and to which organizational groups within a client's business structure. Some examples include:

> *Small business or Single business owner*: When there is no hierarchal organization, the records should be left with the small business owner's business, typically the restaurant or food service establishment where the service is performed. This may be required as well when a single owner or corporation allows individual food service locations to procure their own pest control needs.

> *Regional businesses*: In some cases, one owner or one company has regional consolidation of services. In these cases, the records can be either left with each food service establishment where the pest control service is performed (as in the case of 1 above) or they may require that records be provided to their regional office groups such as Regional Procurement or Regional Compliance teams, and often in electronic format. In many cases, both a written or hard copy of the service record is required to be left on site where the service is performed *and* a service record with an invoice be submitted electronically to the regional office team responsible.

> *Larger corporate businesses*: In larger "national account" groups or similar client structures, records may be required at multiple levels. For example, the hard copy service record may be required to be signed by the local site manager and left on site in a log book, an invoice is to be submitted to the national/international corporate office for payment, and both the service record and the invoice is to be submitted electronically to a regional operations management team. This can become complex, but the complexity and confusion on how the records are to be submitted can be averted easily by determining the required process during the sale in order to determine that the pest control operator can conform to those submitted complexities. In the case that any issue is not being addressed appropriately, the way in which issues are escalated through the client and pest control company's organizational structure should be clearly outlined for transparency. The methods of ensuring corrective actions are completed should be a part of the escalation process; describing which level will validate that actions are in place and verify that they are working appropriately.

The process for submitting records based on the client's organizational structure should be determined at the point of sale before the first service is performed to avoid confusion and ensure that the pest control operator can conform to the customers' requirements.

2.5 Inspection findings

It is very important that findings during inspections are documented on the service record during each visit. This includes aspects of the food service facility that may contribute to pest control effectiveness such as sanitation and exclusion. The observation should be described, the reason why that observation can contribute to pest activity, which pests are conducive to the finding and how to remediate the issue (recommendation) should all be included for each finding. This includes findings that are direct to pest control activities that we perform. It is important to the let the client know how we are improving our service and this is one way to do so. Additionally, all of these findings should be repeated in each service visit report from our visits until the issue is resolved. Otherwise the reports can be confusing in helping the client plan for remediation activities and get a false sense of security that the issue is resolved, when indeed it is not. The items that should be a part of the findings include:

Corrective actions/treatments: If a treatment is needed or if any pest control activity is performed to address a pest need during each service visit, the precise activity should be documented in the records. This not only shows the client what has been done, but will help determine which actions are effective during trend analysis. If corrective actions are recommended for the customer to carry out, and during subsequent inspections the PCO verifies that the corrective actions have been completed, this should be documented in the subsequent service ticket.

Recommendation: Specify what actions that you, as the pest control operator, and the client should conduct in each instance. The partnership of the PCO and the client is instrumental in remediating pest control related issues. By clearly articulating who should do which steps, the action plan will be much more easily carried out by all parties involved.

Corrective action plan: In many instances, correct remediation of an issue found may require multiple steps by multiple parties such as contracted PCO, sanitation or cleaning crew, kitchen staff, wait staff, business management, etc. These complex plans should be written clearly to outlay the responsibility of steps and detail what should be performed. Lastly, each step should specify what "success" should look like. For example, if a kitchen door needs to be replaced because ambient light is penetrating enough for flies and rodents to enter, then success would be that the door was replaced or repaired so that no more ambient light is observed, properly excluding pest entry.

2.6 Trend reports:

Trend reporting may be required as part of the contractual obligations. This should be discovered during the sales process and made a part of the program. However, it should also include notes on when corrective actions were implemented in order to determine which steps have been successful and should be integrated into part of the Integrated Pest Management plan if not done so already. Trend reporting can also be a helpful tool to offer as part of a quarterly or annual review prior to any scope alterations that may be reviewed for renewals. This can be done at a local service location level or at a regional/national level for larger accounts.

