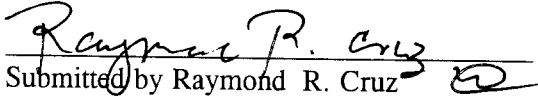





City of Carson Report to Mayor and City Council

July 19, 2011
New Business Consent

SUBJECT: CONSIDER APPROVING THE LEASE AGREEMENT BETWEEN THE CITY OF CARSON AND LOS ANGELES UNIFIED SCHOOL DISTRICT FOR THE USE OF CARSON ELEMENTARY SCHOOL PROPERTY FOR OVERFLOW PARKING


Submitted by Raymond R. Cruz
Public Services General Manager


Approved by Clifford W. Graves
Interim City Manager

I. SUMMARY

The city of Carson developed a Master Plan and is currently in preparations for a complete refurbishment of Carson Park. Once this project has been completed, the city will need to utilize property at Carson Elementary School for overflow parking for city events and day-to-day usage, when needed. An agreement has been developed between Los Angeles Unified School District and the city of Carson for this use. Tonight this agreement is being presented to the City Council for its consideration.

II. RECOMMENDATION

TAKE the following actions:

1. APPROVE the lease agreement between the city of Carson and the Los Angeles Unified School District for use of Carson Elementary School property for overflow parking.
2. AUTHORIZE the Mayor to execute the agreement following approval as to form by the City Attorney.

III. ALTERNATIVES

1. DENY the lease agreement between the city of Carson and Los Angeles Unified School District for use of Carson Elementary School property for overflow parking.
2. TAKE another action the City Council deems appropriate.

IV. BACKGROUND

After involving the community to develop a Master Plan, the city will soon commence a complete refurbishment of Carson Park. Currently, there are 98 parking spaces at the park. Once the refurbishment has been completed, an additional 41 stalls will be added. However, due to the new community center that is being constructed onsite additional overflow parking is needed to meet the expected demand at the new and improved park. Thus, staff has been working

on an agreement with the Los Angeles Unified School District to utilize property at Carson Elementary School. This agreement will permit the city to use a portion of Carson Elementary School's campus for overflow parking for city events and day-to-day usage when needed. This agreement is presented tonight for the City Council's consideration.

V. FISCAL IMPACT

In lieu of paying a fee for the use of Carson Elementary School's property, the city will instead resurface and restripe the utilized portion of the campus, and continue to maintain it for the period of the contract.

VI. EXHIBITS

- 1. Carson Elementary School Usage Agreement. (pgs. 3-77)

Document10

Prepared by: Cedric L. Hicks, Sr., Recreation Superintendent

TO:Rev010511

Reviewed by:

City Clerk	<u>City Treasurer</u>
<u>Administrative Services</u>	<u>Development Services</u>
<u>Economic Development Services</u>	<u>Public Services</u>

Action taken by City Council	
Date _____	Action _____

LICENSE AGREEMENT

PART I: BASIC LICENSE INFORMATION.

1. **SCHOOL:**

Carson Street Elementary School

161 East Carson Street

Carson, CA 90745

Tel No. 310-834-4508 Facsimile No. 310-549-9660

ATTN: Principal Martin Leon

2. **LICENSEE (or "CITY"):**

City of Carson

701 East Carson Street

PO Box 6234

Carson, CA 90749

Tel. No. 310-952-1769

Facsimile No. 310-830-1473

ATTN: Raymond R. Cruz

DISTRICT:

Los Angeles Unified School District

Leasing & Space Utilization

333 South Beaudry Avenue, 23rd Floor

Los Angeles, CA 90017

Tel. No. 213-241-6785

Facsimile No. 213-241-6784

ATTN: Scot Graham

3. **LICENSE AREA:**

A portion of the School that is the staff Parking Lot, as designated on Exhibit "A".

4. **USE:**

CITY shall use the License Area for overflow automobile parking in the manner specified in the Use Period below.

5. **CITY'S USE PERIOD:**

CITY shall have non-exclusive use of the License Area from 5pm to 9pm Monday through Friday and from 9am to 5pm Saturday and Sunday and those days when School is not in session (closed for holidays recognized by DISTRICT, Winter and Spring break).

First-Priority Use-CITY acknowledges and agrees that School activities occurring during the CITY's Use Period (including, without limitation, "Back to School Night," open house, parent-teacher conferences, assemblies, talent shows, and book fairs) shall have priority for use of the License Area and that the License Area shall not be used for parking during such School activities.

6. **TERM:**

This Agreement shall commence upon the full execution of this Agreement and shall expire after Thirty (30) days of actual use or earlier, if the DISTRICT has completed the process for a Long Term License Agreement which will replace this Agreement in its entirety.

NOT WITHSTANDING THE FOREGOING, DISTRICT SHALL HAVE THE RIGHT TO TERMINATE THIS LICENSE FOR ANY REASON OR NO REASON UPON FIFTEEN (15) DAYS' WRITTEN NOTICE TO CITY. CITY shall not be entitled to any reimbursement or other recourse for any loss or damages incurred as the result of the termination of this Agreement.

CITY, by placing his/her/its initials here _____, agree to DISTRICT's right to terminate this Agreement.

7. LICENSE FEE:

DISTRICT and CITY agree that no License Fee will assessed for the use of the License Area, so long as CITY is in compliance with the Conditions set forth below.

8. CITY'S INSURANCE:

A. CITY shall maintain the following coverages in the following amounts at all times following the Commencement Date, and continuing thereafter throughout the Term:

(1) Commercial General Liability Insurance covering the insured against claims of bodily injury, personal injury and property damage arising out of CITY's operations, assumed liabilities or use of the License Area, including a Commercial General Liability endorsement covering the insuring provisions of this Agreement and the performance by CITY of the indemnity agreements set forth in this Agreement, for limits of liability not less than: (i) Bodily Injury and Property Damage Liability - \$5,000,000 each occurrence and \$5,000,000 annual aggregate, and (ii) Personal Injury Liability - \$5,000,000 each occurrence and \$5,000,000 annual aggregate.

(2) Physical Damage Insurance covering all of the improvements and additions in and to, and the personal property of CITY located on the License Area. Such insurance shall be written on an "all risks" of physical loss or damage basis, for the guaranteed replacement cost value new without deduction for depreciation of the covered items and in amounts that meet any co-insurance clauses of the policies of insurance and shall include a vandalism and malicious mischief endorsement.

(3) The limits of policies of insurance required of CITY under this Agreement shall in no event limit the liability of CITY under this Agreement. Such insurance shall: (i) name DISTRICT and any other party it so specifies as an additional insured; (ii) specifically cover the liability assumed by CITY under this Agreement; (iii) if procured from an insurance provider, said insurance shall be issued by a company having a rating of not less than A.M. Best A-, VII or which is otherwise acceptable by the other party to this Agreement and said company is licensed to do business in the State of California; (iv) be primary insurance as to all claims thereunder and provide that any insurance carried by DISTRICT is excess and is non-contributing with any insurance requirement of CITY; (v) provide that said insurance shall not be canceled or materially reduced unless thirty (30) days' prior written notice shall have been given to DISTRICT; and (vi) contain a cross-liability endorsement or severability of interest clause acceptable to DISTRICT. CITY shall deliver said policy or policies or certificates thereof to DISTRICT on or before the Commencement Date.

B. CITY agrees to have its insurance companies issuing property damage



insurance waive any rights of subrogation that such companies may have against DISTRICT. CITY hereby waives any right that it may have against DISTRICT on account of any loss or damage to the property required to be insured by CITY pursuant to this Section 8 to the extent such loss or damage is insured under property damage insurance policies carried by CITY (or would have been covered had CITY maintained such insurance as so required under this Agreement).

C. Notwithstanding the foregoing provisions of this Section 8 to the contrary, CITY shall have the right to maintain the insurance required in this Section 8 through a program composed of any combination of self-insurance, risk retention, commercial insurance risk transfer, and/or risk pooling authorized by California law, all at the CITY's sole option; provided that CITY waives any rights of subrogation to which CITY might otherwise be entitled against DISTRICT in connection with any such self-insurance or other insurance not provided by third party insurance companies. If CITY self-insures or provides any such insurance through other than third party insurance policies, then: (i) such insurance protection shall be equivalent to the coverage required in this Section 8 and CITY shall not be relieved from its indemnification obligations under this Agreement; (ii) CITY shall be responsible for, assume all liability for, and release and waive all right of recovery against DISTRICT for, the cost of any loss or claim to the extent that such loss or claim would have been covered by third party insurance that CITY would otherwise be required to maintain hereunder.

9. NOTICES:

All notices required by this Agreement shall be in writing and delivered to CITY and DISTRICT at the addresses set forth above. All notices shall be effective upon receipt whether delivered by personal delivery or recognized overnight delivery service, facsimile (upon electronic confirmation of good transmission by the sending telecopier and a hard copy deposited in the U.S. mail within one (1) day of transmission), or sent by U.S. registered or certified mail, return receipt requested, postage prepaid. DISTRICT and CITY agree that notices may be given hereunder by the parties' respective legal counsel and that, if any communication is to be given hereunder by DISTRICT's or CITY's counsel, such counsel may communicate directly with all principals so long as a copy is provided to principals' legal counsel.

THIS LICENSE AGREEMENT is made by and between DISTRICT and CITY, as respectively identified in Part I above.

NOW, THEREFORE, for and in consideration of the mutual covenants and promises herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:



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PART II: PROVISIONS IN ADDITION TO PART I ABOVE.

10. GRANT OF LICENSE:

DISTRICT hereby grants to CITY a nonexclusive license to use the License Area as set forth in Part I above and for no other purpose without the prior written consent of DISTRICT, which consent may be withheld or conditioned in DISTRICT's sole and absolute discretion. CITY agrees to only use the License Area in strict accordance with the terms and conditions set forth herein. CITY understands that its use is secondary to DISTRICT's instructional program and no part of CITY's use shall disrupt DISTRICT'S instructional program as determined by DISTRICT in its sole discretion.

11. CONDITIONS:

(a) **As-Is Condition:** CITY accepts the License Area "AS-IS," "WHERE-IS," and "WITH ALL FAULTS" subject to all applicable zoning, municipal, county, and state laws, ordinances, and regulations governing and regulating the use of License Area, and accepts this Agreement subject thereto and to all matters disclosed thereby. CITY agrees that DISTRICT shall not make any alterations, modifications, repairs, or improvements to the License Area at any time.

