

Child-Serving Facility IPM Logbook



Facility Name: _____

Facility Address: _____

Directions for Using the IPM Logbook

Maintaining a logbook facilitates communication among IPM participants. Good record keeping is essential if the IPM program is to run smoothly and helps in evaluating the program. Here is where interested parties can both record and find information.

- **Pest sighting log** - This is the place to record where and when pests were sighted. Be specific; indicate the type, number and any damage that was done. The pest control technician can look at the logbook, investigate the situation and treat or make suggestions to correct conditions that are contributing to the problem. A structural repair form, included in this section of the logbook, alerts the maintenance staff about repairs that are needed. Both the pest sighting log and the structural repair form have a place to note what action has been taken and when.
- **Inspection forms** - At the beginning of the school year, it is a good practice to inspect the school to see what repairs are needed to correct pest-conducive conditions such as leaky pipes or pipe penetrations that need to be sealed. The inspection checklist helps to remind IPM participants that sanitation and exclusion are key to preventing pests.
- **Maps** - Monitoring for pests with sticky traps detects hot spots and is a valuable tool in determining the effectiveness of treatment. Traps collect dust and debris and have to be replaced periodically. Dating and numbering traps and placing their location on a map allows someone other than the person who originally placed the traps to check them.
- **Pesticide application records** - State laws require for each application of a pesticide that the name and certification number of the applicator; the name of and the amount of the product applied, the active ingredient in the product and its percentage; the location and time of the application; and the target organism for which the product was applied be recorded.. Records must be kept for two years.
- **Time log** - The pest control technician records the time span and date of visits on this log sheet.
- **Labels and MSDS** - This section of the logbook contains copies of all labels and material safety data sheets (MSDS) for the pesticides used by the pest control technician. Anyone having questions about the products can refer to these materials for information.
- **Policy and plans** - IPM policy is a commitment to manage pests using a variety of methods such as sanitation and exclusion and treating only when the pest or evidence of the pest is present. Plans include the thresholds that trigger action and the strategies for pest management. Policies and plans will vary according to the standards each school system chooses to adopt. Examples of policies, plans and pest thresholds can be found at schoolipm.utk.edu.
- **Newsletters** - Refer to this section for timely information on preventing and controlling pests in the school environment.

**Pest
Sighting &
Structural
Repair
Logs**

Inspection Forms

Checklist Inspection Guide for Child-serving Facility Accounts

Client Name _____

Date _____

Address _____

Phone _____

Date of Previous Inspection _____

Inspector _____

Signature of Client Upon Inspection Completion _____

Signature of Inspector Upon Inspection Completion _____

EXTERIOR AREAS	Yes	No	NA	Comments
1. Landscaping well maintained? (Shrubs, trees not overgrown, weeds or other plants not in contact with the structure)?				
2. Is any wood stored directly next to the foundation?				
3. Foundation area free of clutter or trash?				
4. Drainage system functioning properly, rain gutters clear and free of debris?				
5. All ventilation vents in good repair?				
6. Window wells clean?				
7. Bird feeders well maintained?				
8. Roof areas well maintained?				
9. Chimney capped to deny wildlife?				
10. Mulch touching the foundation of the home?				
11. All doors and windows pest-proof?				
12. Any wood in contact with the ground?				
13. Crawlspace access tight to deny pest entry?				
14. Foundation walls/slabs in good repair?				
15. Trash areas clean and well maintained to deny pest access or breeding?				
16. All pipe and utility line penetrations and thresholds well sealed?				
17. List of exterior pests located during the inspection or as reported by client?				
INTERIOR AREAS				
Food Storage				
1. Dried food properly stored?				
2. Storage containers clean?				
3. Damaged/spoiled food found and removed?				
4. Refrigerated areas clean?				
5. Overall good sanitation including underneath and behind storage areas?				
6. Other:				

Food Preparation/Distribution Areas Clean?	Yes	No	NA	Comments
1. All food preparation surfaces				
2. Food serving areas				
3. Appliances/equipment around (underneath and behind)				
4. Other:				
Other Kitchen Areas Clean?				
1. Dishwashing areas				
2. Garbage/trash areas				
3. Tray return area				
4. Storage area for pots/pans/plates, etc.				
5. Other:				
Utility Areas and Bathrooms Clean?				
1. Sinks and waterclosets				
2. Custodian's closet/work area				
3. Other:				
Lunchroom Area Clean?				
1. Tables/chairs				
2. Office areas				
3. Vending machine area				
4. Other:				
Other Building Interior Properly Cleaned/Maintained?				
1. Walls				
2. Floors				
3. Ceilings/suspended ceilings free of debris				
4. Floor drains				
5. Lighting				
6. Ventilation/Air Handling equip.				
7. All water pipes in kitchen, bath, and utility areas in good repair, not leaking and edges sealed?				
8. Other:				
Recommendations to employees to aid in pest prevention:				

SCHOOL IPM 2015 Inspection Checklist for Demonstration projects

1. School name & district:

2. Audit Participants:

3. School site details (names, phone numbers, and/or e-mails):

- Principal: _____
- Age of School: _____
- Area (ft²): _____
- Number of students: _____
- Director of Operations: _____
- IPM Specialist: _____
- Building Manager: _____
- Grounds Supervisor: _____
- Number of custodians: _____
- Contractual custodian Supervisor (if applicable) _____
- Kitchen manager: _____
- School nurse: _____
- Pest Management Company: _____
- Waste Management: _____
- Perceived pests: _____
- Observed pests: _____

- Information and/or workorder systems: _____
- IPM Issues in a district newsletter or email system: _____
How do you distribute the IPM Newsletter?

At a glance assessment - Key questions indicating an IPM program is in progress

- | | |
|--|-----|
| Do you have an IPM coordinator? | Y N |
| Do you have an IPM policy? | Y N |
| Do you have an IPM committee? | Y N |
| Are you a member of a state IPM coalition? | Y N |
| Do you apply scheduled pesticide treatments? | Y N |
| Do you have an inspection schedule? | Y N |
| Do you have a monitoring program? | Y N |
| Approximate number of monitors in place _____ | |
| Do you use pest sighting logs? | Y N |
| Do you provide continuing education regarding pest issues? | Y N |
| Does your campus cook and prepare food on a daily basis | Y N |

Graded IPM Inspection Check List

When you inspect each item on the checklist, place a mark in the appropriate box for each deficiency. Add the total points for each inspection area. Add the totals for Exterior and Interior inspection areas, add the two sections together, and then divide by the total amount of points (500) to get a final score:

0	Starting Score
	Add points for all exterior
	Final Score
	Campus Total Score
	Final Perfect Score (500)

0	Starting Score
	Add points for all interior
	Final Score
	Take final scores divide by 500 to get final percentage rank

< 69 = Unsatisfactory; 70-79 = Average; 80-89 = Above average; 90-100 = Excellent

EXTERIOR

Exterior Garbage Areas

In your score please consider the following features

Grade

1= poor

5 = excellent

Dumpsters sealed properly or with tightly fitting lids	
Dumpsters located adequate distance from doors	
Dumpsters on pest-proof pavement	
Area around dumpsters free from spillage	
Outdoor trash receptacles are self closing (i.e. do they have lids)	
Total	

Notes:

Pest Evidence in Exterior Garbage Areas

In your score please consider the following features

Grade

1= poor

5 = excellent

Evidence of Ants <i>(will depend on distance to dumpster to building if this can be an issue)</i>	
Evidence of Rodents	
Evidence of Cockroaches	
Evidence of Flies	
Evidence of Bees/Wasps	
Evidence of Other Pests	
Total	

Notes:

EXTERIOR (Continued)

Exterior Landscaping

In your score please consider the following features

Grade
1= poor
5 = excellent

Adequate visibility between plantings and buildings (18 inches)	
Building free from direct contact with trees	
Building free from direct contact with shrubs/vines	
Building free of limbs overhanging roof	
Total	

Notes:

Exterior Building Features

In your score please consider the following features

Note doors and windows will be reviewed twice – look for outside evidence here

Grade
1= poor
5 = excellent

Doors sealed tightly – weather-stripping/door-sweeps are in place	
Windows and vents are screened or filtered	
Plumbing and electrical penetrations are properly sealed	
Walls-roof line free of cracks/openings	
Air ventilation intakes screened, unobstructed	
Adequate water drainage around foundation	
Awnings, breezeways, and other overhang structures free from bird nests	
Soil line below building siding or foundation or other conditions conducive to termites (for wood structures is there too much mulch, etc)	
Gutters cleared of debris	
Total	

Notes:

Pest Evidence Around Exterior

In your score please consider the following features

Grade
1= poor
5 = excellent

Evidence of Rodents	
Evidence of Other Pests (vertebrates, birds, bats, etc)	
Evidence of Bees/Wasps	
Evidence of termites, termite tubes	
Total	

Notes:

INTERIOR KITCHEN AND FOOD AREAS

Food Preparation Area Ceiling, Walls and Floor

In your score please consider the following features

Grade

1= poor

5 = excellent

Ceiling tiles are in good condition (no openings or missing tiles)	
No signs of roof leaks (stained ceiling tiles or walls)	
Interior walls are free from cracks and crevices	
Plumbing and electrical penetrations are properly sealed	
Permanent bulletin boards, mirrors, electrical boxes and other wall fixtures in food preparation and serving areas are caulked	
Floors are clean (free of spillage) by end of day, especially under food prep and serving areas	
Floor and sink drains are clean and traps are kept full of water	
Interior food prep doors are sealed tightly, no daylight showing through bottom	
Dock receiving door is sealed – no daylight showing under door	
Total	

Notes:

Food Preparation Area Appliances, Equipment and Furniture

In your score please consider the following features

Grade

1= poor

5 = excellent

Surfaces in food preparation and serving areas are regularly free of grease deposits	
Kitchen appliances and fixtures are of pest-resistant design (i.e. shelving with open areas, stainless steel, no wood)	
Vending machines are clean inside and out	
Cafeteria furniture does not provide pest harborage (e.g. metal tube frames are sealed, upholstered furniture not present)	
Food prep areas are free of cardboard (even storage shelves)	
Trash cans are clean and lined with trash bags, daily	
Is there evidence of pest monitoring throughout the kitchen area	
Total	

Notes:

Pest Evidence in Food Prep Area

In your score please observe & consider the following pests

Grade

1= poor

5 = excellent

Evidence of Rodents	
Evidence of Roaches	
Evidence of Ants	
Evidence of Flies	
Evidence of Other Nuisance Pests (stored product pests, etc.)	
Total	

INTERIOR KITCHEN, CAFETERIA & FOOD AREAS

(Continued)

Food and Product Storage Areas

In your score please consider the following features

Grade

1= poor

5 = excellent

Ceiling tiles are in good condition (no openings or tiles missing)	
No signs of roof leaks (stained ceiling tiles or walls)	
Interior walls are free from cracks and crevices	
Plumbing and electrical penetrations are properly sealed	
Floors are clean (free of spillage) by end of day, especially under storage areas	
Floor and sink drains are clean and traps are kept full of water	
Bulk stored products are stored on open wire racks and not in original cardboard shipping containers	
Food items are stored in tightly closed containers overnight (e.g. bread, cookies, flour, etc.)	
Inspection aisles ($\geq 6''$) are maintained around bulk stored products	
Mops and mop buckets are properly dried and stored (e.g. mops hung upside down, buckets emptied)	
Total	

Notes:

Pest Evidence in Food and Product Storage Areas

In your score please observe & consider the following pests

Grade

1= poor

5 = excellent

Evidence of Rodents	
Evidence of Roaches	
Evidence of Ants	
Evidence of Other Pests (<i>flies, stored product pests, etc</i>)	
Total	

Cafeteria Area *(If this campus is also used as auditorium be sure to check under and behind the stage)*

In your score please consider the following features

Grade

1= poor

5 = excellent

Surfaces in cafeteria are cleaned regularly	
Fixtures are of pest-resistant design (i.e. shelving with open areas, stainless steel, no wood) <i>(If school has afterschool program be sure to check this area)</i>	
Vending machines are clean inside and out	
Cafeteria furniture does not provide pest harborage (e.g. metal tube frames are sealed, upholstered furniture not present)	
Ceiling tiles are in good condition (no openings or missing tiles)	
Trash cans are clean and lined with trash bags, daily	
Custodial closet - Mops and mop buckets are properly dried and stored	
Total	

Notes:

INTERIOR GENERAL

Teacher Lounges

In your score consider the following features

If campus has more than one lounge area – lump all together

Grade

1= poor

5 = excellent

Teachers lounge cleaned daily	
Refrigerators, microwaves, and food storage located in teachers lounge cleaned at least monthly	
Permanent bulletin boards, mirrors, electrical boxes and other wall fixtures in food preparation and serving areas are caulked	
Food items are kept in locked storage containers free from pests	
Restrooms are free from water leaks and are cleaned daily	
Floor and sink drains are clean and traps are kept full of water	
Trash cans are cleaned daily and double lined with trash bags	
Total	

Notes:

Pest Evidence in Teacher Lounge Areas

In your score please observe & consider the following pests

Grade

1= poor

5 = excellent

Evidence of Rodents	
Evidence of Roaches	
Evidence of Ants	
Evidence of Flies	
Evidence of Other Pests	
Total	

Notes:

Classrooms and Other Interior Areas

In your score consider the following features

Grade

1= poor

5 = excellent

Interior (vestibule) doors sealed tightly	
Interior walls, that form the exterior of the building, are free from cracks and crevices	
Ceiling plenums are accessible and are free of pest activity	
Ceiling tiles are in good repair (no chips, holes or other entry points)	
Classrooms free from clutter	
Classrooms free from food (<i>Food, if present, kept in pest resistant containers</i>)	
Indoor trash cans are clean and double lined with trash bags	
Storage closets (including janitorial) cleaned periodically and free from standing water	
Restrooms free from water leaks	

Restrooms are cleaned daily	
Refrigerators, microwaves, and coffee pots in classrooms, free of debris, food and other attractants to pests	
Pets in classrooms – are cages cleaned weekly	
Pets in classrooms - food items are kept in locked storage containers free from pests	
Pets in classrooms – area around cages are kept clean and tidy	
Total	

Notes:

Pest Evidence in Classrooms and Other Interior Areas

In your score please observe & consider the following pests

Grade

1= poor

5 = excellent

Evidence of Rodents	
Evidence of Roaches	
Evidence of Ants	
Evidence of Flies	
Evidence of Other Pests	
Total	

Notes:

Additional Comments:

School IPM Inspection Checklist

School Name: _____

Name of Inspector: _____

Exterior Areas					
Building features	OK	Needs Work	N/A	Location	Comments
Doors sealed tightly – weather-stripping/door-sweeps are in place					
Windows and vents are screened or filtered					
Building eaves, walls, gutters and roofs are sound					
Cracks in walls, plumbing and electrical penetrations are properly sealed					
Adequate water drainage around foundation					
Awnings, breezeways, and other overhang structures free from bird nests					
Surplus items stored away from building					
Landscaping	OK	Needs Work	N/A	Location	Comments
Adequate visibility between plantings and buildings (18 inches)					
Building free from direct contact with trees, shrubs, and vines					
Building free of limbs overhanging roof					
Dumpster and trash collection	OK	Needs Work	N/A	Location	Comments
Dumpsters /trash cans sealed properly or with tightly fitting lids					
Dumpsters located adequate distance from doors- 50 ft.					
Dumpsters on well-drained surface-concrete, asphalt, gravel					
Area around dumpsters free from spillage					
All waste is sealed in plastic bags before disposal					
Grease trap emptied routinely; area around it clean					

Interior Areas					
Kitchen/Cafeteria	OK	Needs Work	N/A	Location	Comments
Ceiling tiles are in good condition (no openings or missing tiles, no evidence of leaks)					
Interior walls are free from cracks and crevices					
Plumbing and electrical penetrations are properly sealed					
Plumbing is kept in good repair (no leaking faucets or pipes)					
Permanent bulletin boards, mirrors, electrical boxes and other wall fixtures in food preparation and serving areas are caulked					
Surfaces in food preparation and serving areas are regularly cleaned of grease deposits					
Floors are clean (free of spillage) by end of day, especially under food prep and serving areas					
Floor and sink drains are clean and traps are kept full of water					
No standing water in sinks or steam tables overnight					
All surfaces, trays, dishes cleaned and dried by end of day					
Trash cans are clean and lined with trash bags, daily					
Is there evidence of pest monitoring throughout the kitchen area?					
Bulk stored products are stored on open wire racks and not in original cardboard shipping containers					
Stored products rotated on "first in first out" basis					
Inspection aisles ($\geq 6"$) are maintained around bulk stored products					
Packaging and shipping materials are promptly removed from food storage areas					
Food items are stored in tightly closed containers overnight (e.g. bread, cookies, flour, etc.)					