The trends may be a result of local issues or a part of the processes in a larger business chain. But the information can be used to improve pest control at the local, regional or national/international level if

analyzed correctly and instituted as part of the Integrated Pest Management plan. Either if contractually obligated or as a best practice, trending should be a part of the service offering to help clients understand what issues they are facing.

Where possible, obtain feedback from the client on which action items are outside of the control of the pest control service provider to allow trending analysis to understand which action items are effective, regardless if conducted by the client or by the pest control service provider. These verifications should be part of the documentation process.

2.7 Two Tracks:

There are 2 sections of documentation and recordkeeping that are important for pest control; (1) regulatory compliance recordkeeping and (2) brand protection via the IPM Plan and service agreement. In some cases, regulatory records are required to be kept on site while in others, they are asked to be maintained by the pest control service provider at the pest control company's location. In either case, this should be clearly understood and followed. The IPM Plan and service agreement are focused on the protocols that are in place to ensure brand protection. These include items such as the IPM Plan itself, service records, pest sighting logs, etc. This should always be kept on site for the customer to access at any time needed.

2.8 Language:

The language used in reporting and recordkeeping is actionable information at its core. Therefore, it should be simple to understand with clear directions on who should be responsible to take which steps. If it's verbose or overtly technical without offering practical information, the likelihood of implementing the actions recommended is low, not necessarily due to a lack of concern but rather from confusion. Additionally, these records will be reviewed by regulatory authorities. The less confusion the records create in understanding what was done, what was observed, and what corrective actions were recommended, the better chance the regulatory authority will not be confused. And this will help to afford a seamless inspection for the clients we serve.

SECTION 3 – IPM

3.1 Collaboration

Collaboration between a pest management company and the staff of a restaurant is an essential component of a successful pest control program. Both parties must understand their roles and be willing to work together to prevent or solve pest related concerns. The inability to establish clearly defined responsibilities and perform to expectations will make success difficult to achieve.

The best time to outline expectations is during the initial inspection and sales process. During this period, the pest management company can evaluate site conditions and determine the level of cooperation they should expect from restaurant management. Communication procedures can be clarified, defined and outlined. This is especially important when there is a "key" account and no site management or staff is present during service. The final agreement should reflect, in

written form, the role each will perform.

It may be difficult to change the relationship with a restaurant that has an established pest control service. If it is determined that new pest management collaborative procedures should be implemented, a pest management company representative should meet with the decision maker to outline the concerns and solutions. The PMP can communicate with the site contact for initial issues but must escalate to decision maker if problem continues.

The pest management company should ensure that their technicians who service the restaurant:

- Are well trained and understand IPM principles.
- Know who the site contact is at the restaurant they must report to.
- Understand the procedures they must follow to report conditions at the site and understand the escalation of the conditions to upper management.
- Have the appropriate forms to document concerns.
- Inform their manager or supervisor promptly when they have not received cooperation from restaurant staff regarding the correction of reported concerns.

Techniques to ensure collaboration include:

- Written documentation of the service presented to the site contact after conclusion of the service. If possible, this should also include a verbal review.
- Showing the site contact the concerns that are present, explaining why they are a problem and offering possible solutions.
- Taking pictures of concerns and presenting them to the site contact. Ensure the client has given you written permission before taking photos.
- Developing a positive relationship with restaurant staff to assist with control efforts.
- Praising restaurant staff when they report a problem or assist with eliminating a problem.
- Providing a professional pest management service.
- Periodic Quality Assurance inspections by a pest management company representative. This includes regular reviews of service reports as they are submitted by the service technician to determine if they are being completed appropriately.
- If a pest problem develops, a pest management company representative should immediately inspect the site and meet with the site contact to determine corrective and preventative procedures.

3.2 Exterior Sanitation/Structure Survey

Prior to developing an integrated pest management program at each site, a thorough inspection must be made. Ask the facility contact about the history of the building as it might have been remodeled or modified, hiding valuable information to help resolve the pest problem. The exterior of the property should be inspected and the following observations (at a minimum) must be identified and documented using a diagram and/or notes:

- Areas of pest infestation based upon sightings, harborages, or other evidence including all areas of the building(s), including roof.