(b) **Alterations, Additions, or Improvements:** Except as noted herein, CITY shall not make any alterations, additions, or improvements to the License Area during the term of this License Agreement. DISTRICT discloses and CITY understands that any alterations, modification, and improvements to the School may be subject to the approval of the Department of State Architect. Any alterations, additions, or improvements without the prior consent of DISTRICT shall be construed as a breach of this Agreement. If CITY makes any alterations, additions, or improvements to the License Area without the written consent of DISTRICT, DISTRICT shall have the right to restore the License Area to the condition the License Area were in immediately prior to CITY's occupancy or undertake such work necessary to bring said alterations, additions or improvements to DISTRICT standards, and CITY agrees to reimburse DISTRICT for its costs incurred thereby within thirty (30) days of CITY's receipt of DISTRICT's invoice. The exercise of DISTRICT's right to restore the License Area or bring the alteration, addition or improvement to DISTRICT standard shall not excuse CITY's breach of this Agreement nor shall the exercise waive any other remedy available to DISTRICT.

(c) **Comply with Law:** CITY shall comply at all times during its use and occupancy of the License Area with all ordinances, laws, and regulations affecting the use and occupancy thereof, including the maximum occupancy ordinance. CITY shall not allow the License Area to be used for any unlawful or objectionable purpose, nor shall CITY cause, maintain, or permit any nuisance in, on, or about the License Area. CITY, at its sole cost and expense, shall procure and keep in effect any and all permits or licenses for its operation and use of the License Area. DISTRICT agrees to assist CITY (at no cost or expense to the DISTRICT) to obtain such permits or licenses if such assistance is necessary.

If CITY is unable to procure any necessary permits or licenses necessary for its operation and use of the License Area, CITY shall have the right to cancel this License upon thirty (30) days written notice to DISTRICT.



(d) **Food, Drinks, Tobacco, Liquor, Narcotics and Firearms:** CITY shall not allow food, candy, popcorn, drinks, or refreshments of any kind in the License Area without written permission by Principal. CITY shall enforce no smoking in the License Area and prohibit the use of profane language, the use of tobacco products, possession of or use of intoxicating liquors or narcotics, quarreling or fighting, betting, or other forms of gambling, or conducting a lottery. The possession and carrying of firearms and weapons of any kind on District property shall be prohibited, except for law enforcement personnel.

(e) **Flammables:** CITY shall obtain the necessary permits from the City or County Fire Department prior to events utilizing fireworks, open flames, lighted candles, tents, canopies, overhangs, or sides and, upon request, shall provide a copy of said permits to DISTRICT.

(f) **Emergency Access:** Emergency fire exit pathways shall be a continuous and unobstructed means of egress to a public way.

(g) **Persons with Convictions:** CITY shall not, with actual knowledge, allow any person who has been convicted of any of the offenses set forth in the Education Code, Section 44010 and is under the direction or control of CITY to enter upon the License Area. A plea or verdict of guilty shall be deemed a conviction, irrespective of a subsequent order under the provisions of Penal Code Section 1203.4.

(h) **Other Structures; Power Sources and Electrical Cables:** No structures may be erected or assembled on the License Area nor may any electrical, mechanical, or other equipment be brought thereon unless previously authorized in writing by DISTRICT's Office of Environmental Health & Safety. Electrical cords and cables shall be in good condition (not frayed). Any cord or cables lying across a pedestrian pathway shall be properly bundled and covered. They shall not lie across vehicle pathways.

(i) **Property Taxes/Assessments:** The right to use the License Area conveyed herein may be subject to real property taxation and/or assessment. In such event CITY shall pay before delinquency all taxes or assessments which at any time may be levied by the State, County, City, or other tax or assessment levying body upon the License Area and any improvement or fixtures located hereon or, in the event DISTRICT receives notice of such assessment after the expiration or earlier termination of this Agreement, CITY shall reimburse DISTRICT immediately upon receipt of written notice of the amount owed. CITY shall have the right to contest any such tax or assessment with the taxing jurisdiction levying such taxes.

(j) **Parking Operation:** CITY shall comply with all of the foregoing in its use of the License Area for parking:

(1) **Safe and Sanitary:** CITY, at CITY's sole cost and expense, shall maintain the License Area in a good, clean, safe and sanitary condition during its use period, as defined in Section 5 herein above. CITY shall sweep and pick up trash at the end of each day of use so that the License Area may be used for school purposes. CITY shall reimburse DISTRICT for the repair of any damage to the License Area occurring during the term hereof that



arises out of or is in any way related to CITY's use of the License Area. As this License is nonexclusive, CITY shall not be responsible for damages caused by persons in the License Area with the consent of DISTRICT.

(2) CITY shall clean and address any extraordinary oil spills or other secretions from motor vehicles parked in the License Area during CITY's use period. Notwithstanding the foregoing, CITY shall cause the License Area to be steam cleaned to remove secretions from motor vehicles at least one (1) time per six (6) months during its Term.

(3) CITY shall not allow any portion of the License Area or the School to be used for urination or defecation by any person during its Use Period. The School's restroom facilities will not be available for use.

(4) CITY shall be responsible for repaving and restriping (the "Work") and on going maintenance of the License Area. CITY shall commence the Work within six (6) months after the execution of this Agreement. All Work shall be approved prior to commencement and coordinated through the School Principal or his/her designee. CITY shall repair deficiencies in the pavement and repair and/or replace fencing surrounding the License Area.

(5) CITY shall be responsible for tree trimming and tree maintenance. CITY shall comply with DISTRICT's Integrated Pest Management Policy a copy of which is attached hereto and incorporated herein by reference as Exhibit B, as may be amended in the future.

(6) License Area shall be locked using the Double lock system when DISTRICT or CITY is not using the License Area. CITY shall provide DISTRICT with its key for the locked gates to the License Area. CITY agrees that the key shall be in the possession of an adult person employed by CITY at all times and CITY shall be solely responsible for opening and securing the gate during its Use Period.

(7) CITY shall cause any automobiles remaining in the License Area after the end of the use period at 5:00 pm on Sunday and 9:00pm Monday through Friday to be towed away by a tow operator licensed to do business in the City of Los Angeles or City of Carson. All charges arising from the tow of any automobiles shall be paid either by the owner or operator of the towed automobile or by CITY. In the event any automobile remains in the License Area outside of CITY's Use Period, DISTRICT may cause the automobile to be towed from the License Area and, in the event DISTRICT is required to pay any charges arising from the towing of such automobile, such charges shall be paid immediately by CITY. CITY agrees that if DISTRICT discovers and causes an automobile(s) remaining in the License Area outside of CITY's Use Period to be towed from the License Area on two (2) separate occasions, DISTRICT may call this Agreement in default and immediately terminate this Agreement without providing CITY any opportunity to cure. CITY understands that the operation of the School is the foremost priority for the DISTRICT and handling these types of situations consumes time that the School administrators could better use for the benefit of the students.



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(8) CITY agrees to use its best efforts in operating the parking in the License Area to minimize noise and disruptions to the surrounding neighbors. CITY understands that the School is in close proximity to residences and some members of the neighborhood do not support the use of the School for public parking regardless of the lack of parking in the community. Repeated complaints about noise, nuisance, trash and undesirable behavior may require DISTRICT to terminate this Agreement.

12. WAIVER; INDEMNITY:

(a) DISTRICT shall not be liable for and CITY hereby waives all claims against DISTRICT for damage to any property or injury, illness, or death of any person in, upon or about the License Area arising in any way due to, in connection with, or related to, directly or indirectly, the use of the License Area by CITY, CITY's employees, agents, invitees, or contractors. DISTRICT and CITY hereby agree and acknowledge that the relationship between DISTRICT and CITY is solely a District/CITY relationship and not a principal/agent relationship or any other relationship. CITY is acting on its own behalf in using the License Area (for the purposes described herein or for any other purpose(s) that may occur) and is not operating as an agent of DISTRICT or as part of DISTRICT's operations as a school district. The provisions of this Section 12(a) shall not apply to the extent that all or part of the Liabilities is due to the gross negligence or willful misconduct of the Indemnified Parties or due to a breach of DISTRICT's obligations under this Agreement.

(b) To the fullest extent permitted by law, CITY shall indemnify, defend, and protect DISTRICT, its Board of Education, its officers, directors, other members, partners, employees, agents, and independent consultants (singularly, "Indemnified Party"; collectively, "Indemnified Parties") and hold the Indemnified Parties harmless from any and all losses, costs, damages, expenses, and liabilities (including, without limitation, court costs and reasonable attorneys' fees) incurred in connection with or arising from any cause (i) in the use or occupancy by CITY of the License Area; or (ii) any default by CITY in the observance or performance of any of the terms, covenants, or conditions of this Agreement on CITY's part to be observed or performed; (iii) the use or occupancy of the License Area by CITY or any person claiming by, through, or under CITY, CITY's employees, agents, contractors, CITY's, directors, officers, partners, trustees, visitors, or invitees, or any such person in, on, or about the License Area with CITY's express permission either prior to, during, or after the expiration of the term of this Agreement (singularly, "Liability"; collectively, "Liabilities"); and (iv) any claim by a third party that DISTRICT is responsible for any actions by CITY in connection with any use or occupancy of the License Area or in any way related to this Agreement. The provisions of this Section 12(b) shall not apply to the extent that all or part of the Liabilities is due to the negligence or willful misconduct of the Indemnified Parties or due to a breach of DISTRICT's obligations under this Agreement.

Notwithstanding anything to the contrary set forth in this Section 12, DISTRICT shall remain liable for any and all losses, costs, damages, expenses, and liabilities (including, without limitation, court costs and reasonable attorneys' fees) incurred in connection with or arising from any cause in the use or occupancy by DISTRICT of the License Area, including, without limiting the generality of the foregoing: (a) any default by DISTRICT



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in the observance or performance of any of the terms, covenants, or conditions of this Agreement on DISTRICT's part to be observed or performed: and (b) the use or occupancy of the License Area by DISTRICT or any person claiming by, through, or under DISTRICT or DISTRICT's employees, agents, contractors, directors, officers, partners, trustees, visitors, or invitees, or any such person in, on, or about the License Area either prior to, during, or after the expiration of the term of this Agreement.

The provisions of this Section 12 shall survive the expiration or earlier termination of this Agreement.