Kitchen/Cafeteria continued	OK	Needs Work	N/A	Location	Comments
Cafeteria furniture does not provide pest harborage (e.g. metal tube frames are sealed, upholstered furniture not present)					
Vending machines are clean inside and out					
Mops and mop buckets are properly dried and stored (e.g. mops hung upside down, buckets emptied)					
Recycling					
Recycling bins-lined with plastic garbage bags, cleaned and emptied frequently?					
Concession Area					
Inspected often, kept clean, well sealed, monitored for pests					
Food stored in pest-proof containers					
Teachers Lounge					
Teachers lounge cleaned daily					
Refrigerators, microwaves located in teachers lounge cleaned at least monthly					
Food items are kept in pest-proof containers					
Plumbing in good repair; pipe penetrations sealed					
Permanent bulletin boards, mirrors, electrical boxes and other wall fixtures caulked					
Culinary Arts Classrooms					
All surfaces, equipment, dishes cleaned, freed of grease, and dried by end of day					
Floors are clean (free of spillage) by end of day, especially under food prep area					
Plumbing is kept in good repair (no leaking faucets or pipes; pipe penetrations sealed)					
Food items are kept in pest-proof containers					

Trash cans are cleaned daily and double-lined with trash bags					
Is there evidence of pest monitoring throughout the kitchen area?					

Classrooms/ Hallways/Offices					
Ceiling tiles are in good condition (no openings or missing tiles, no evidence of leaks)					
Interior walls are free from cracks and crevices					
Ceiling plenums are accessible and are free of pest activity					
Floor in good repair; cleaned regularly					
Classrooms free from clutter					
Classrooms free from food (<i>Food, if present, kept in pest resistant containers</i>)					
Trash cans are clean and lined with trash bags, daily					
Rest Rooms					
Wall/Floor tiles in good condition/no cracks					
Bathrooms, urinals, and sinks sanitary and clean?					
No signs of insect infestation around soap and towel dispensers					
Sinks & faucets in good repair; pipe penetrations sealed					

Sources:

http://www.maine.gov/agriculture/pesticides/schoolipm/docs/school-ipm-checklists_pp15-62.pdf

<http://schoolipm.ncsu.edu/resources.htm>

IPM in schools inspection checklist for PRIA ([School Demonstration Inspection Form](#))

<http://schoolipm.utk.edu/SchoolIPMsite/wwwroot/School%20Sample%20Site/GettingStartedSchool.htm>

**Maps of Facility
&
Monitoring Station
Location Log**

**Download
Monitoring Directions
from**

[http://www.extension.org/pages/School_Integrated
_Pest_Management:_Monitoring](http://www.extension.org/pages/School_Integrated_Pest_Management:_Monitoring)

School Integrated Pest Management: Monitoring

Last Updated: May 20, 2009

Introduction

One important component of pest identification is monitoring. An organism should not be considered a pest until it is proven to be one, and this can be done through monitoring. Monitoring will allow you to pinpoint where the pest problems are, and when they are occurring.

Monitoring will also provide you specimens so the pest can be identified. When monitoring, it is important to keep records. Records will help you to see patterns, and will help you to solve reoccurring pest problems. With monitoring, you can determine if the pest population is declining or growing. You can determine the life stage of the pest, you can look for natural enemies, and you can determine the amount of pest damage.



Cockroach Monitoring Station

Hearsay or casual reports of pests are not particularly helpful. They may guide you to places that need monitoring, but they don't provide you with the accurate information you need. You are the professional, the diagnostician, and you have to gather the appropriate data before you take action. Monitoring is a crucial part of that information. Information gathered during monitoring should always be written down in a monitoring log.

Monitoring involves problem solving, ongoing inspection and observation (this may include monitoring at different times of the day or night), and communication with other professionals. It helps if you can coordinate your monitoring with routine maintenance activities. As you go about your daily job, be sure to jot down notes about pests in monitoring stations and other problems you see. You can then return to that area and place or replace monitoring stations or can put in a work order to get an area sealed or a leak fixed.

There are certain areas that consistently harbor pests. These are known as pest vulnerable areas or PVAs. To reduce pests in schools, you must reduce pest conducive conditions. These conditions are often found to be PVAs. These are areas that have the things a pest needs for survival such as food, water and harborage. Once an infestation is identified through monitoring, measures can be taken to reduce the infestation including, exclusion, reduction of food, water and harborage, and the judicious use of pesticides, usually in a targeted bait application.

By using integrated pest management principles, we can reduce the number of pests as well as maintain a healthy learning environment. By continual monitoring, you will gain knowledge about your pest situation. You can evaluate the effectiveness of your treatment and see if any adjustments need to be made.

When monitoring, you should look for and document pest conducive conditions (leaky pipes, clutter including excessive cardboard, unsealed foods including foods used in art classes, access points like uncovered vents, or unsealed holes, live pests, pest droppings, and pest damage.

General Information

General Information: Monitors should be placed on the floor against walls and/or on window ledges. If monitors are likely to be moved, use the double sided tape to fasten the monitor in place. If monitors are not catching pests, think about how the pests may be entering and re-locate the monitor to a more suitable location. Don't forget to use other structural elements as monitors. Window ledges, floor drains, light coverings, and spider webbing all serve to help you monitor for pests. Monitoring stations should not be stored alongside volatile pesticides.

Things to Remember When Placing Monitors

1. Monitors should be placed in all pest vulnerable areas (PVAs) and hot spots.
2. Monitors should be placed against a wall and/or on a window ledge. Secluded corners are often good spots.
3. Monitors should be placed out of the way of people or activities.
4. All monitors should have a placement date and number.
5. Monitor placement should be documented in case someone else has to retrieve them.
6. Monitor locations should cover the site well. Use too many as opposed to too few.
7. Place traps near to persistent pest conducive conditions (PCCs). This can document the effect of the PCC so a maintenance or repair order can be placed.
8. Monitors should be re-locatable so you can target the pest.
9. If monitors are placed in a classroom, the teacher should be informed of its purpose.
10. Monitors should be "read" monthly and should be changed when it is filled with pests, dust/dirt, or when three months have passed.
11. Typically an elementary school will require 20 monitors, a middle school 35, and a high school 40.

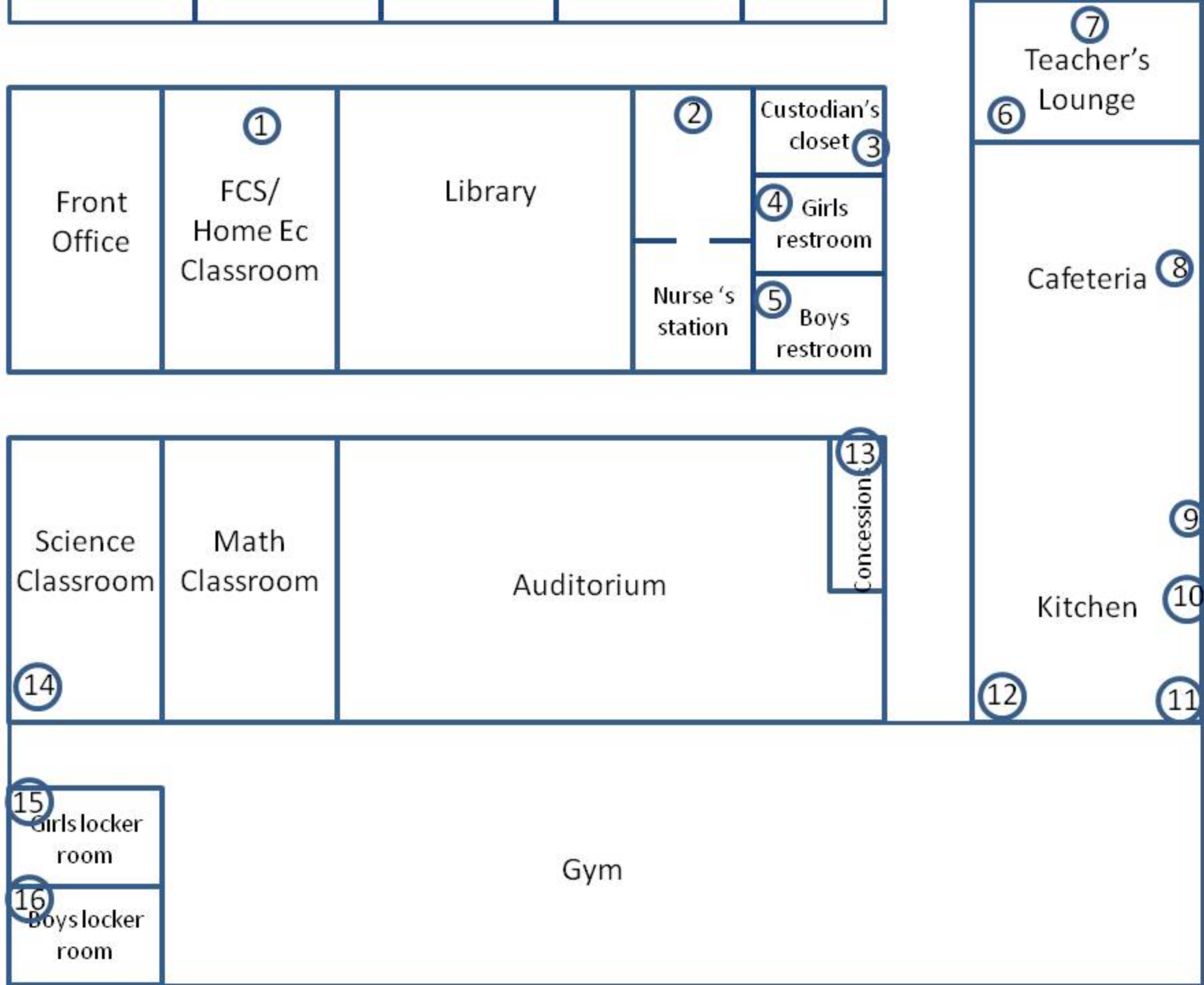
PVAs	Monitor Placement Area
Kitchen/cafeteria	Dry storage and pantry, dishwasher area, near external cafeteria doors, near floor drains, and within the lower panels of serving counters
Staff lounge	Behind vending machines, in counter or drawer, behind microwave, and next to refrigerator
Custodian's storage	Under shelving, near to floor sink, near external door (if present)
Reported hot zones from pest sighting log	Under counters, sinks, near windows
Special Education or kindergarten classrooms	Near food preparation area, near backpack storage, under sink
Home economics/ Life skills classrooms	Near stove or refrigerator, near washer/dryer, under counter
Stage areas	Under stage storage, equipment room
Locker areas	Under lockers
Concession stands	Under counters or equipment
Classrooms with animals/plants	Near pet food or plants
Cluttered classrooms	Remove clutter, monitor in storage areas, under sinks
Bathrooms (if there is a problem)	Near external doors, near cracks and crevices, near utility pipes without escutcheon plates
Nurses station (if there is a problem)	Under desk, under sink, near external door