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- Areas of the property, including the roof, conducive to infestation such as cluttered areas, open trash, and standing water.
- Dumpsters which are not on rigid cleanable areas such as concrete pads. Dumpster location is conducive to attracting pests into the building.
- Open doors, holes, or gaps in building which could permit pest entry.
- Clutter or debris underneath load levelers at docks.
- Dock / delivery areas that have clutter or debris.
- Tall grass and vegetation on property, sidings, and adjacent to building.
- Perimeter areas of buildings having less than 24" of clearance.
- Neighboring properties which may have conditions conducive to pest infestation.
- Note areas that moisture will accumulate and attract pests to the building.
- Lighting around the building must be considered as a possible source of insects and a plan created to reduce the risk.

A summary of infestation observations and potential infestation areas and conditions must be documented and presented to the pest management contact of the facility.

3.3 Interior Sanitation/Structure Survey

All areas of the facility interior, including drop ceilings, and under booth seating, shall be surveyed for pests, and conditions which may lead to pest infestation. The following observations must be identified and documented using a diagram and / or notes:

- Open doors, gaps beneath doors, or other holes, gaps, or cracks which could permit pest entry or provide a harborage area.
- Drains should be inspected and monitored for cleanliness at each service.
- The practice of storing trash inside the building at night must be discussed and a plan created.
- Clutter, debris, or other potential pest harborage locations.
- Areas of pest infestation based on sightings, fecal deposits, harborage, or other evidence.
- Spillage or other potential food sources which could lead to infestation.
- Storage practices which are conducive to pest infestations.
- Inspect for open containers and products that don't move frequently for pest activity.

A summary of recommendations shall be provided to the pest management contact of the facility to reduce the likelihood of future infestations.

3.4 Rodent Program

3.4.1 Facility History

Prior to designing and implementing a rodent management program, a company representative shall interview facility contacts and review all available rodent history information, including, but not limited to:

- Previous rodent management efforts
- Pest management records
- Pest sighting data
- Building modifications and remodel information

3.4.2 Frequency of Service

Number, placement, and frequency of inspection of rodent devices must be based on an assessment of the items outlined in sections 3.2, 3.3, 3.4.1 including potential for infestation and facility history.

As a result of the initial inspection, examination of infestation history, and discussions with facility personnel, the potential for infestations should then be determined. Based upon the potential for infestation, the pest management program can be developed by the pest management company in cooperation with the facilities' management. If the facility is well sealed, and there is minimal chance of infestation by rodents, the potential of infestation is reduced. If contributing factors like exposed food material, potential entry points, or open doors on the building exterior, the potential for infestation is much higher.

Exterior Areas
Inspection frequency is based on the company's evaluation of the facility's rodent history and potential for infestation. Minimum frequency of exterior rodent inspection and service conducted on exterior rodent devices, if present, will be monthly. Should rodent activity occur, service frequency, if needed, will be increased.

Results of the rodent history and infestation potential analysis should be reviewed by and accepted by facility contact and may be reviewed and adjusted as necessary.

Interior Areas
Inspection frequency is based on the company's evaluation of the facility's rodent history and potential for infestation. Minimum frequency of interior rodent inspection and service on interior rodent devices, if present, will be monthly unless otherwise agreed upon with the customer.

3.4.3 Rodent Program – Rodent Inspection and Rodent Management Devices

Rodent inspection and proper placement of rodent management devices relies on a thorough assessment of the physical conditions of the facility and the presence of existing activity levels before an initial monitoring program can be established. Establishing proactive preventative rodent monitoring programs in retail/restaurant facilities is essential to prevent risk to food products and the health of consumers. Additionally, due to changing conditions, the program should be reviewed on a bi-annual basis to ensure the needs of the facility continue to be met.

It is recommended that record of service verification such as stickers, cards, or bar codes shall be on the inside of all monitoring devices, requiring the device to be opened to record data or to scan.