13. HAZARDOUS MATERIALS:

CITY shall not cause or permit any hazardous material, as defined below, to be brought, kept, or used in or about the School by CITY or its agents, employees, contractors, or invitees in violation of said Environmental Laws. CITY agrees to indemnify, defend (by counsel approved by DISTRICT), and hold DISTRICT harmless from and against any and all claims, judgments, damages, penalties, fines, costs, liabilities, and losses (including without diminution in value of the School and sums paid in settlement of claims, attorneys' fees, consultant fees, and experts' fees) which arise during or after the term of this Agreement as a result of CITY's breach of this provision. As used in this Agreement, the following definitions shall apply: "Environmental Laws" shall mean all federal, state, and local laws, ordinances, court orders and administrative directives, rules, and regulations now or hereafter in force, as amended from time to time, in any way relating to or regulating human health or safety, or industrial hygiene or environmental conditions, or protection of the environment, or pollution or contamination of the air, soil, surface water, or groundwater.

The provisions of this Section 13 shall survive the expiration or earlier termination of this Agreement.



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14. SECURITY:

DISTRICT makes no representations or warranties regarding the safety or security of the License Area. DISTRICT shall not provide, supervise, or furnish personnel in connection with personal safety and security of CITY's employees, invitees, customers, or other persons within and about the License Area.

15. ASSIGNMENT:

CITY shall not voluntarily or by operation of law assign, transfer, mortgage, or otherwise transfer or encumber all or any part of CITY's interest in this Agreement or in the License Area.

16. DEFAULT BY CITY:

Each of the following shall be a material breach of this Agreement by CITY:

(a) CITY shall fail to make any payment owed by CITY under this Agreement, as and when due, and where such failure is not cured within three (3) business days following receipt of written notice by CITY from DISTRICT; and

(b) CITY shall fail to observe, keep or perform any of the terms, covenants, agreements, or conditions under this Agreement that CITY is obligated to observe or perform, other than that described in subparagraph (a) above, for a period of thirty (30) days after notice to CITY of said failure; provided, however, that if the nature of CITY's default is such that more than thirty (30) days are reasonably required for its cure, then CITY shall not be deemed to be in material breach of this Agreement if CITY shall commence the cure of such default so specified within said thirty (30) day period and diligently prosecutes the same to completion, but in no event shall CITY have a period longer than sixty (60) days to cure such default.

If a default shall be made under any provision of this Agreement, DISTRICT may reenter the License Area, take possession thereof, and remove all persons there from.

If CITY breaches any covenant, obligation, requirement, or condition set forth in this Agreement, so long as CITY continues to occupy the License Area, in addition to any and all remedies available to DISTRICT at law, CITY hereby agrees that DISTRICT shall have the right to file an unlawful detainer action to recover possession of the License Area pursuant to the California unlawful detainer statutory scheme, as amended from time to time, and CITY hereby waives the right to object to DISTRICT's use of the unlawful detainer procedure on the basis that its real property interest in the License Area is a license and not a lease.

17. NATURAL DISASTER; CIVIL UNREST:

CITY agrees that circumstances related to natural disasters or civil unrest may require this Agreement be terminated. If the License Area is determined to be structurally unsound or to pose a danger to occupants in DISTRICT's sole and absolute discretion, or if access to the facility is required for use by DISTRICT or in order to make repairs, this Agreement shall be terminable immediately upon delivery of written notice to CITY. In the event this Agreement is terminated pursuant to this provision, CITY SHALL NOT BE ENTITLED TO ANY REIMBURSEMENT OR OTHER RECOURSE FOR ANY



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LOSS OR DAMAGES INCURRED AS THE RESULT OF THE TERMINATION OF THIS AGREEMENT PURSUANT TO THIS PROVISION.

18. SEVERABILITY; SECTION HEADINGS:

The invalidity of any provision of this Agreement, as determined by a court of competent jurisdiction, shall in no way affect the validity of any other provision hereof. The section and paragraph headings in this Agreement are for the purpose of convenience and heading only, and the words contained therein shall in no way be held to explain, modify, or aid in the interpretation, construction, or meaning of the provisions hereof.

19. TIME OF ESSENCE:

TIME IS OF THE ESSENCE OF ALL OBLIGATIONS OF THE PARTIES HEREUNDER.

20. ENTIRE AGREEMENT:

All prior understandings and agreements between the parties or other third parties are merged within this Agreement, including and incorporating the recitals contained hereinabove, which alone fully and completely sets forth the understanding of the parties.

21. MODIFICATION OR AMENDMENT:

This Agreement may not be modified, amended, or terminated orally or in any manner other than by written agreement signed by the party against whom enforcement of such modification, amendment, or termination is sought.

22. LEGAL ACTIONS:

If either party named herein brings an action to enforce the provisions hereof or declares rights hereunder, the prevailing party in any such action, on trial or appeal, shall be entitled to its reasonable attorneys' fees and costs. Notwithstanding anything to the contrary in this Agreement, neither party hereto shall be liable to the other party hereto for consequential damages incurred in connection with this Agreement, including, but not limited to, loss of profits or other revenue, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring.

23. ABSENCE OF WAIVER:

No waiver by DISTRICT or CITY of any provision hereof shall be deemed to be waiver of any other provision hereof or of any subsequent breach by DISTRICT or CITY of the same or any other provision.

24. CUMULATIVE REMEDIES:

No remedy or election hereunder shall be deemed exclusive but shall, wherever possible, be cumulative with all of the remedies at law or in equity.

25. DISTRICT'S RIGHT OF ENTRY:

DISTRICT and DISTRICT's agents shall have the right to enter upon the License Area at reasonable times for the purpose of inspecting same and in making such alterations, repairs, improvements, or additions to the License Area as DISTRICT may deem necessary or desirable.

26. FACSIMILE TRANSMISSION:

Any executed copies of this Agreement and all related documents may be executed and



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delivered by facsimile transmission. The recipient of said transmission shall consider such delivery as delivery of the originally executed document. All parties to this Agreement hereby warrant and represent that any document which they deliver by facsimile transmission shall be a true and correct copy of the original document. All parties hereby agree that, when delivery of a document is transmitted by facsimile, the transmitting party's signature to such a document shall be fully binding upon the transmitting party with the same force and effect as if the original document had been personally delivered.

27. REPRESENTATIONS & WARRANTIES:

Each party, by their respective signatures below, represents to the other party that it has full power and authority to execute this Agreement. Warranties, representations, agreements, and obligations contained in this Agreement shall survive the execution and delivery of this Agreement and shall survive any and all performances in accordance with this Agreement. This Agreement is issued in accordance with the provisions of the Education Code of the State of California.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date set forth adjacent to their respective signatures.

DISTRICT:

LOS ANGELES UNIFIED SCHOOL DISTRICT,
a School district duly organized and existing under the laws
of the State of California

Date: _____

By: _____

Name: _____

Title: _____

Reviewed and accepted by:

Name:

In his/her capacity as the Principal of
Carson Street Elementary School and not in his/her
individual capacity.

CITY:

City of Carson, a municipal corporation

Date: _____

By: _____

Name:

Title:



delivered by facsimile transmission. The recipient of said transmission shall consider such delivery as delivery of the originally executed document. All parties to this Agreement hereby warrant and represent that any document which they deliver by facsimile transmission shall be a true and correct copy of the original document. All parties hereby agree that, when delivery of a document is transmitted by facsimile, the transmitting party's signature to such a document shall be fully binding upon the transmitting party with the same force and effect as if the original document had been personally delivered.

27. REPRESENTATIONS & WARRANTIES:

Each party, by their respective signatures below, represents to the other party that it has full power and authority to execute this Agreement. Warranties, representations, agreements, and obligations contained in this Agreement shall survive the execution and delivery of this Agreement and shall survive any and all performances in accordance with this Agreement. This Agreement is issued in accordance with the provisions of the Education Code of the State of California.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date set forth adjacent to their respective signatures.

DISTRICT: LOS ANGELES UNIFIED SCHOOL DISTRICT,
a School district duly organized and existing under the laws
of the State of California

Date: _____

By: _____

Name: _____

Title: _____

Reviewed and accepted by:

Martin Leon Martinez

Name:

In his/her capacity as the Principal of
Carson Street Elementary School and not in his/her
individual capacity.