This resource area was created by the: Urban Integrated Pest Management community

These resources are brought to you by the Cooperative Extension System and your Local Institution. eXtension provides objective and research-based information and learning opportunities that help people improve their lives. eXtension is an educational partnership of 74 universities in the United States.

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View this page: http://www.extension.org/pages/School_Integrated_Pest_Management:_Monitoring



Pest Surveillance Data Sheets

Date	Trap location	Trap condition	Pest	Number	Damage or other evidence	Pest management required	Remarks
8/20/10	1, FCS sink	Pests	German roach	4	Feces on under sink	Better sanitation , seal harborages , bait	
8/20/10	2, nurse stn	Good					
8/20/10	3, cust. clos..	Dusty				Replace glueboard	
8/20/10	4, girl's restroom	Good					
8/20/10	5, boy's restroom	Good					
8/20/10	6, teacher's l. sink	Pest	mouse	1		Better sanitation, seal c & c & escutcheon plate	Door sweep needed on cafeteria door?, add trap
8/20/10	7, teacher's l. vending mach.	Good					
8/20/10	8, cafeteria door	Pest	Ground beetle	2		Door sweeps needed	
8/20/10	9, kitchen dishwasher	Pest	German roach	5		Seal cracks, crevices; remove shelter; bait away from water /heat	Keep area dry between washings
8/20/10	10, kitchen lower panels	Pest	German roach	25		Better sanitation clean grease, bait away from water /heat	If needed, IGR to shelter; Boric acid to dry, closed voids; pyrethroids C&C?
8/20/10	11, kitchen dock door	Pest	mouse	1		Add door sweeps	Add snap trap or multiple catch trap
8/20/10	12, kitchen pantry	Pest	Mouse, German roach	1, 5		Remove cardboard, bait near infestation, use pest-proof containers	Add snap trap or multiple catch trap
8/20/10	13 concession sink	Pest	mouse	1		Need better sanitation, remove garbage after concession use, seal escutcheon plate	Add snap trap or multiple catch trap
8/20/10	14, science pet cage area	Pest	mouse	1		Clean pet bedding more frequently, put pet food in pest-proof container	Add snap trap or multiple catch trap
8/20/10	15, girls locker sink	Good					
8/20/10	16, boys locker sink	Good					

Pesticide Application Records

Time Log

**Labels
and
Material
Safety Data
Sheets
(MSDS)**

IPM Policy, Plans
&
Bid or Contract
Specs

Developing an IPM Policy Statement for Schools

(Excerpted from UT Extension PB1603 Suggested Guidelines for Managing Pests in Tennessee's Schools: Adopting Integrated Pest Management)

The first step in developing your school's IPM program is to draft an IPM policy. It is important to distinguish between an IPM policy and an IPM plan. A policy is a generalized guide to help school personnel develop a more detailed plan for action. An IPM plan is the more specific instructions about how to implement the policy at various school facilities. The IPM policy should state the intent of the school administration to implement an IPM plan; however, the policy need not include the plan. The policy should succinctly state the School System's goals and expectations of staff and contractors.

The policy should be based on generally accepted tenets of integrated pest management, including:

- strategies that rely on the best combinations of pest management tactics that are compatible with human health and environmental protection;
- proper identification of pest problems;
- monitoring programs to determine when pests are present or when pest problems are severe enough to justify corrective action;
- use of nonchemical management strategies whenever practical; and
- preferential use of least-toxic chemical controls when pesticides are needed.

To help your School System develop its own IPM policy statement, the following model is provided for you to adopt or modify as your School System determines.

Integrated Pest Management Policy Statement

_____ Independent School System Approved _____

Structural and landscape pests can pose significant problems to people, property and the environment. Pesticides can also pose risks to people, property and the environment. It is therefore the policy of the _____ Independent School System to incorporate integrated pest management procedures into the maintenance program conducted by our School System for control of indoor and outdoor pest problems.

Definitions

Pests are populations of living organisms (animals, plants or microorganisms) that interfere with use of school facilities for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property or the environment.

Integrated pest management, or IPM, is a strategy that focuses on long term prevention or suppression of pest populations using a combination of tactics that minimize the impact of control activities on human health or other, non-target organisms.

An *IPM plan* is a set of procedures detailing how particular pest problems will be handled by School System IPM staff. The IPM plan for a particular facility will include descriptions of planned activities to reduce pest presence or maintain a pest-free environment. Details within such plans may include needed facilities or landscape improvements, pest-proofing modifications, approved nonchemical and chemical control activities, a pest monitoring plan, educational plans and criteria for evaluating the need for control or the success of control efforts.

Development of IPM Plans

The School System should appoint an IPM coordinator whose duties will include approving IPM plans for both indoor and outdoor School System facilities. IPM plans will be designed to accomplish the following objectives:

- Reduce any potential human health hazards or protect against a significant threat to the safety of students, staff or the public.
- Prevent loss or damage to school structures or property.
- Prevent pests from spreading into and adversely affecting the community or to plant and animal populations beyond the site.
- Enhance the quality of life for students, staff and the public.

Essential IPM Plan Components

The School System's pest management plans should include the following components:

- All activities designed to reduce pest populations will be based on an accurate determination of the pest's identity and on knowledge of the pest's biology and life cycle.
- Significant, recurring pest problems will be observed and recorded by IPM staff using monitoring methods so pest populations can be detected and control measures applied to the appropriate sites.
- Predetermined action thresholds for important pest problems will be determined by IPM staff, so results of inspections and monitoring programs can be used to help staff objectively determine when control actions are justified.
- The full range of control options, including physical controls, mechanical controls, biological controls and chemical controls (including the option of "no action"), will be considered when deciding on a pest management action.
- Educational activities will be conducted to gain cooperation and understanding among School System staff, students and the public.

Pesticide Use in School Facilities

The decision concerning whether or not to apply a pesticide will be based on a review of all other available options and a determination that these options are not acceptable or are not feasible. Cost or staffing considerations alone should not be adequate justification for use of chemical control agents. Efforts will be made to avoid the use of pesticides by adequate pest-proofing of facilities, good sanitation practices, selection of pest-resistant plant materials and good horticultural practices. When it is determined that a pesticide must be used to meet important management goals, the least-hazardous material adequate for the job will be chosen.