All local, state, and federal regulations, along with any client specific corporate policies regarding rodenticide baits must be followed regarding the rodent program. If it is not possible to install rodenticide bait stations in secure areas, glue boards, snap traps or other mechanical traps may be used inside of locked and anchored stations. Monitoring stations may also be used with a non-toxic bait.

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Exterior Rodent Management Devices

Based upon target species, mechanical devices and/or tamper resistant bait stations should be installed in locations based on the risks identified through the assessment. Conditions identified with likely risk of rodent activity on the exterior, require devices to be placed in locations likely to intercept the target rodent. Every effort must be made to work with the facility to eliminate conditions likely to attract rodents to the facility or provide access into the facility. All monitoring device placements must be accordance with local, state, and federal requirements.

It is suggested that, at a minimum, an initial placement be made within 15 feet of any dumpster or compactor. Rodenticide labels also mandate that placements must be within 100 feet of man-made structures.

Interior Rodent Management Devices

Based upon the facility assessment and evidence of rodent activity, rodent monitoring devices appropriate for the species present should be installed in appropriate locations and numbers to protect the food product from contamination. Every effort should be made to identify and eliminate conditions encouraging rodent activity within the facility.

Based upon facility assessment and evidence of rodent activity, if it is determined that monitoring devices are not required, a visual inspection for evidence of rodent activity should be conducted monthly unless otherwise agreed upon with the customer.

3.4.4 Rodent Monitoring

Devices should be opened and inspected for activity, cleaned, and the results documented as outlined in the Recordkeeping section at each service. Visual observations of evidence and conducive conditions must be documented at each service. Damaged devices will be documented and replaced at the time of service or at the earliest possible time based upon client's requirements. At a minimum, exposed rodent bait, or rodent bait in a damaged device, must be removed from the grounds. Rodents must be disposed of offsite according to facility and company policy. Rodents, droppings, and any urine deposits or residue must be handled using protective equipment per company policy.

Adjustments to the program based upon observations may be made at any time with the approval of the client. Use of "temporary" program changes are acceptable if the client's policies allow such changes. All traps, bait stations, and other devices must be opened and inspected. Observations must be recorded as outlined in the Recordkeeping section.

3.4.5 Rodent Remote Electronic Monitoring Technology

Remote electronic monitoring technology for pest management devices provide an opportunity to use advancements in technology to improve the overall efficiency and effectiveness of pest management activities. As the technology evolves, science based reviews of the system confirm its value and customer acceptance expands; the devices should become an accepted tool. The structural pest management industry embraces proven advances in technology providing more effective and efficient IPM systems to meet our customer needs.

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Remote electronic monitoring devices will be able to signal an event notification to the pest management provider and/or client. This type of information flow, if supported by accurate data, may enable pest management companies to redirect their efforts to other pest management actions. It is our belief that as the pest management industry gains more experience with this technology and the equipment is refined; it will permit greater flexibility in our ability to focus on the special pest management needs of a particular site.

Pest management companies will need to determine on a case by case basis how often these devices need to be manually checked to maintain their functionality as part of the food safety program.

3.5 Insect Program

3.5.1 Inspection

A thorough inspection shall be conducted of the exterior of the building including delivery areas, receiving docks, load levelers, waste disposal, entrances, roof areas, exterior storage areas, and windows. A periodic inspection of the roof is also recommended to identify conducive conditions or pest activity.

A thorough inspection of the accessible components of the facility shall be conducted not less than monthly, unless otherwise agreed upon with the customer. The areas to be inspected include, but are not limited to, floor/wall junctures, drop ceilings, equipment, food preparation areas, serving lines, dishwashing, storage areas and racking, offices, locker rooms, windows, entryways, bar area, and dining area.

In the course of the inspection, maintenance, and sanitation issues such as, but not limited to, holes in walls, pipe chases, spilled food items, debris in floor drains, or open doors/windows shall be noted. Recommendations shall be made to the facility to reduce chances of future infestation.

A summary of infestation observations, potential infestations, and recommendations for pest prevention shall be recorded as outlined in the Recordkeeping section.