CITY: City of Carson, a municipal corporation

Date: _____

By: _____

Name: _____

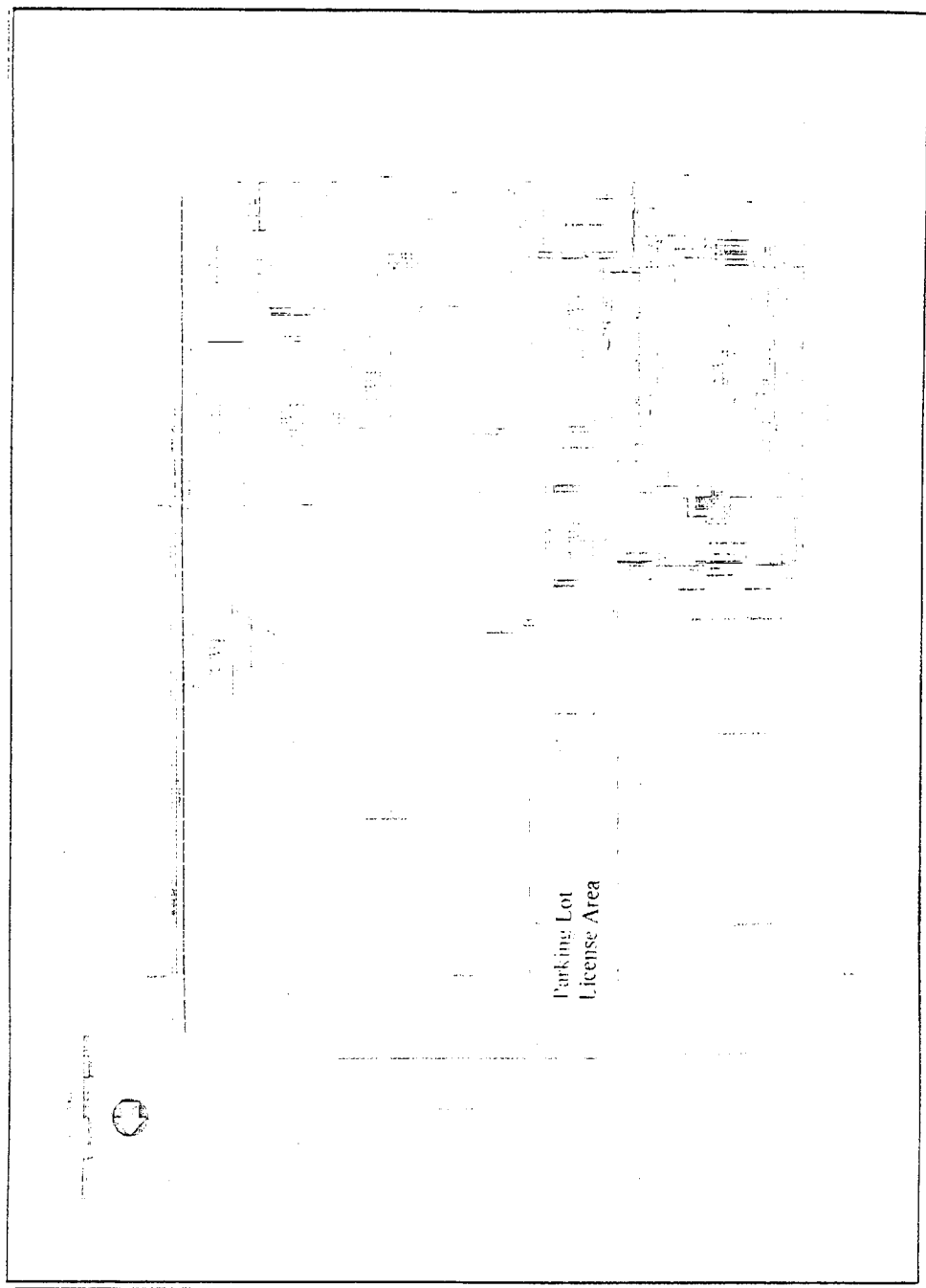
Title: _____

EXHIBIT "A"

SITE MAP DEPICTING THE LICENSE AREA



EXHIBIT A



Parking Lot
License Area

PLOT PLAN

CARBON E.L.
141 E. CARBON ST.
CARBON MTS.



RELOCATABLE HOUSING UNIT
FACILITIES SERVICES DIVISION

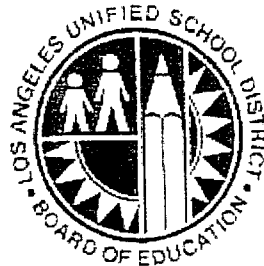
EXHIBIT "B"

Integrated Pest Management Policy



LOS ANGELES UNIFIED SCHOOL DISTRICT

**INTEGRATED PEST MANAGEMENT
PROCEDURES MANUAL**



October 2000



LOS ANGELES UNIFIED SCHOOL DISTRICT
INTEGRATED PEST MANAGEMENT
PROCEDURES MANUAL

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INTEGRATED PEST MANAGEMENT
PROCEDURES MANUAL

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I INTRODUCTION

In March 1999, the board of Education adopted a revised Integrated Pest Management (IPM) program. This procedure manual has been developed to reflect the revised IPM policy. IPM as defined in the District policy is as follows:

"Integrated Pest Management (IPM) is the coordinated use of pest and environmental information with available pest management methods to prevent unacceptable levels of pest damage by the most economical means, and with the least possible hazard to people and the environment. The goal of the IPM approach is to manage pests and the environment so as to balance costs, benefits, human health and environmental quality. IPM systems utilize a high quantity and quality of technical information on the pest and its interaction with the environment (site). Because IPM programs apply a holistic approach to pest management decision-making, they take advantage of all low risk management options, emphasizing natural biological methods, and the appropriate use of selective pesticides. IPM strategies incorporate environmental considerations by emphasizing pest management measures that minimize intrusion on natural biodiversity ecosystems. Thus, IPM is:

- *A system utilizing multiple methods,*
- *A decision-making process,*
- *A risk reduction system,*
- *Information intensive,*
- *Biologically based,*
- *Cost effective, and*
- *Site specific."*

Implementation of the pest management policy is a challenging and rewarding endeavor to reduce and eventually eliminate the use of pesticides in all school environments. Everyone involved with the District including teachers, students, parents, principals, administrators, and maintenance and operations staff, has a role in the

implementation and the responsibility to maintain the level of pest management attained through this program. The goal is to keep pest levels at or below the established threshold level as described in this manual and thus reduce the risk from pest presence and damage, without the potential risk from the means used, particularly pesticides, to manage pests. A comprehensive, concerted effort by all involved will achieve this goal in a relatively short time. This procedure manual will serve as a guide to accomplish this task.

II BACKGROUND

The District's Integrated Pest Management (IPM) development team was chartered by the board of Education's School Safety and Campus Environment Committee to develop a revised policy to regulate and reduce the use of pesticides in schools. The team included representatives from several Los Angeles Unified School District departments including Maintenance and Operations, the Child Development Division, the Environmental Health and Safety Branch, the Food Services Branch, and the Office of School Operations. In addition, community, labor and regulatory representatives from the Los Angeles Safe Schools Coalition, Action Now, Physicians for Social Responsibility, Pesticide Watch, Local 99 of the Service Employees International Union (SEIU), United Teachers Los Angeles (UTLA), 10th District PTA, State of California Department of Pesticide Regulation, and the Los Angeles County Health Department participated. The District, upon the recommendation of team members, retained Mr. William E. Currie, an Integrated Pest Management expert, for independent advice and counsel. Mr. Currie also serves as a team member.

III PURPOSE

The revised Integrated Pest Management policy charts a course for the immediate reduction and planned elimination of chemical pesticide and herbicide usage



within the Los Angeles Unified School District. Implementation of this policy is seen as a valuable component in ensuring the health and safety of students and staff.

Successful implementation of this policy will require thorough training of Maintenance and Operations and Food Services personnel. An intensive information program will also be necessary for school administrative and teaching staff. Training and information will include a ban on personal pesticide use in schools, limiting food to designated areas, and continuing to restrict purchase and application of pesticides to District pest management staff who are licensed and authorized to do so. Additional resources will enhance sanitation methods and procedures in the school cafeterias. An increase in gardening personnel will reduce herbicide use, as more weeds will be manually removed. Due to the size of the District, full implementation of the IPM policy is expected to take a minimum of three to four years.

IV POLICY

It is the District's policy to practice Integrated Pest Management (IPM). All aspects of this program will be in accordance with federal and state laws and regulations, and county ordinances. All District policies must conform to this IPM policy.

The District's goal is to provide for the safest and lowest risk approach to manage pest problems while protecting people, the environment and property. Pests must be managed to protect the health and safety of students and staff, maintain a productive learning environment, and maintain the integrity of school buildings and grounds. The District's IPM policy incorporates a focus on long term prevention and will give non-chemical methods first consideration when selecting appropriate pest management techniques. The District will strive to

ultimately eliminate the use of all chemical methods since pesticides pose risks to human health and the environment, with special risks to children. It is recognized that pesticides cause adverse health effects in humans such as cancer, neurological disruption, birth defects, genetic alterations, reproductive harm, immune system dysfunction, endocrine disruption and acute poisoning.

The District's long term objective includes meeting the "precautionary principle" which states that:

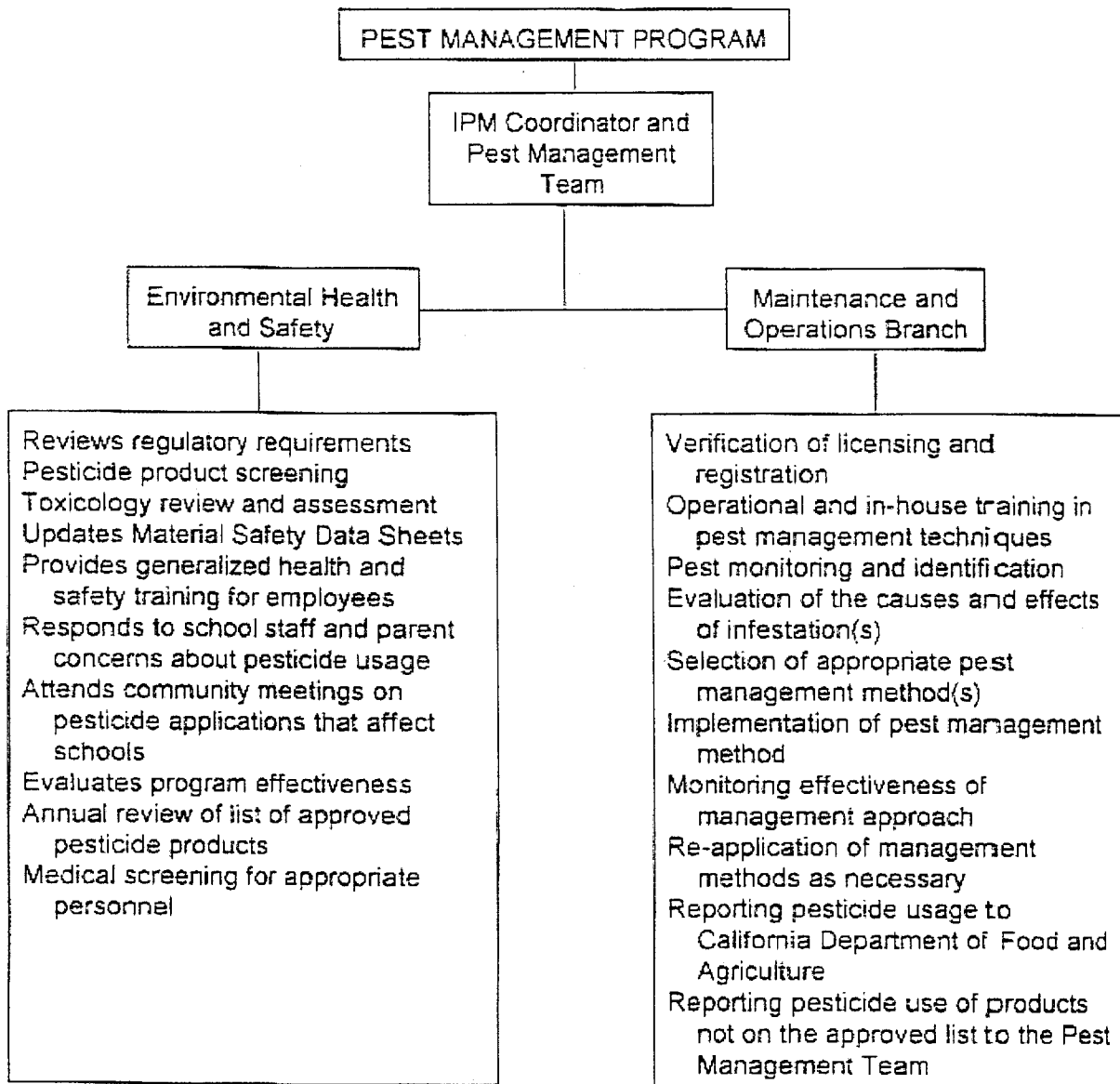
- No pesticide product is free from risk or threat to human health, and
- Industrial producers should be required to prove that their pesticide products demonstrate an absence of the risks enumerated in paragraph two of the policy statement rather than requiring that the government or the public prove that human health is being harmed.