Cooperation with IPM Coordinator

The School System will provide administrative support to the IPM coordinator for developing an IPM program that relies on minimal pesticide use. Such support will include efforts to address in a timely fashion, as budgets permit, any structural, horticultural and sanitation modifications recommended by the Coordinator to reduce or prevent pest problems. Furthermore, the School System should assist the Coordinator in developing and delivering materials and programs for staff, students and the public to educate them about the importance of sanitation and pest control.

Contractual Agreements with IPM Providers

All outside contractors providing pest control services will be required to follow the same IPM standards required for in-house staff. All contracted pest control activities will follow IPM plans based on the IPM components outlined above. The School System should take steps to ensure that selection of a contractor includes consideration of the contractor's ability to provide satisfactory IPM services in addition to price considerations.

Facilities Planning

The School System shall include pest management considerations in facilities planning. Such considerations include, but are not limited to, the planting of well-adapted and pest-tolerant plant varieties outdoors; landscape designs that require minimal fertilizer and pesticide inputs; proper placement and types of lighting to reduce pest entry into buildings; placement of dumpsters; storage of pesticide products; and pest-proof design of doors and ventilation systems.

Cooperation with Regulatory Agencies

All pesticide storage, transportation and application will be conducted in accordance with the requirements of the:

- Federal Insecticide, Fungicide and Rodenticide Act (7 United States Code 136 et seq.),
- Environmental Protection Agency regulations in 40 CFR,
- Occupational Safety and Health Administration regulations,
- Laws And Regulations Governing Pest Control Operators And Applicators Of Restricted-use Pesticides, Tennessee Department of Agriculture, Division of Regulatory Services, and
- school system policies and procedures, and local regulations.

Any person applying pesticides on school system property must have a pesticide applicator's license or be under the direct supervision of a person licensed to apply pesticides. Therefore, teachers or other occupants should not bring or use pesticides inside schools unless they are licensed and specifically granted permission by the officially designated IPM coordinator to do so.

The following is strongly suggested:

- Students, staff and parents should have access to a logbook which contains pesticide application records and other pest control services and information, including copies of labels and Material Safety Data Sheets (MSDS) used at each school;
- pest control services including pesticide applications should be recorded in a logbook prior to the next occupation of the building (before school starts the next day);
- this logbook should be kept in a central area that is easily accessible in each school;
- an overseer of the logbook should be appointed in each school;
- a 12-hour waiting interval (or longer if indicated by the label) between pesticide application and student occupation of treated facilities should be adhered to.
- Pesticide applicators should be educated and trained in the principles and practices of IPM and the use of pesticides approved for use in the school system.
- All applicators must comply with this IPM policy and follow appropriate regulations and label precautions when using pesticides in or around school facilities.

Programs in agriculture and natural resources, 4-H youth development,
family and consumer sciences, and resource development.
University of Tennessee Institute of Agriculture, U.S. Department of Agriculture
and county governments cooperating.
UT Extension provides equal opportunities in programs and employment.

Model Tennessee Pest Management Policy Statement for Schools and Districts

Karen M. Vail, Entomology and Plant Pathology;
Mary Rogge, College of Social Work; and
Martha Keel, Family and Consumer Sciences; and Pat Parkman, Entomology and Plant Pathology, The
University of Tennessee

Policy

It is the policy of this school district to implement Integrated Pest Management procedures to control structural and landscape pests and minimize exposure of children, faculty, staff, parents and other visitors to our schools, to pesticides.

Pests

It is the policy of this school district to control pests in the school environment. Pests such as cockroaches, fleas, fire ants and other ants, stinging wasps, termites and rodents are annoying and can disrupt the learning environment in schools. Pests are known to bite, sting, or transmit diseases, and may also cause allergic responses.

Pesticides

It is the policy of this school district to reduce exposure to pesticides in the school environment. When pesticides are used to control pests in schools, there is potential for human exposure. Excessive exposure may result in pesticide poisoning or allergic responses in sensitive individuals. Children may be more susceptible to pesticides than adults due to their smaller size and rapid growth and development. Their playful behavior may expose them to more pesticide residues.

Integrated Pest Management (IPM)

IPM is a process for achieving long term, environmentally sound pest suppression through the use of a wide variety of technological and management practices. IPM controls pests while reducing the hazards of pests and pesticide exposure to humans.

IPM emphasizes regular inspecting and monitoring of pests in order to detect them at low population levels, which is a better alternative than the scheduled spraying of pesticides. Information about the life cycle of the pest and its interactions with the environment are used to make a control decision. Most pests need access to food, water and shelter. By removing the basic survival elements such as food (sanitation) or by blocking access into a building or shelter in a building (exclusion), pest populations can be lowered or prevented from establishing.

Blocking access into the structure may be as easy as shutting doors when not in use; adding weather-stripping so doors close tightly; caulking and sealing openings in walls, especially around plumbing penetrations and wall/floor interfaces; installing or repairing screens; and pulling vegetation, shrubs and wood mulch at least 12-18 inches away from a structure to discourage occasional invaders as well as carpenter ants, termites and other pest species. Traps and vacuums with HEPA filters are other less toxic tools that can be used to manage pests.

Pesticides may be necessary in an IPM program, but they should be used in a manner to minimize the risk of exposure to the occupants. The use of baits, dusts in wall voids and sprays applied in cracks and crevices should reduce exposure of pesticides to occupants.

It is the policy of this school district to implement IPM, guided by the following four points of IPM:

Four Points of IPM

- Preventing pest populations using such non-chemical methods as sanitation and exclusion practices.
- Applying pesticides only as needed to correct verified problems.
- Selecting the least hazardous methods and materials effective for control of targeted pests.
- Precision targeting of pesticides to areas not contacted or accessible to the children, faculty and staff.

Recordkeeping

- Students, staff and parents should be notified about and have access to a logbook which contains pesticide application records and other pest control services and information, including copies of labels and Material Safety Data Sheets (MSDS) used at each school.
- Pest control services including pesticide applications should be recorded in a logbook prior to the next occupation of the building (before school starts the next day).
- This logbook should be kept in a central area that is easily accessible in each school.
- An overseer of the logbook should be appointed in each school. Persons wanting information about pesticide applications should contact the overseer.
- Parents, staff, students and other occupants should be made aware of the logbook and overseer through school policies/procedures, included with other information parents receive at beginning of the school year.

Registry

A registry of individuals sensitive to chemicals will be kept at each school. These individuals will be informed before products containing these chemicals are used.

Rules and Regulations

The Tennessee Department of Agriculture requires any person applying pesticides on school property to have a pesticide applicator's license or be under the direct supervision of a person licensed to apply pesticides. Therefore, teachers or other occupants cannot bring or use pesticides inside schools unless they are under the supervision of a licensed operator. Permission by the officially designated IPM coordinator may also be required.

Guidelines

The University of Tennessee Agricultural Extension Service publication ***PB1603, Suggested Guidelines for Managing Pests In Schools: Adopting Integrated Pest Management (IPM)*** available from the local Extension office or via the UT web site provides information on starting and maintaining an IPM program and includes an example of pest management bid specifications.

Success

The success of IPM in schools is dependent upon:

- Full cooperation of administrators, faculty, maintenance/custodial staff, parents, and students.
- Establishment of a school district-wide IPM coordinator and advisory committee.

- Inclusion of pest management and pesticide policy as part of school-based safety committee agendas.
- Designation in each school of a staff member to coordinate the IPM program and maintain pest management records. The IPM coordinator can be the same person as the logbook overseer.

Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development.
University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating.
UT Extension provides equal opportunities in programs and employment.

How to Develop Bid Invitations for Pest Control Services in Public Schools

Integrated pest management can be successfully performed by school employees; however, currently most school districts in Tennessee contract with a pest control firm to provide pest control services. Some schools may wish to combine in-house and contracted services. Each approach has advantages and disadvantages; school officials should decide which is needed for their school district.

Advantages/Disadvantages of Using School Personnel for Pest Control Services (In-House Pest Control)

School personnel providing pest control services may find it easier to communicate and develop a rapport with others present in the school. Cooperation with all individuals occupying the school is needed for an IPM program to succeed. Pest control services can be combined with other maintenance jobs as long as the employee is a licensed pest control operator. Also, the in-house personnel are more likely to identify a pest problem before it becomes too obvious. Using in-house personnel will avoid the difficulty of developing a bid invitation as well as eliminating the difficulty of choosing a reputable and reliable firm. Greater control of personnel and quality performance is provided through an in-house program.

The drawbacks to in-house pest control include the need to find a safe storage and disposal site for pesticides and equipment. The potential liability of the district in regard to pesticide use is probably higher in an in-house program. If a reentry interval is used which is greater than that listed on the label, such as 12 hours, overtime expenses could be incurred. Licensing an employee to apply pesticides in a school will require an initial charge for the licensing exam.