3.5.2 Action Thresholds and Corrective Actions

Corrective action will be taken, when appropriate, based on inspection, monitoring data and trend analysis in accordance with thresholds developed by the company in partnership with the facility.

3.5.3 Mechanical Control Methods

Determining the entry point and/or the source of the pest is necessary in developing a control/management program. Improving sanitation, and mechanical alteration such as the sealing of cracks, repairing door gaskets, or self-closing doors, will be necessary.

3.5.4 Pesticide/Product Use

In the event it is necessary to apply a pesticide product to help manage insects, the product shall be appropriately labeled for the intended use and site. These products may be residual, non-residual or non-regulated/exempt products

Determine if the client has an approved pest management product list. If they do, then use only products on the list at the facility.

Space treatment may be used to reduce adult populations. This may also include the use of insect growth regulators (IGR).

General applications may be used only if the use of the product will not contaminate the food product.

Insect bait stations may be used in areas not prone to heavy traffic or water accumulation.

Treatment of electrical panels and boxes must be done with extreme care per the label and liquids should not be used.

All pesticide products must be used according to label instructions.

3.5.5 Insect Light Traps and Other Flying Insect Traps

Insect light traps (ILTs) may be installed to monitor and manage certain flying insects and to be used as a part of the decision-making process for adjusting the program and identify client practices which lead to conducive conditions. Placement must be according to manufacturer's instructions and in compliance with any regulatory policies and guidelines. In the absence of instructions, ILTs should be placed in such a manner that will maximize insect capture without:
- interfering with facility operations
- being visible from the exterior
- being likely to attract insects to open food
- will not allow any insects from falling onto open food or food contact surface

Observations must be recorded as outlined in the Recordkeeping section.

Findings and seasonal requirements will dictate frequency of inspection as determined by the company. Insect light traps must be monitored based upon the contract.

The type of ILT to use should be determined by the area of the facility, regulation, and customer policy.

The trap must be cleaned in a manner that does not compromise food safety.

Trapped insects must be examined and should be categorized according to:
- Stored product insects
- Structure infesting flies
- Other flying insects

The technician should determine if the types and numbers of insects exceed pre-established action threshold levels, and if so, then the insect management program should be modified to address the issue.

Bulbs in ILTs must be changed in accordance to manufacturer's recommendations or, in the absence of manufacturer's recommendations annually. Shatter protection must be in place where food or packaging may become contaminated by glass.

Glue board style ILTs must have glue boards replaced when the glue loses tackiness, or the number of insects caught exceeds the pre-established threshold levels. This replacement threshold should be determined with facility management as part of the pest management plan.

3.6 Birds and Wildlife

Prior to the implementation of any bird or wildlife control program, consult local, state and federal laws and regulations regarding nuisance wildlife control.

Birds and wildlife can enter facilities or facility areas and create contamination or potential contamination hazards.

In the course of the inspection, maintenance issues such as, but not limited to, holes in walls, spilled food items, open dumpsters, or open doors/windows shall be noted. Recommendations shall be made to the facility to reduce chances of future infestation.

3.6.1 Bird Prevention and Management

Areas susceptible to infestation by birds shall be called to the attention of the facility contact. If the facility approves, bird prevention measures may be installed. These shall be any type of wire, net, device, or material to prevent roosting.

Any interior bird removal shall be performed in accordance with local, state and federal laws and regulations. Use of protective gear shall be required for removal of nests and/or droppings.

Facilities should be encouraged to eliminate favorable conditions for bird infestation and observations by the technician shall be recorded as outlined in the Recordkeeping section.

3.7 Wildlife Prevention and Management

Areas susceptible to infestation by wildlife shall be called to the attention of the facility contact. If the facility approves, wildlife prevention measures may be installed. These shall be any type of wire, net, device, or material to prevent entry, nesting, and or roosting. This is usually beyond the scope of the original contract and a separate contract should be developed.

Any miscellaneous animal removal shall be by trapping and removal in accordance with local regulations.