This policy realizes that full implementation of the precautionary principle is not possible at this time and may not be for decades. But the District commits itself to full implementation as soon as verifiable scientific data enabling implementation becomes available.

V ORGANIZATION

General Responsibilities

The Los Angeles Unified School District designated Maintenance and Operations and Environmental Health and Safety the responsibility for carrying out the Pest Management Program requirements. Figure 1 (following) outlines the Integrated Pest Management Program, responsibilities of Environmental Health and Safety, and Maintenance and Operations.



Integrated Pest Management Coordinator

The Integrated Pest Management Coordinator is the person responsible for implementation of the District's Pest Management program. District management will select this person from the ranks of existing staff. The Integrated Pest Management coordinator will assume the following responsibilities:

- Be knowledgeable of the components of the Los Angeles Unified School District Integrated Pest Management policy and this manual.
- Keep up to date with the current programs and techniques used in Integrated Pest Management by attending workshops, conferences and seminars.

- Pass on information about the Integrated Pest Management program to site administrators, plant managers, and maintenance and operations managers.
- Act as the primary contact for staff and the public about the Integrated Pest Management program.
- Understand what is expected of the Pest Management Unit. Inform the Pest Management Unit of any problems or complaints from the school sites.
- Ensure that recommendations from the Pest Management Unit for preventative action (such as keeping kitchen areas clean) are acted on through communication with appropriate management contacts.
- Chair regular Pest Management Team meetings to discuss pest management plans with the committee members, and vote on proposals for changes.
- Maintain a list of the pesticides used in the course of business within the Los Angeles Unified School District and the Material Safety Data Sheets (MSDS) for these products. This list will also be referred to as the "approved products list."
- Ensure that the Pest Management Unit keeps appropriate records of each pesticide application. The following information shall be included in the application records:

Target pest
 Type and quantity of pesticide used
 Site and building within the site
 Date
 Name of applicator

This information will be maintained in the Pest Management Unit and available for review upon request.

- Maintain a file of the sanitation reports and any other pertinent pest management records by school site. These records will be maintained in the Pest Management Unit and available for review upon request.

Pest Management Team Members

The Pest Management Team will be comprised of fifteen (15) independent members, including:

- The District IPM Coordinator
- One District non-management representative from Maintenance and Operations.
- One District representative from the Environmental Health and Safety Branch
- One District representative from the Food Services Branch
- One independent IPM expert
- Two parents of District enrolled students
- Two community members
- One public health representative
- Two environmental representatives
- One District teacher
- One District principal
- One medical practitioner

The Board of Education's Facilities Committee must approve all assignments to the Pest Management Team by a simple majority of all members. Selection of the initial Pest Management Team nominees was the responsibility of the groups whose members participated in and attended at least two (2) of the Policy Development Committee meetings. Thereafter, a member of that slot's constituency will submit nominations to the Pest Management Team to fill vacant positions. Pest Management Team membership will be solicited through the spotlight, recognized parent and teacher's organizations, unions and through notification and outreach to other independent community groups. Nominations will be screened by the Pest Management Team, then submitted to the Facilities Committee for approval at a public meeting.

Pest Management Team members will be randomly divided into two (2) classes of seven (7) and eight (8), comprised as closely as possible of equal numbers of District staff and non-District staff Pest Management Team member constituencies. The seats of the first class shall be vacated after the expiration of the second year, of the second class at the expiration of the third year, so that approximately one-half may be chosen every year. If vacancies happen by resignation or otherwise, the Facilities Committee may make appointments to fill the vacated seats consistent with the fifteen (15) constituency groups. With the exception of the first team of the second class, Pest Management Team terms will be two (2) years.

Decision Making Process

The Pest Management Team will provide guidance and verification regarding procedures, program implementation, and will recommend resolutions when this policy conflicts with other District policies. A quorum of ten (10) members must be present to convene a meeting. Decisions will be made by a simple majority of all Pest Management Team members voting at meetings. The Pest Management Team will decide the frequency of team meetings.

Pest Management Objectives

As stated above, pest infestations will be managed to a level that they do not adversely affect the learning environment or the health and safety of the students, staff or the general public. Action thresholds, a predetermined point at which action is taken to reduce a pest population, will be determined by:

- visual inspection
- monitoring areas with methods such as glue traps, and follow up inspection

Pest reduction actions include sanitation, elimination of harborage areas, and moisture management. These actions will reduce pest population as the sources of food, water and shelter are eliminated.

Food handling areas generally have the highest priority for action on a school campus due to health concerns associated with pest infestations. These areas include kitchens, serving areas, student and faculty dining rooms, outdoor lunch pavilions, and home economics classrooms. Some school sites may also operate a student store where food items are stored and sold.

The second highest priority is classrooms and other occupied areas on the school campus. Infestations in these areas may cause safety and health concerns, and may also be disruptive to the learning environment. Outdoor areas are generally the lowest priority for pest management concerns, although priorities may change depending on the level of risk a pest represents in any given area. For instance, bees and fleas pose health risks to students and would, therefore, demand higher priority. Pigeon and other bird infestations cause unsanitary and unhealthy environments, and would also represent a high priority pest problem.

Designating Pest Management Roles

The concepts and methods of Integrated Pest Management were developed originally in agricultural settings. Later it was found that Integrated Pest Management had great value in urban pest management as well. The interactions between the people involved in the Los Angeles Unified School District pest management system are the key to the success or failure of the program. When the respective roles of all persons identified and agreed upon, and when these people communicate well with each other, effective protection of the sites and people can be achieved with reduced risk.

For the District's pest management systems to be successful, people must function effectively as occupants, pest managers or decision-makers. Each must gain the information they need, provide the information others need, cooperate with each other, and fulfill their special responsibilities to achieve the unique pest management objectives of the site. These functions and responsibilities are identified below.

The Occupants: Students, Staff and Parents

Occupants are concerned about the safety of the pest management methods used and their effectiveness. School staff, students, and their parents will receive notification as required under the Policy, and shall receive specialized training in accordance with the language of the Policy. They should also receive information regarding their role in the pest management system.

Sanitation and Elimination of Pest Harborage

The most important responsibility of the occupants (students and staff) is sanitation. Extremely small amounts of crumbs, grease or water can meet the food and water needs of most pests for many days or weeks. Much of the prevention and reduction of pest infestations depends on clean up of food leftovers, food in lockers, gum under desks, paper clutter, proper housekeeping, and performing good maintenance. Kitchens, where food is prepared, and dining rooms, where food is consumed, are particularly vulnerable to pest infestation. Special attention should be given to cleaning cooking utensils and appliances after each meal, and storing food in pest-proof containers. Food supplies should be rotated first in, first out. Food and standing water should not be left out overnight. All spaces should be thoroughly cleaned and vacuumed, and wet garbage and other trash removed from the premises often.

Observation and Early Detection of Problems

Since school occupants spend a great deal of time at their site, they should be aware of signs indicating the presence of pests. These signs must be noted and reported to the person on site responsible for reporting Maintenance and Operations' needs. At most sites, this will be the Plant Manager. This person will call the Trouble Call Desk at (213) 763-2906. The trouble call operator will forward the request to the Pest Management Supervisor, who will help in the detection and management of pests. Signs of infestation include live or dead insects, rodents, holes in paper or cardboard food containers, brown spots in corners of cabinets or woodwork, gnawing or scrambling sounds in the walls, "salt and pepper" droppings, fine sawdust piles, or olive-pit shaped droppings.

Other actions such as cleaning and limiting where food is stored and consumed may be required of or be undertaken by District students and staff, depending upon interest in the site, interest in the pest management system, and the nature of the assistance required at the site. The more that school occupants "buy in" to the Integrated Pest Management program at their school site, the better the system will work.

Parents have a Special Role in the Integrated Pest Management Process

Parents have the most responsibility for their children and they are their children's natural advocates. Thus, they can bring the need to reduce dependence on pesticides to the attention of school personnel, and they can assist greatly in the transition to an Integrated Pest Management program.

Parents' first school pest management responsibility is to learn about and follow Integrated Pest Management practices at home so that pests are not carried to school

in notebooks, lunch boxes, clothing or in the children's hair. Second, parents should be aware of the current pest management practices in their children's school. The school administration should welcome questions by the parents and encourage the parents to seek information. Visible interest and concern on the part of the parents is a valuable resource and stimulus for the implementation of the District school Integrated Pest Management program. Parents should express their views to the Site Administrator and/or the Pest Management Unit. Parents may also participate on the District's Pest Management Team.

Managing the Pests: The Pest Manager

The District's Integrated Pest Management Coordinator is responsible for the overall supervision and oversight of the pest management system. However, the Operations Program Coordinator and the Pest Management Supervisor are the people who observe and evaluate (or direct others to do so) the extent of the pest infestation and the site environment, and decide how to achieve the site management objectives. The Pest Management Supervisor designs a pest management system that takes into account applicator and occupant safety, effectiveness, customer or occupant concerns, potential liability, time required and costs. The Pest Management Supervisor also performs the necessary pest management actions or directs others to take action.

The Pest Management Supervisor draws on knowledge gained through training, experience and information from communication with the site-based staff. The Pest Management Supervisor uses information on the site environment, the pest and its biology, occupant health and concerns, appropriate management measures, and expected results.

Response to Occupant Pest Observations

Occupants have the means to report any signs of pest activity. Notify the person on site responsible for reporting Maintenance and Operations needs (usually the Plant Manager). This person will contact the Trouble Call Desk (213-763-2906) and the Pest Management Supervisor will assign a Pest Management Technician to respond quickly to such observations upon receipt of the trouble call.

Communication between Pest Managers and Occupants

Good communication, both oral and written, plays a vital role in the success of an Integrated Pest Management program. Communication between pest management technicians and occupants will help to solve pest problems more effectively.