Advantages/Disadvantages of Using Contracted Pest Control Services

Professional pest control personnel are usually more experienced with the techniques that safely and effectively control pests. School district

personnel are not required to maintain contracted individuals' licenses, nor are they required to train the pest control technician. Potential liability could be reduced when using contracted services. The need for locating a special storage and disposal site for pesticides is eliminated. The district will avoid overtime pay for work performed after regular working hours.

Communication between contracted individuals and other school personnel, such as custodians, may not be as easily developed as in an in-house program. School district personnel must develop a bid invitation for contracted services and a reputable and reliable firm must be chosen.

Importance of Bid Specifications

Thorough, stringent bid specifications help eliminate the problem of low bids by firms that are unable or unwilling to provide the quality of work your school district should expect. School officials can inquire with the local Better Business Bureau or the Tennessee Department of Agriculture Division of Regulatory Services (TDA DRS), to determine whether complaints are received regularly about a prospective company. School district personnel must verify with TDA DRS the licensing of operators and the certification of pest control technicians.

It is important not to choose a firm by the lowest bid. Use the Weighted Factor Rating System for Evaluating Pest Control Bids at the end of this document to choose the most qualified contractor. Some school districts may refer to this as a request for proposal (RFP) rather than a bid specification to allow an evaluation of the bid based on quality and services as well as price. Also, a contract awarded for more than a year may allow a firm to determine effective control methods for your site and develop a rapport with school staff. Contracts established for several years may cause contractors to be more productive, knowing that they are not going to lose the job next year to a lower bidder.

IPM Bid Specifications Essential Items

Some suggested elements for IPM bid specifications are listed below:

- Prospective bidders should conduct a meticulous on-site inspection before submitting a bid. This allows potential bidders to view firsthand the facilities and pest problems, so bidders can make a realistic estimate of service needed and the time required for these services.
- Minimum service times can be defined by the school district in the bid. Bidders should understand that minimum service times are an expectation of the contract, and any failure of the contractor to meet these minimum service times should be grounds for cancellation of the contract by the school district.
- The use of least toxic materials necessary to provide satisfactory pest control, as identified by the district, should be understood and agreed to by the bidder.
- Appropriate monitoring tools and procedures should be used on a regular basis by the contractor to find pest infestations and assess the need for corrective treatment.
- School systems should receive from the bidder copies of labels and Material Safety Data Sheets (MSDS) for all products to be used on the school district property. The school system reserves the right to approve or disapprove any pesticide or device.
- The use of bait stations, crack-and-crevice or void treatments are preferred over the use of aerosol, broadcast, spot and baseboard treatments. The school system should not allow the use of aerosol or machine-generated fogs, mists or space sprays without written permission from the IPM coordinator.

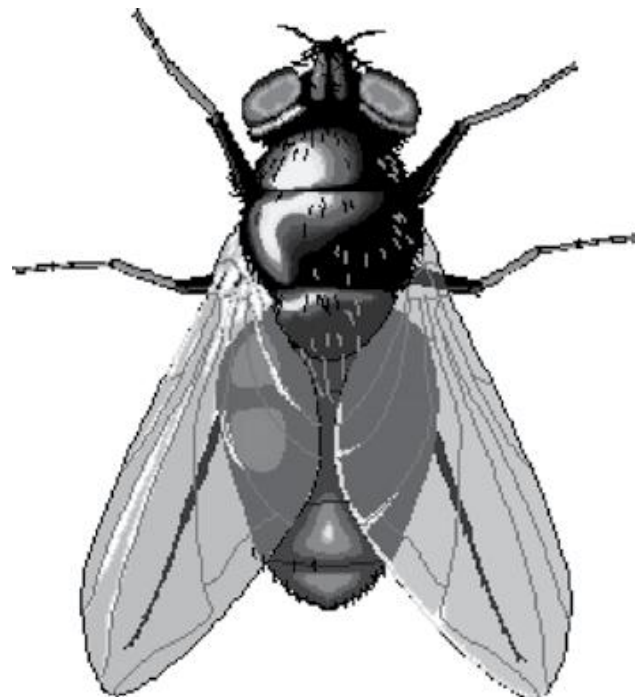
The above provisions and others are specified in the following set of model bid specifications. **THIS IS ONLY A SUGGESTED MODEL FOR SCHOOLS ATTEMPTING TO IMPLEMENT AN INDOOR IPM PROGRAM. THESE SPECIFICATIONS ARE NOT REQUIREMENTS.**

School systems may want to incorporate some elements of the model contract into existing bid specifications; others may adopt the requirements in total, with additions as suggested by the IPM coordinator, purchasing officer or other business personnel. Many standard clauses are omitted from the following contract to save space.

If there is a conflict between the model bid specifications and the school system's usual bid process, the school system should defer to its regular bidding process.

The following bid is excerpted and modified from the Texas Agricultural Extension Service Publication B-6015.

On November 23rd, 2004 the Tennessee school IPM advisory board met and discussed changes to the original bid invitations published in this manual in 1998. The suggested changes have been reviewed and incorporated into the following Model Contract Bid Specifications for Public Schools.



Model Contract Bid Specifications for Public Schools

Note: Italics indicate instructional language for the purchasing officer's attention or suggested specifications which the School System may wish to modify to suit its individual needs. The wording and content of these specifications are provided merely as a guide for School Systems wishing to ensure that contractors adhere to IPM principles. Schools are not legally required to use all or any portion of these bid specifications. Populations of the following pests are excluded from this contract: termites, carpenter ants and other wood-destroying organisms; mosquitoes; birds, bats, snakes and all other vertebrates other than commensal rodents and pests that primarily feed on outdoor vegetation. A separate contract can be used for these pests.

Description of Services

Introduction. The purpose of this bid (*or request for proposal*) is to provide _____ (*school system name*) with a source to provide pest management services at the prices offered herein, for the term of the agreement and any renewal periods. It is the policy of the _____ (*school system name*) to use Integrated Pest Management (IPM) as the strategy for control of pests in and around school facilities. The following description details the School System's understanding of the scope and type of IPM services to be rendered.

Bidders should read the entire set of specifications carefully, as these will form the basis of the contractual agreement with the School System. Failure to comply with the specifications may provide grounds for termination of the contractual agreement. Bids should reflect not only the expected costs to the Contractor providing basic pest control services, but also the costs of providing supplementary services such as reporting, emergency treatments, in-service training and quality control activities.

Bid Submittal Requirements

School Systems may insert their standard contract clauses and requirements here. Contracts typically include clauses on: pricing, price escalation, contract extensions, cancellation, insurance requirements, workers' compensation, subcontracting, bid bonds, payment policy and conditions for acceptance of contracts, etc. The following clauses are relevant specifically to pest control contracts and are included to assist the School System in developing pest control specifications.

Site Visits. Bidder is encouraged to inspect all premises or a representative sample to be covered in the contract and render a bid detailing specific charges for each of the listed sites/facilities. Bidders may examine the facilities on _____ (*one date*) by calling _____, at ____-____-____. Bids will not be accepted from prospective Contractors who have not conducted site visits *or attended a prebid conference* prior to submitting their bids. (*It is suggested that site visits be incorporated into the prebid conference.*)

Qualification of bidders.

1. Bids shall be considered only from Bidders who, in the judgement of the School System, are regularly established in business, financially responsible, able to show evidence of satisfactory past performance and ready, willing and able to render prompt and satisfactory services.
2. Each contractor shall furnish, with his/her bid, documentation specifically stating: (1) that his/her bid

company has been in business for at least ___ (5) years. A copy of the Tennessee Department of Agriculture-issued license will be presented with the bid. Commercial pesticide applicator certification cards for all technicians who will service the account will be furnished to the school system within 30 days of being awarded the contract.

3. Each contractor shall complete the **References** section of this bid and list customers who have contracts for service similar to that specified.
4. The School System may request other information sufficient to determine bidder's ability to meet the minimum standards listed above. Request for information contained in this Section also may occur at any other time during the effective period of this contract or any extension/renewal thereof.

References. The references sections must be filled out completely. Failure to do so, or references giving unsatisfactory recommendations, may be reason to disqualify the bid. If the references given are not, in the opinion of the School System, applicable to a contract of this magnitude, the School System may contact other firms with whom the bidder has or is currently providing services as a means of validating compliance or providing noncompliance with the references requirement.

Please list three references who have used your pest control services on a regular basis within the past year (preferably educational institutions).