Facilities should be encouraged to eliminate favorable conditions for wildlife infestation and observations by the technician shall be recorded as outlined in the Recordkeeping section.

3.8 Vegetation Management

Vegetation should not be planted against the exterior buildings or touching any walls or foundation that could act as a bridge for pests to gain access to indoors. An inspection band and clear zone adjacent to the building should be encouraged as part of the periodic audit. If the company performs weed management, ideally a vegetation free clear zone should be maintained.

This item shall be checked as part of the normal inspection process during pest management service regardless of whether the company performs weed management. Any vegetation around the building should be called to the attention of the facility contact to reduce the chances of infestation. Certain types of vegetation/plantings may be more susceptible to pest harborage. These may be noted during the inspection.

3.9 Pest Management Survey

At least quarterly, or at the discretion of the client, the pest management company shall perform an inspection to identify pests and the potential for infestation. Building maintenance, employee practices, physical conditions of the facility, incoming materials, and pest management recordkeeping should also be regularly reviewed. Recommendations shall be presented to the facility contact based upon the inspection and review.

3.10 Restaurant Pest Vulnerable Zones

The **front of house**, or dining and take-out areas, are important to inspect as the guest of the location is likely to see the pests while waiting for a take-out order or while seated waiting for their meal. The restaurant point of contact will most likely be extremely concerned with these areas because the presence of pests can cause guests to complain or even result in lost business and/or money.

Places to concentrate your inspection for the front of house:
1. Order stations
2. Seating for take-out clients
3. Booth seats and customer eating areas
5. Bar area
6. Children playground area or video games area
7. Ceiling void
8. Potted plants

The **back of house**, or kitchen, is important as raw ingredients, storage facilities, staff, deliveries and loading dock areas could be entry points for a pest to move into the building. Pests in these areas are also of major concern while food is being prepared and cooked. Some of the areas listed below are very important to inspect for food accumulation and sanitation issues.

Places to concentrate your inspection for the back of house:
1. Dish washing area
2. Prep line areas
3. Cook lines
4. Meal assembly area

5. Janitor / mop closet area
6. Staff locker area
7. Ceiling void
8. Ingredient storage area
9. Drains
10. Drive thru area

It is also important to understand the trash removal practices in the facility. For instance, many food service locations do not let staff remove trash after dark due to safety concerns, which you must accommodate, but be aware that garbage may be sitting out for long periods of time over night.

Common Pests of Restaurants

Pest	Environmental Preferences	Areas of entry or concern
German Cockroach	Areas of warmth and humidity. Prefer residing in cracks and crevices and voids. Nocturnal	Proofers, ovens, soup kettles, dishwashing areas, steam tables. Can enter with incoming goods or with employees.
American Cockroach	Sewers, basements and drains in north. Exterior in south.	Sump pumps, floor drains and basements. Can enter through poorly sealed doors or other openings in building.
Filth Flies (house flies and bottle or blow flies)	Eggs laid in garbage, manure or carcasses. Adults rest in areas free of air movement.	Attracted to refuse handling areas, exterior eating areas, can come in through drive thru windows and doors which are left open or not insect proofed.
Ants	Dependent on species. Moisture can contribute to issues. Can nest in soil, moisture damaged wood or voids.	Enter through exterior doors or other openings. Can be brought in on plants or incoming goods.
Small Flies	Moist organic material	Trash receptacles, dumpsters, areas where there is floor deterioration, floor drains, garbage disposal units, potato peeling units, mop sinks
House Mouse	Areas of quiet and warmth around equipment motors and ovens	Receiving doors, incoming shipments, entry ways
Roof Rat	Undisturbed areas, roofs, trees but can be soil.	Poorly sealed overhangs, roof areas
Norway Rat	Prefer soil contact but will nest in wall	Receiving doors, entry ways

Terminology for Restaurant Equipment and Structural Components

Knowing the terms used by restauranteurs is important in effectively communicating with a client. It can also provide keys to what pests may be associated with the equipment when we understand what the equipment is used for and its design. Utilize this chart to help familiarize yourself with the various elements of the restaurant.