Oral communication begins with the report of the pest problem to the Pest Management Technician. The occupant should report the pest problem as accurately as possible, so the Pest Management Technician has a clear understanding of the issues when he/she arrives at the school site. The occupant should give the following information when reporting the pest problem:

- Location code of the site with the pest problem
- Specific location(s) on the school site where the pest has been a problem
- The type of pest (if known)
- The severity of the infestation
- The priority of the call (emergency, urgent or routine)
- A contact person for the technician to see

Although the location code of the school site is basic information, an incorrect location code reported with the pest management call will result in delayed service. Specify the proper and accurate location code when the call is originated. Sometimes two or more locations share the same site, and use different location codes. In this case, be certain that the appropriate location code is used.

Give specific areas of the school site where the pest has become a problem. Give room numbers or name the areas affected (cafeteria, auditorium, main office, etc.). Do not report that the entire school is experiencing a pest problem. The pest management technician can solve the pest problem more efficiently if the area of concern is narrowed down to a specific location.

Specify the type of pest creating the problem. Be as specific as possible. For example, "a pigeon infestation in the outside lunch area" is more descriptive than "birds outside." If the caller knows the species of the pest, this information is helpful to the technician. With better information prior to visits to the site, the Pest Management Technician is more likely to have the proper tools and materials available to solve the problem.

Give an accurate description of the priority this call should receive. "Emergency" calls are reserved for situations that cause immediate danger to students or staff members. Some emergency situations include bee swarms, snakes, rodents observed in food service areas or classroom areas, and dead animals under buildings. "Urgent" situations may include problems that disrupt the learning environment in a classroom or pose an immediate obstacle in the daily functions at the school site. "Routine" calls include pest infestations that do not pose any immediate threat to safety or health, and are not causing major program disruption.

Communication from the Pest Management Technician to the occupants normally begins upon visitation to the school site. The primary communication will be with the person designated on that site as the contact person in the pest management trouble call. However, Pest Management Technicians will visit the main office and speak with the site administrator during each visit, if the administrator is available.

Initial communication will determine the specifics of the pest management problem. Key information needed by the Pest Management Technician includes where the problem is located, who is involved, cultural factors involved, and environmental conditions present that cannot be easily observed. This communication should start prior to inspection of the premises.

In food service areas, the Pest Management Technician will also review the pest sighting log maintained by the Cafeteria Manager.

After inspection of the problem area, the Pest Management Technician will communicate his/her findings with the site designee and/or the Site Administrator. This communication will include the following:

- What pest problems are present at the designated areas.
- What steps the school site staff need to take to help prevent or eradicate the pest problems. This may include sanitation, restricting eating areas, elimination of harborage areas, and maintenance items.
- Behavioral practices including eating, storage and sanitation routines that may adversely affect integrated Pest Management efforts.
- Recommendations on correction of any of the above items, and recommendations for exclusion work to

restrict access by pests and prevent future infestations.

After verbally communicating these items to the Administrator and/or the Administrator's designated person, the Technician will provide an inspection report to outline the problems and recommended solutions. The recommendations will include any structural, sanitation, and chemical methods necessary to solve the problems. The Pest Management Technician will assist the school administration by making necessary trouble calls to maintenance for repairs needed to improve moisture management, sanitation, pest exclusion, and modification or elimination of harborage areas. Mechanical methods, monitoring for pest activity, exclusion work, and pesticide treatments to be performed by the Pest Management Unit will also be scheduled at this time as needed.

Prior to leaving the site, the Pest Management Technician will note all Integrated Pest Management related work performed on the Integrated Pest Management Site Log in the main office. This log will be kept current. The Pest Management Technician will review the Integrated Pest Management Site Log on each visit to determine if follow-up is necessary on previous work, to determine the effectiveness of the action taken at the site, and to ensure that proper notifications and posting have been made, as required under the IPM policy.

Inspect and Monitor the Sites

Pest management staff will routinely inspect all cafeteria or food service sites and take appropriate pest management actions on a quarterly basis. In addition, the Pest Management Supervisor will assign a Pest Management Technician to respond to occupant observations by conducting a thorough inspection of the environmental

conditions of the site. This inspection will reveal how the site provides the biological needs (food, water, shelter) for pest populations, where pests are located, and the size of the pest population. Monitoring of the area will also help the technician determine the size, type, and extent of the pest population on the site.

Identify the Pests

The Pest Management Technician identifies the pest (to species, if possible) and determines the necessary sanitation and exclusion methods, and biological and physical methods that can be used to achieve the pest management objective.

Identify Preventive Measures

School occupants will be advised of their responsibilities in pest management, including vacuuming, sanitation, removal of clutter, handling wet garbage, food storage methods, and other cultural means to remove what pests need to survive in the site.

Make Recommendations

Some necessary actions to be taken, such as repair of leaks and exclusion measures may not be the responsibility of the Pest Management Technician. The Pest Management Technician will write recommendations for necessary repairs or exclusion to the Maintenance and Operations area responsible for the site. The Maintenance and Operations area will then respond to the repair request.

Manage the Pests

The Pest Management Technician should take whatever physical means are needed to manage the site's environment and pest populations, which may include the use of a low risk pesticide, if necessary.



IV PESTICIDE PRODUCT USE

Approval Process

The Pest Management Team, following a careful review of contents, precautions and low risk methods, must first approve products for routine use in the Los Angeles Unified School District. These approved products comprise the Approved List.

Purchasing of pesticides to be used on Los Angeles Unified School District property or sites requires the approval of the IPM Coordinator. Only District licensed pest management staff are authorized by the IPM Coordinator to bring or apply pesticides on District sites or property; no site-based employees are permitted to bring or apply pesticides on District property.

Products will be divided into two classifications:

- Products approved by a simple majority of all the members of the Pest Management Team members at team meetings for use at the discretion of the Pest Management Technician within the guidelines of this IPM program. This will be referred to as the "Approved List." Products on the approved list will adhere to the "Pest Management Methods and Product Selection Guidelines."
- Use of products other than those on the approved list requires the written approval of the IPM Coordinator and the team's independent IPM expert when reduced risk methods are unsuccessful. Information on the use of products not on the approved list will be provided to the Pest Management Team so that these pesticide applications may be reviewed on a case-by-case basis at the next scheduled Team meeting.

Pest Management Methods and
Product Selection Guidelines

Pest management methods and product selection will be based on the following principles:

- In embracing the Precautionary Principle, the District will use only those pest management methods or products demonstrated to be the safest and lowest risk to children, and strive to use products that demonstrate an absence of the following health effects: cancer, neurological disruption, birth defects, genetic alteration, reproductive harm, immune system dysfunction, endocrine disruption and acute poisoning.
- In those instances where pesticides fall outside of these specific guide-lines, the District's decisions on pest management methods or product selection will conform to the spirit and intent of this policy and these guidelines.
- The District will use only those pest management products that can be applied in a manner and at a time where no person will inhale or come into direct contact with them, or be exposed to volatile agents.
- The approved list and categories listed below will be reviewed and approved annually by the Pest Management Team.

Only products that fall within the following categories will be placed on the approved list:

- Insecticide or rodenticide baits and traps
- Caulking agents and crack sealants
- Borates and silicates
- Soap based products
- Products on the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) 25(b) list [40 CFR 152.25 (g)(1)] or the



California Certified Organic Farmers' organic list

- Cryogenics, electronic products, heat and lights
- Biological controls such as parasites and predators
- Microbial pesticides
- Insect growth regulators
- Physical barriers

Notification, Record Keeping and Reporting

The District will notify parents, employees and students of all pesticide applications using the following guidelines:

Annual Notification

The District will provide annual notification to parents or guardians in the "Registration Packet" distributed at the beginning of each school year or upon enrollment. Notification will include:

- The IPM Policy statement
- The approved product list (**Appendix D**)
- The availability of IPM activity records in the Main Office of each school (**Appendix E**)
- A request that parents or guardians notify the school principal if their child's health and/or behavior would be influenced by exposure to pesticide products.
- A mechanism by which parents or guardians can request notification of all pesticide applications performed at the school site (**Appendix F**).

The Approved Product List

The approved product list will be conspicuously posted annually in the Main Office of each site and remain posted throughout the year.

Products not on The Approved List

Applications of products not on the Approved List will be preceded by a 72-hour notification to parents or guardians and school staff, except for emergencies as determined by the IPM Coordinator and the Team's independent IPM expert. In emergency situations, every effort will be made to give prior notification. Notification will include:

- The product name and active ingredient(s)
- The target pest
- The date of pesticide use
- The signal word indicating the toxicity category of the pesticide
- A contact source for more information
- The availability of further information at the school's Main Office
- The Pest Management Supervisor will maintain records to inform the Pest Management Team of the use of products not on the "Approved List."

Signs

Signs shall be conspicuously posted around any area where pesticides not on the approved list are to be applied in a non-emergency situation at least 72 hours before and for five (5) half-lives after any pesticide application. In the event of an emergency, posting will go up at the time of application, and shall include the information as indicated above (see sample sign in **Appendix H**).

For products on the approved list a warning sign shall be posted in the area of the facility or grounds where pesticides will be applied. The warning sign will include:

- The term "warning/pesticide treated area" prominently displayed
- The product name
- The signal word indicating toxicity category of the pesticide
- The manufacturer's name
- Active ingredient
- U.S. Environmental Protection Agency's product registration number
- Intended date and areas of application
- Reason for pesticide application and target pest
- Date sign may be removed
- Contact phone numbers for additional information

The warning sign shall be visible to all persons entering the treated area and shall be posted 24 hours prior to application and remain posted until 72 hours after application.

Provide Risk Communication

The Pest Management Supervisor will communicate any potential risk from the pest or pesticide use to the occupants and the school administrator or designee. This communication will include the following:

- An approved pesticide list. This is a list of pesticide products approved for use by the Pest Management Technicians. The "Approved List" is distributed annually in school registration packages and is posted in the Main Office.

- Pest Management Technicians will consult with the site administrator or the administrator's designee prior to any pesticide application.

72-Hour Notice for use of Pesticides not on the Approved Products List

If pesticide products are to be used that are not on the approved product list, the following rules apply to their use:

- Pest Management Technician will consult with the Pest Management Supervisor prior to application to obtain approval to use "non-approved" pesticides.
- Post notices as required at the school site, including:

"Pesticide Application Posting" notice. This notice shall be posted on the school site in the area of application every time a non-approved pesticide will be used on the school site. For non-emergency applications, this notice will be posted at least 72 hours before the application. In emergency situations, the notice shall be posted as early as possible. Notice will remain posted on site for five (5) half-lives of the product used.