Company Name: (1) _____
Person to Contact _____
Company Address _____
City, State, Zip _____
Telephone _____

Company Name: (2) _____
Person to Contact _____
Company Address _____
City, State, Zip _____
Telephone _____

Company Name: (3) _____
Person to Contact _____
Company Address _____
City, State, Zip _____
Telephone _____

If checked, the school system incorporates the following section (14 written lines) on Board Certified Entomologist or Associate Certified Entomologist into this bid specification (*request for proposal*).

Board Certified Entomologist or Associate Certified Entomologist. Preference shall be given to bidders with a trained entomologist on staff, or access to one as a consultant. A Board Certified Entomologist (BCE) is a person with formal training in entomology and an Associate Certified Entomologist (ACE) is one with more hands-on training and professional development. A BCE's and an ACE's expertise have been examined and certified by the Entomological Society of America. (For more information about BCEs or ACEs in your area, contact the Entomological Society of America at 10001 Derekwood Lane, Suite 100, Lanham, MD 20706-4876; tel. (301) 731-4535; <http://www.entsoc.org/>.)

Does your company have a Board Certified Entomologist or Associate Certified Entomologist on staff?
___ YES ___ NO

If you answered NO, please provide the name and address of a BCE, ACE, or other trained entomologist that your company uses.

Name: _____ BCE or ACE? ___ YES ___ NO

Address _____

City, State, Zip _____

Telephone _____

Questions. If there are any questions regarding this bid or should a conflict of terminology on this bid arise, please contact _____, *Contractor of Purchasing* at _____ (*phone*) or _____, *IPM coordinator* at _____ (*phone*) for clarification or issuance of an official addendum to resolve any conflicts. Specifications not listed in this bid or not included in official addenda are not applicable to this bid.

Scope of Work

Description of Services. The Contractor shall provide a comprehensive Integrated Pest Management (IPM) Plan for the buildings and other areas specified herein. This Plan shall be in accordance with the School System's IPM Policy. IPM is a process for achieving long-term, environmentally sound pest suppression through the use of a variety of technological and management practices. Control strategies in an IPM Plan should extend beyond the application of pesticides to include structural and procedural modifications that reduce the food, water, harborage and access used by pests.

The Contractor shall furnish all supervision, labor, materials and equipment necessary to accomplish the surveillance, trapping and pesticide application components of the IPM Plan. The Contractor shall also provide detailed, site-specific recommendations for structural and procedural modifications necessary to achieve pest prevention.

Pests Included and Excluded. The Contractor shall adequately suppress the following pests:
--Indoor populations of commensal rodents (e.g. Norway and roof rats, house mice), cockroaches, ants (including, but not limited to, fire ants and Pharaoh ants*), flies, spiders and any other arthropod pests not specifically excluded from the contract. * School System may be charged for the additional cost of Pharaoh ant bait materials.
-- Populations of the above pests that are located outside of the specified buildings, but within areas immediately adjacent to buildings.
-- Winged termite swarmers emerging indoors.
-- Severe brown recluse infestations or fire ants may require a separate contract.

Populations of the following pests are excluded from this contract:

- Termites, carpenter ants and other wood-destroying organisms
- Mosquitoes
- Birds, bats, snakes and all other vertebrates other than commensal rodents
- Pests that primarily feed on outdoor vegetation and large outdoor populations of fire ants

General Contractor Responsibilities

Initial Inspections of Facilities. The Contractor shall conduct a thorough initial inspection of each building or site within ____ (10) days of the initiation of the contract. The purpose of the initial

inspections is for the Contractor to evaluate the pest control needs of all premises and to identify problem areas and any equipment, structural features or management practices that are contributing to pest infestation. Access to building space shall be coordinated with the IPM coordinator. The IPM coordinator will inform the Contractor of any restrictions or areas requiring special scheduling.

Pest Control Plan. Before rendering service, within ____ (10) days after the initial inspection, the Contractor shall submit to the IPM coordinator a general Pest Control Plan with additional information listed for specific problems in each building. Within ____ (5) working days of receiving the Pest Control Plan, the IPM coordinator will decide if the Plan is acceptable. If aspects of the Pest Control Plan are incomplete or disapproved, the Contractor shall have ____ (2) working days to submit revisions. The Contractor should be on site to initiate service within ____ (5) working days following notice of approval.

The Pest Control Plan shall consist of five parts as follows:

A. Proposed methods and equipment for service: The Contractor shall provide a summary of proposed control methods including current labels and Material Safety Data Sheets (MSDS) of all pesticides to be used, brand names of pesticide application equipment, rodent bait boxes, insect and rodent trapping devices, pest monitoring devices, pest surveillance and detection equipment, and any other pest control devices or equipment that may be used to provide service. The summary can be made available either in print form or in electronic form. If made available in electronic form, software must be provided to allow printing of the electronic forms. If the electronic form contains pest control products that will not be used in the schools, then a printed list of those proposed to be used in the schools must be provided.

B. Proposed methods for monitoring and surveillance: The contractor shall describe methods and procedures to be used for identifying sites of pest harborage and access and for making objective assessment of pest population levels throughout the term of the contract. Monitoring devices should be placed in kitchen areas. In addition, the Contractor will work with the IPM coordinator to establish population levels that constitute unacceptable levels of pest presence in school facilities.

C. Service schedule for each building site: The Contractor shall provide complete service schedules that include planned frequency of Contractor visits, and specified day(s) of the week for Contractor visits.

D. Description of any structural or operational change that would facilitate the pest control effort: The Contractor shall describe site-specific solutions for observed food sources of pest food, water, harborage and access.

E. Commercial applicator or technician license: The Contractor shall provide a current list of names along with the photocopies of the commercial applicator license and the technicians' certification card for every Contractor employee who will be performing on-site services under this contract.

Record Keeping. The Contractor shall be responsible for maintaining a pest control logbook or file for each building or site specified in this contract. These records shall be kept on school property (normally in the front office or some other convenient site) and maintained on each visit by the Contractor. Each logbook shall contain the following items:

A. Pest Control Plan: A copy of the Contractor's approved Pest Control Plan for the facility, including labels and MSDS sheets for all pesticides used in the building, brand names for all pest control devices and equipment used in the building and the Contractor's service schedule for the building.

B. Service and Complaint Logs: A logbook for recording service visit activities, including complaints from staff concerning pest sightings, pest sightings and response log, pesticide applications, and other information

must be maintained and located in a central area of each school building (*front office*). A floor plan of the site must also be recorded showing the number and location of monitoring traps, and results of trap inspection such as

- (a) date checked,
- (b) trap number and location,
- (c) trap condition (either alright or replace),
- (d) number and species of pests trapped,
- (e) other evidence of pests (cast skins, feces, rub marks, etc.) or damage, and
- (f) need for pest management.

All services must be recorded in the logbook before start of school the next day or before the school is occupied, whichever comes first. Forms should show times in and out and should be signed by the Contractor at each visit.

C. **Service Report Forms:** Customer copies of the Contractor's Service Report Form, documenting all information on pesticide applications, pest sightings, sanitation/environmental status and building maintenance needs should be forwarded to the School System IPM Coordinator at least once a month.

Public Access to Records of Pest Control Services. The Contractor shall fulfill all obligations with regard to public access to pest control service records *as indicated in the School System's Official IPM Policy Statement*. At the minimum, all records must be kept in the logbook as indicated above.

Times of Service. The Contractor shall perform pesticide spray applications only during times when students are not expected to be present for normal academic activities for at least __ (*4 hours or as indicated in the School System's Official IPM Policy Statement or the minimum time stated on the pesticide label, whichever is greater*) after the application. In the event of an emergency treatment, the Contractor shall work with the IPM Coordinator to determine whether an emergency situation exists before applying any pesticides. In such cases pesticides may be applied only to the local area of infestation if students are present or if less than ____ (*4 hours or as indicated in the School System's Official IPM Policy Statement, or the minimum time stated on the pesticide label, whichever is greater*) will elapse before students are expected to be present. In the event of such an emergency treatment, the Contractor will maintain records of the reasons for such treatments.

Safety and Health. The Contractor shall observe all safety precautions throughout the performance of this contract and shall assume full responsibility and liability for compliance with all applicable regulations pertaining to the health and safety of personnel during the execution of work and shall hold the School System harmless for any action on its part or that of its employees that results in illness, injury or death.

Uniforms and Protective Clothing. All Contractor personnel working in or around buildings designated under this contract shall wear distinctive uniform clothing and carry their certification card. The Contractor shall determine and provide additional personal protective equipment required for the safe performance of work. Protective clothing, equipment and devices shall, as a minimum, conform to Occupational Safety and Health Administration (OSHA) standards for the products being used.

Vehicles. Vehicles used by the Contractor shall be identified in accordance with state and local regulations and shall be operated in a safe manner on School System property. Vehicles must meet Tennessee Department of Transportation requirements.