Type of Equipment	Purpose	Common Pests Associated with area
Dishwashing Area		
Three Compartment Sink	Cleaning and Sanitizing Cooking and Serving Tools	German cockroaches, Small Flies
Dishwashing Unit	Cleaning and sanitizing dishes, utensils and glassware	German cockroaches Small flies
Grease Trap/ Interceptor	Device to intercept grease and solids prior to waste water moving into sewer system	Small flies Cockroaches
Garbage Disposal Unit	Device used to shred solid food particles into small pieces to travel into waste water stream	Small Flies
Channel (Trench) Drain	Long rectangular drain used for the rapid evacuation of water.	Small Flies Cockroaches
Mop Sink	Area where mops and cleaning supplies are stored.	Small flies
Food Preparation Areas		
Hand wash sink	Small sink designated for use by staff for washing hands.	Cockroaches
Prep Sink	Sink used for washing foods for serving and cooking	Cockroaches Small flies
Proofer	Warming unit for promoting fermentation and rising of dough	German cockroaches, mice in vicinity
Ovens	Used for baking/ cooking of foods	German cockroaches
Soup Kettles	Used for cooking large batch soups	German cockroaches
Walk in Cooler	Unit designed for refrigerating foods where employees can walk inside.	German cockroaches, mice primarily inside insulated envelop our housing to unit.
Walk in Freezer	Refrigeration unit designed for freezing foods which employees can walk inside.	German cockroaches, mice primarily inside insulated envelop our housing to unit
Reach in Cooler	Used to refrigerate foods which the employee reaches in to retrieve food	Cockroaches Small flies
Retarder	Equipment which both allows for refrigeration of dough and proofing.	Cockroaches Mice in vicinity

Thermalizer	Equipment which can be used for holding food to maintain serving temperature or for re-heating food.	Cockroaches
Steam Table	Table which uses hot water to keep food at proper serving temperatures	Cockroaches Small flies
Grill	Flat grill used for cooking	Cockroaches
Fryer	Equipment used for frying foods	Cockroaches
Floor Mixer	Large mixer which sits on the floor	Stored product pests Cockroaches
Prep Table	Table used for preparing and assembling food	Cockroaches
Cooks Line	Area where food is cooked	Cockroaches Mice
Prep Line	Areas of assembling food prior to cooking	Cockroaches Small flies
Back of the House (BOH) Drink Stations	Area for dispensing drinks such as coffee, tea and pop.	Small flies Cockroaches Ants
Boxed Drink Syrup Storage	Area where boxed drink syrups are stored and connected to drink dispensing machines.	Ants Cockroaches Small Flies
Small Appliances (toaster, microwaves, coffee urns, mini-grillers…)	Assorted functions	Cockroaches
Pantry/ Dry Storage	Areas where dry goods are stored without refrigeration.	Stored Product Pests Mice
Ingredient Bins	Lidded carts on wheels used for storage of bulk ingredients like sugar and flour	Stored Product Pests
Food Serving Areas		
Front Counter	Counter used primarily in quick serve restaurants for taking orders and serving food.	Cockroaches Filth Flies Mice
Serve Line	Area where wait staff pick up food	Cockroaches Filth Flies

		Small Flies
Dining Room	Area where food is served and consumed by guests.	Cockroaches Filth Flies Rodents Ants Small Flies
Front of House (FOH) Drink Stations	Area where drinks are dispensed.	Small Flies Ants Cockroaches
Server Stations	Area utilized by wait staff to process orders and store supplies.	Small Flies Cockroaches
Drive Thru Window	Area for order taking and delivery for drive thru guests.	Filth Flies Ants Cockroaches Small Flies
Exterior eating Areas	Exterior dining areas for patrons.	Ants Filth Flies Mice Rats
Miscellaneous		
Offices	Office space for chef and other restaurant staff	Ants Cockroaches Mice
Restrooms	Guest facilities	Small Flies
Employee Lockers/ Break rooms	Areas where employees store personal belongings and take breaks	Cockroaches Mice Bed Bugs