Additional notifications are required as follows:

72-hour notification of pesticide use (product not on the "Approved List"). This document must be sent home with students at least 72 hours before application of a non-approved product, for non-emergency applications. The Pest Management Technician shall provide the notification to the site administrator for distribution to the students and staff in a timely manner to ensure that the 72-hour notification is achieved (see Appendix I - 72-hour notification).

Site Activity Log. The Site Activity Log is a document maintained on each school site to record actions taken by the Pest Management Unit. The technician will make an entry in this log on every visit to the site, including the date, pest activity, action taken, reason, and the technician's name. This Site Activity Log will be maintained in the Main Office of each school site.

The pest management system for the site should achieve the goals within the limitations posed by safety, time, budget and materials available. Pest Management Technicians monitor the site's environment and pest population to determine if actions taken were successful, and keep accurate records of any pesticides used, the amounts and treatment dates for each site.

VII DECISION MAKERS

The Board of Education establishes the overall policy and funding for the Integrated Pest Management program. The Pest Management staff, under the guidance of the IPM Coordinator, is responsible for the implementation and administration of the IPM policy, and for making decisions regarding the appropriate methods to manage pest problems. Requirements by others, such as the Los Angeles County Health Department, may impact decisions. In addition, concerns about health, safety, method effectiveness, liability, cost and customer or occupant satisfaction impact decisions. As previously noted, the Pest Management Team's role is to provide guidance and verification regarding procedures and program implementation, and to recommend solutions when the IPM policy conflicts with other District or regulatory policies.

The IPM Coordinator and support staff must determine if the pest management objectives are being met and if the Pest Management Technicians are performing at an acceptable level through monitoring complaints from site occupants, observation of the site environ-

ment, or by a combination of both. If not, the Pest Management Team should assist the Coordinator with development of recommendations for changes in policy, procedures, and/or funding necessary for the IPM program to succeed.

The decision-makers increase the chances of implementing a successful IPM program by performing the following:

Develop a Pest Management Plan. The site administrator and pest management staff should develop a pest management plan to resolve any given pest problem. The plan should include at least the eight (8) steps of a successful IPM system, as follows:

- Define roles of occupants, pest managers and decision-makers
- Set pest management objectives
- Set pest management action thresholds
- Inspection and monitoring of sites
- Habitat modification
- Appropriate low-risk pesticide application
- Evaluation of results
- Good record keeping

A good pest management plan will ensure the success of implementing Integrated Pest Management at a site.

Providing Maintenance Procedures. Proper maintenance of site buildings will eliminate opportunities for pest populations to develop. Routine maintenance includes leak repair, exclusion measures to keep pests out, and provision for timely garbage removal.

Recommendations of a professional pest manager. The Pest Management Technician should be a professional who knows the

biology and behavior of pests and will make recommendations for structural changes, repairs and innovative approaches that will economically achieve long-term pest management without the risks of excessive pesticide use.

A great deal of understanding, cooperation and commitment from everyone in the system – students and parents, all school staff, managers, administrators and the public – is needed for an IPM program to succeed.

VIII EDUCATING INTEGRATED PEST MANAGEMENT PARTICIPANTS

The District's IPM program includes a commitment to the education of the students and staff, and to the parents of the students. IPM principles will be taught to staff including teachers, school nurses, cafeteria employees, housekeeping and administrative employees. All occupants must understand the basic concepts of IPM and who to contact with questions or problems. Specific instructions should be provided on what to do and what not to do. For example, staff should not bring and use pesticides on their own in the school. Pesticide applications, including those purchased at a retail store, should only be made by designated District Pest Management Technicians who are certified and licensed pesticide applicators.

Educating and training staff to function within an IPM context is important to the success of an in-house IPM program. NOTE: More specific training is required for the Pest Manager.

Training for Integrated Pest Management Participants

District personnel, students and parents have roles and responsibilities in the IPM processes. Training of the participants is

necessary to adequately familiarize each participant with the role and responsibility they will play in the success of the IPM program. Training will be specific to the job and/or responsibility of the participant, and will include IPM philosophy, pest identification and pest risks. "Train the trainer" courses will be designed for supervisory employees who will be required to provide IPM training to staff.

Operational training will be provided on an annual basis for IPM participants. The type of amount of training provided is based on job classification, and will include principals, administrators, pest management technicians, gardeners, carpenters, electricians, floor covering installers, HVAC fitters, painters, plumbers, roofers, sheet metal workers, plant managers, area operations supervisors, cafeteria managers, teachers, students and the community (PTA).

Pest Management Technicians and Gardeners will receive an initial 40 hours of practical training on IPM practices as they relate to their respective duties. Pest Management Technicians will also receive specific product training as new products or methods are introduced. Annual refresher training for Pest Management Technicians and Gardeners will consist of four hours of practical training in IPM practices. This training will supplement routine monthly safety training.

Carpenters, electricians, floor covering installers, HVAC fitters, painters, plumbers, roofers and sheet metal workers will receive initial three-hour training in IPM as it relates to their respective classifications. Annual one-hour refresher training will be provided the employees in these classifications.

Area operations supervisors and cafeteria managers will receive "train the trainer" instruction in IPM. This will consist of initial six-hour training with two-hour annual refresher courses.

Plant managers will receive six-hour initial IPM training with annual four-hour refresher courses.

Principals, administrators and teachers will be provided lectures and information handouts on their roles in IPM. Students will be given a written informative. The community, through the PTA, will be provided awareness training in IPM.

Training Program for Pest Management Technicians

The practical pest management training for Pest Management Technicians will be more comprehensive than the training provided for other participants, as the training will focus on specific tasks that the technician performs routinely. This includes inspection of facilities, identification of insect species, exclusion techniques, sanitation, moisture management concerns, various pest management methods, notification, record keeping, establishing pest threshold levels, pest population monitoring and tracking of pest infestations. Practical training will be administered in both classroom settings and practical (on the job) training courses. This training will be scheduled as needed, through monthly training sessions.

Pesticide health and safety training includes classroom instruction on reading and understanding pesticide labels, health and safety hazards, personal protective equipment, safe work procedures, personal hygiene, emergency spill or contamination procedures, common symptoms of pesticide poisoning, emergency medical information, medical examination, and applicable laws and regulations. The pesticide health and safety training is an annual training.

The pesticide health and safety, and operational training will be performed by a combination of the Pest Management Supervisor, industry experts, and Los Angeles Unified School District Health and Safety Officers.

IX SETTING PEST MANAGEMENT OBJECTIVES FOR SITES

A pest management objective is like a road map for pest management. It tells what we are trying to accomplish (where we are going) and when we have done enough. The pest management objective should be as specific to the school site as possible, considering the occupants, conditions, pest problems and resources available.

Pest management objectives will differ among sites and must be considered before setting action threshold levels. For example, with an athletic field, the objective would be to maintain aesthetics as well as a specific type of playing surface; i.e., grass length. With ornamentals, the objective would be strictly aesthetic value. With structures, the main objective might be controlling damage caused by termites. Pest managers for schools and other sites should clearly identify specific objectives in pest management plans.

Examples of Pest Management Objectives

"Manage pests that may occur on this site to prevent interference with the learning environment of the student; eliminate injury to students or staff; preserve the integrity of the school buildings or structures; and provide safe playing of athletic surfaces."

or

"Manage termites that may occur in the site to prevent or minimize damage to buildings, using appropriate monitoring, remedial, and preventive methods that also minimize injury or health risks to occupants or staff, and preserve the integrity of the site buildings and structures."

In managing pests to a level where they do not have adverse impacts upon health and property, "zero" pest presence may not always be possible. However, with the

utilization of IPM principles and practices, very low levels (near zero) of pest presence can be achieved with reasonable expenditure of money, time and material.

Realistic tolerance for the presence of pests is relative to the risk posed by exposure to that pest. A rat in a classroom is not tolerable and requires immediate action. However, the fruit fly or termite does not pose a threat to life, and may not call for immediate action. Individual tolerance for certain pests should be considered in establishing thresholds for each pest.

Setting Action Thresholds

An action threshold is a predetermined point at which action is taken determined by sensitivities of the occupants, and should reflect the pest management objective for the site. When pest populations exceed action thresholds, action should be taken to manage the pest. Precise recommendations or actions to achieve specific results are an essential part of an IPM program.

Specific recommendations for the management of the pest should be based on the evaluation of all available data obtained through monitoring. The presence of some pests does not in itself necessarily require pesticide action. An explanation of the risks and benefits of the pest and management methods will be discussed with the decision-makers involved.

Inspection and Monitoring

The identification of pests and the determination of the extent of infestation are vital steps in the District's pest management procedure. Eliminating the pest's desired habitat is another important step in IPM. Once the pests have been identified and the sources of their activity have been pinpointed, habitat modifications – primarily exclusion, repair and sanitation efforts – will reduce the prevalence of pests greatly.

An IPM program consists of a cycle of inspection, monitoring, evaluating, and choosing the appropriate method of pest management. Sites are inspected for evidence of pests, entry points, availability of food, water and harborage, and estimating pest infestation levels. Monitoring the sites can determine whether the pest population is increasing or decreasing over time, the extent of infestation, and the size (approximate number) of the pest population. The information attained through monitoring is evaluated to determine whether the action threshold has been exceeded and what type of prevention methods should be performed.

School occupants' reports and observations of the site will also give the Pest Management Technician an idea of the size of the pest population. An astute observation will provide signs or actual sightings of the pests for identification. On the basis of such information (to species, if possible) information can be obtained about the behavior and preferred habitat of the pest, and what methods will achieve management of the population.

All organisms have basic life needs including air, moisture, food, warmth, harborage and environments that will meet these needs. Unfortunately, buildings and grounds are constructed and maintained in ways that provide pests with access and environments that encourage pests to remain and multiply. Further, occupants and staff sometimes do not keep kitchens and other spaces adequately clean, which can invite and support pest populations.

One of the primary goals of an effective pest management program is to identify realistic and economically sound ways to eliminate those elements pests need for survival. Deny harborage, food and water to pests and those that enter the environment will not thrive. Neglecting any of these methods strengthens the pests' ability to survive and flourish.