Licensing. Throughout the term of this contract, the Contractor shall maintain a current license issued by the Tennessee Department of Agriculture Division of Regulatory Services. In addition, all Contractor personnel providing on-site pest control services must be under the direct supervision of a person licensed to apply pesticides.

Complaints. Should at any time the School System become dissatisfied with pest control service, the successful Contractor shall be notified in writing by the IPM coordinator regarding problems that occurred. The notice will detail the problem and site(s) which is experiencing the problems. The Contractor will be required to contact the IPM coordinator to discuss possible solutions and the Contractor will be given a date by which response with the proposed solutions must be submitted.

Pest Control Responsibilities

Structural Modifications and Recommendations. The Contractor shall be responsible for advising the IPM coordinator and appropriate support staff about any structural, sanitary or procedural modifications that would reduce pest food, water, harborage, or access. The School System will not hold the Contractor responsible for carrying out structural modifications as part of the pest control effort. However, minor applications of caulk and other sealing materials by the Contractor to eliminate pest harborage may be approved by the School System on a case-by-case basis. The Contractor shall obtain the approval of the IPM coordinator prior to any application of sealing material or other structural modification.

Training. The Contractor will familiarize the appropriate school personnel, i.e., food service staff, custodian and maintenance personnel, IPM coordinator, and other appropriate individuals, with IPM during in-service trainings provided within __ months of accepting the contract.

Contractor entomology and/or IPM educational presentations made to the students will be encouraged. Contractors will be paid \$ __ /hour of the presentation.

Use of Pesticides. The Contractor shall be responsible for application of pesticides according to the label. All pesticides used by the Contractor must be registered with the U.S. Environmental Protection Agency (EPA) and by the State of Tennessee. Transport, handling and use of all pesticides shall be in strict accordance with the manufacturer's label instructions and all applicable federal, state and local laws and regulations.

The Contractor shall adhere to the following rules for pesticide selection and use:

A. Non-pesticide Products and Their Use: The Contractor shall use non-pesticidal methods of control wherever possible. For example:

Allergen-filtering portable vacuums rather than pesticide sprays shall be used for initial clean-outs of cockroach infestations, for swarming (winged) ants and termites and for control of spiders in webs wherever appropriate.

Trapping devices rather than pesticidal sprays shall be used for indoor fly control wherever appropriate.

B. Application by Need: Pesticide application shall be according to need and not by schedule. As a general rule, application of pesticides in any inside or outside area shall not occur unless visual inspections or monitoring devices indicate the presence of pests in that specified area. Preventive pesticide treatment of areas where surveillance indicates a potential insect or rodent infestation is acceptable on a case-by-case basis, as approved by the IPM coordinator.

C. Pesticide Products and Their Use: When it is determined that a pesticide must be used to obtain adequate control, the Contractor shall employ the least hazardous material, most precise application technique and minimum quantity of pesticide necessary to achieve control. When selecting pesticide products, **highest priority should be given to pesticides with a signal word of caution or category III and IV classification.**

Containerized and other types of crack-and-crevice-applied bait formulations, rather than sprays, shall be used for cockroach control and ant control wherever appropriate. As a general rule, liquid aerosol or dust formulations shall be applied only as crack-and-crevice treatments with application devices specifically designed or modified for this purpose. "Crack-and-crevice treatment" is defined in this contract as an application of small amounts of insecticides into cracks and crevices in which insects hide or through which they may enter a building.

Application of pesticide liquid, aerosol or dust to exposed surfaces and pesticide space sprays (including fogs, mists and ultra-low volume applications), shall be restricted to unique situations where no alternative measures are practical.

The Contractor shall obtain the approval of the IPM coordinator prior to any application of pesticide liquid, aerosol or dust to exposed surfaces or any space spray treatment. The Contractor shall take all necessary precautions to ensure student and staff safety and all necessary steps to ensure the containment of the pesticide to the site of application.

D. Pesticide Storage/Disposal: The Contractor shall not store or dispose of, any pesticide product on School System property.

E. Pesticide Sales and Distribution: The Contractor shall not sell, share or make available any pesticide products to any non-licensed School System employee.

Rodent Control. As a general rule, rodent control inside occupied buildings shall be accomplished by trapping devices. All such devices shall be concealed out of the general view and in protected areas so as not to be affected by routine cleaning and other operations. Trapping devices shall be checked on a schedule approved by the IPM coordinator. Trapping shall not be performed during periods when maintenance will be delayed by holidays, weekends, etc. The Contractor or IPM Coordinator shall be responsible partly for disposing of all trapped rodents and all rodent carcasses in an appropriate and timely manner.

In circumstances when rodenticides are deemed essential for adequate rodent control inside occupied buildings, the Contractor shall obtain the approval of the IPM coordinator prior to making any interior rodenticide treatment. All rodenticides, regardless of packaging, shall be placed in EPA-approved, tamper-resistant bait boxes to be inaccessible to children, pets, wildlife and domestic animals. In case of emergency where other rodenticide formulations or placements are deemed necessary, written permission from the IPM Coordinator must be obtained before use.

Frequency of bait box servicing shall depend upon the level of rodent infestation. All bait boxes shall be maintained in accordance with EPA regulations, with an emphasis on the safety of non-target organisms. The Contractor shall adhere to the following rules:

- All bait boxes shall be placed out of the general view, in locations where they will not be disturbed by routine operations.
- The lids of all bait boxes shall be securely locked or fastened shut.
- All bait boxes shall be securely attached or anchored to the floor, ground, wall or other surface, so the box cannot be picked up or moved.
- Bait shall always be placed in the baffle-protected feeding chamber of the box and never in the runway of the box.
- Use paraffinized bait blocks instead of pelletized bait formulations to reduce the likelihood that a rodent could remove bait.
- All bait boxes shall be labeled with the Contractor's business name and address and dated by the Contractor's technician at the time of installation and at each servicing.

Program Evaluation. The School System will continually evaluate the progress of this contract in terms of effectiveness and safety and will require such changes as are necessary. The Contractor shall take prompt action to correct all identified deficiencies.

Quality Control Program. The Contractor shall establish a complete quality control program to assure the requirements of the contract are provided as specified. Within ____ (5) working days prior to the starting of the contract, the Contractor shall submit a copy of his/her program to the School System.

Attachments should include list of schools/sites for which pest control services are to be performed, plus a copy of the School System's IPM Policy.

Weighted Factor Rating System for Evaluating School Pest Control Bids

The bidding process sometimes results in contracts being awarded to companies with lower performance standards. Price should not be the sole factor upon which a contract is awarded. Many schools and businesses address this problem by using a weighted factor rating system. Suggested weights and factors are listed if schools wish to use a weighted factor rating system. The factors and weights can be modified by each school system according to the school system's own priorities and preferences.

Below is a sample of a completed weighted factor rating form. In this example, supplier B has the highest rating and would be awarded the contract even though overall price was higher than that for supplier A.

Ratings within the various categories can be based on the contract officer's subjective assessment of a bidder's qualifications or might be based on a predetermined objective set of scoring criteria, such as giving a bidder a point for each desired component of a program that he/she demonstrates.

For example, companies A, B and C bid \$5,000, \$5,800 and \$6,000, respectively, for a one-year contract. The \$5,000 serves as a benchmark because it was the lowest bid. Therefore, company A receives the highest rating, in this case, of 35; company B bid was 16 percent higher and therefore this company is given a rating of 16 percent lower than the top rating ($[35 - [35 \times .16 = 5.6]] = 29.4$); and company C bid was 20 percent higher, hence a 20 percent lower rating (28).

Sample Weighted Factor Rating Form for Evaluating Pest Control Bids

FACTORS	MAXIMUM RATING	SUPPLIER (Weights)		
		A	B	C
<u>Technical Factors</u>				
IPM Plan	25	22	25	22
Technician experience/ IPM training	15	12	15	12
Previous experience in educational institutions or other public facilities	15	13	15	5
<u>Price Factors</u>				
Price	35	35	29	28
<u>Other Factors</u>				
Managerial, financial capabilities	5	3	5	3
Quality control program	5	4	5	4
TOTAL SCORE	100	89	94	74

Price should not be the only factor when judging bids from competing pest control firms. This weighted factor rating form can be used to help evaluate each bidder on several criteria. The above factors and weights can be modified by each school system according to its individual priorities.

Programs in agriculture and natural resources, 4-H youth development,
family and consumer sciences, and resource development.
University of Tennessee Institute of Agriculture, U.S. Department of Agriculture
and county governments cooperating.
UT Extension provides equal opportunities in programs and employment.

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