Who Monitors for What Conditions

Occupant observations and reporting. The school occupants (teachers, students and staff) are in perhaps the best position to observe pests that occur within the school. Observations of pests, or their damage, should be reported to the person on site responsible for reporting maintenance and operations' needs. This person should call the Trouble Call Desk at (213) 763-2406 to allow the Pest Management Supervisor to conduct an inspection and monitor the location and extent of the pest population, and determine the corrective actions to be taken.

An IPM Site Activity Log (Appendix E) will be provided to all schools to note pest sighting. This log should be maintained in a notebook in the Main Office for review by the Pest Management Technician on subsequent visits to the site.

Maintenance observations and reporting. While performing inspections or repairs, the maintenance staff also has opportunities to observe the presence of pests or the results of their activities. These observations should be reported to the Pest Management Supervisor to assign a Technician to conduct a thorough inspection. Upon inspection and evaluation of the situation, the Technician can plan a course of action necessary to eliminate the problem. Maintenance observations should also be recorded in the IPM Site Activity Log.

Pest Management Technician's inspections and observations. The Pest Management Technician should schedule periodic inspections at each site to determine that sanitation standards are maintained and to detect any environmental conditions that may be conducive to the presence of pests. Inspection and monitoring in an IPM program are the most important functions of the Pest Management Technician.

Conditions that support pests

Air. The oxygen in air is basic to the maintenance of most life forms. In most situations at a school site, removing the air, or the oxygen it contains, is not practical. However, in some instances, removing the oxygen from a sealed container or replacing the air with a gas toxic to life may be necessary to manage a large or hidden infestation.

Moisture. Water is a basic element of life. Elimination of leaks, condensation and other moisture sources will reduce pest infestation and damage.

Food. Although many insects can go without feeding for a long time (weeks or months in some cases), eliminating access to food will reduce their number. Thus, keeping food in pest-proof containers, good sanitation and exclusion are important aspects of managing pests.

Shelter. Small, concealed and protected places that insects and other pests can use may provide shelter and harborage. Preventing access to these shelters by caulking or other exclusion methods will reduce available shelters. The Pest Management Technician should notice conditions that provide shelter to pests so action can be taken for their elimination.

Temperature. Most organisms have a relatively narrow range of temperatures within which they can function. Low and high temperatures can be lethal to insects, whereas temperatures between 65°F and 90°F enable insects to function well and reproduce rapidly. Observing temperature ranges can indicate potential pest growth rates.

Light. Many insects and other pests are active in the absence of light. Thus, the presence or absence of light can be a pest

management tool. Observation of light conditions and placement of light can give clues to pest presence or potential.

Inspection and Monitoring Methods

"Inspection and monitoring" includes the initial site survey and subsequent ongoing surveillance by the Pest Management Technician to determine the presence and harborage of pests, as well as the physical and human factors to decide what action and treatment measures are needed to reduce key pests to a manageable level.

To inspect or monitor effectively, the Pest Management Technician conducting the inspection must have proper monitoring tools, including a flashlight, a clipboard, pen and paper to record and diagram information, a pocket knife, a screw driver, and a hand lens to examine pests, pest droppings, exoskeletons and damage found. In addition, the Pest Management Technician should have a ladder available to access equipment, ceilings, attic spaces and otherwise inaccessible areas for inspection purposes. Additional monitoring tools include sticky traps, pheromone lures, glue boards or snap traps which assist in determining current pest activity, the degree of infestation, and routes of entry. The Pest Management Technicians should communicate essentials of the monitoring plan with the occupants of the site to prevent mishandling of the traps, lures or glueboards placed in the areas monitored.

The Pest Management Technician may use many monitoring tools to assess the level of pest infestation. Since some pests are elusive, monitoring tools may be in place for some time. These tools may capture the pest for counting (cockroach sticky traps) or merely note the presence of infestation (tracking powder). Some monitoring tools may attract pests from a long distance, so placement is very critical to avoid inviting more pests from outside the managed site. The monitoring methods provide data, over

time, which are recorded and enable the Pest Management Technician to select the methods to achieve the desired level of management.

Inspecting the Exterior

A complete inspection of the exterior and the interior of the site are essential to identify the degree of specific pest problems and to provide insight as to the reasons and origins of the problems.

Site inspections should begin with the exterior of the facility. Evidence of insect and rodent infestation, damage, poor sanitation and the presence of breeding and harborage areas in the exterior environment will often help to interpret pest findings within the structure.

Exterior inspection must include not only the immediate perimeter of the facility but must extend to take in the overall environmental conditions and how they relate to the facility. The overall environment inspection should include adjacent vacant lots, roofs, parking lots, refuse areas, drainage ditches and sewer lines, among other areas. Inspect and record structural problems including cracks, holes, excessive moisture, and other structural deficiencies that may lead to infestation. Landscape conditions including excess vegetation, debris, general sanitation, and landscape runoff should also be considered. Environmental conditions that affect pest management are noteworthy and include exposure to the wind, rain and sunshine.

Inspecting the Interior

Interior inspections require the complete inspection of all potential breeding and harborage areas. These areas include, but are not limited to, kitchens, receiving areas, dining rooms, storage areas, doors, classrooms, teacher lounges, computer rooms, refuse areas, ceilings, administration offices, locker rooms, custodial closets, heat

ducts, ventilation systems and elevator shafts. Obvious sources of breeding and harborage such as cracks, voids, crevices, debris, unrotated supplies, water leaks, spillage and sanitation problems should be identified and recorded.

Evaluation involves the objective review and analysis of the information gained through the inspection, monitoring and identification process, as well as the subjective insight gained from past experience in dealing with similar pest situations.

Landscape Monitoring

Monitoring is the most important part of the ornamental IPM program. Regular monitoring avails the pest manager to the information necessary to fully assess plant health and make rational pest management decisions. Basic information on the environmental factors, cultural conditions and pest populations are required to accurately predict pest population development and the potential for damage to plant material. The use of biorational pesticides, other biological agents, and beneficial arthropods is fully dependent on these regular observations.

Detecting and evaluating the numerous factors that contribute to loss of plant health, function and beauty requires a year long systematic approach to monitoring. These diverse factors may be classified as either cultural, environmental or pest related. The effects of environmental factors and the cultural conditions on pest development are the major concern.

The first step in this monitoring system is the initial site visit and evaluation. This visit may be conducted at any time of the year, but a dormant season visit may be best. Dormant season visits allow the pest manager to carefully inspect the landscape and plant material during the time of the year when insect and plant life are less active. Plant inventories and landscape maps can be completed during this visit. Plant health status and most

cultural conditions may also be evaluated.

Many pest problems can be observed during the dormant season. Observations made at this time may help determine potential pest problems that may occur during the growing season. Pest management strategies may often be planned in advance. For example, azaleas growing in sunny locations are highly susceptible to lace bug. Having determined this potential pest problem in advance, the pest manager can begin monitoring early for this pest and detect the first signs of activity.

Unacceptable levels of mite damage on evergreen plant material and scale insect populations observed during these visits may indicate the need for dormant oil applications. Unfavorable cultural conditions observed during these visits may be remedied before the growing season begins. These initial visits are essential during the beginning stages of the IPM implementation. After the program has been established, annual dormant season visits will suffice.

Monitoring programs should be flexible to take into account variable environmental and cultural conditions and differences between sites. The number of visits and the timing of visits should be determined by the plant material and existing or potential pest problems at individual sites. This type of flexibility may not always be practical, but should be followed as closely as possible. Keep in mind that it is better to make too many visits to a site than too few.

During the growing season, monitoring visits should be regular and frequent. Fewer than ten monitoring visits per season allows an unacceptable amount of time to pass between visits. Pests with rapid reproductive capacities such as spider mites and lace bugs may cause serious damage if not monitored frequently. The fewer the monitoring visits, the greater the margins for error, and any misdiagnoses or overlooked problems are likely to spread into serious conditions.



The monitoring season should begin at bud break for most plants and extend into fall until pest activity ceases. Monitoring may begin earlier if certain pests of conifers are present. If dormant oil applications are to be made, earlier visits may be necessary to determine the best time for these applications. Monitoring should continue until all pest activity has ended in late fall. Spider mites, lace bugs and sawflies are active during cool autumn weather and will cause permanent damage to evergreen plants if they are not adequately managed during the fall months.

IPM programs rely on regular monitoring (also called scouting or inspecting) of the plants to be protected. The inspector should be knowledgeable in plant, insect, mite and disease identification and management. In addition to the insect and mite pests, the inspector also should be able to identify predators and parasites that aid in pest management.

The suggested interval for monitoring landscape plants is every two weeks, depending upon weather conditions. When inspectors find a pest population buildup, they must evaluate the problem. The following is a list of questions the inspector should consider when performing this evaluation:

- How many pests are present?
- How soon will this pest complete a generation and produce eggs for the next generation?
- How many more inspections are scheduled for this site before another generation is produced?
- Are predators or parasites present and will they be effective in managing this infestation?
- How much damage can the plants tolerate and how much damage will the

school community tolerate?

- Are there cultural or management practices that will reduce pest activity without pesticides?
- Are there effective pesticides labeled for use on the plant and can they be spot treated in a way that minimizes exposure to students and staff, or damage to beneficial organisms?

A detailed discussion of many of these questions can be found in several texts on the subjects of IPM and biological management.

The conscientious, knowledgeable IPM practitioner will learn how to evaluate many of these questions by making careful notes in a field log book about the appearance times of diseases, pests and beneficial organisms, as well as soil, temperature and moisture conditions. Careful observations also should be made and recorded regarding attempted management methods. After reviewing these notes for a few seasons, the technician will begin to see that many problems and their solutions are relatively predictable. The use of a computer to store and analyze these data will facilitate the development of an IPM program.

X HABITAT MODIFICATION

General

Habitat modification is a term used to describe changes made to a site in order to reduce the number of pests the site can support. Living organisms need to have air, water or moisture, food or nutrients, adequate temperature, secure hiding or resting areas, and light for plant growth. These things make up the habitat of a site. By manipulating the access or availability of these necessities, the "habitat" can be modified to such an extent that the site is no longer attractive to the pest, or the site no longer supports the pest's life. Habitat

modification can take many forms and is usually directed toward the "life style" of a specific pest to be managed.

Maintenance

Good maintenance practices should include habitat modification. Maintaining the structural integrity of a building is excluding pests from entering the building.

The maintenance activities that repair leaks and other moisture management activities are modifying pest habitats that are reliant upon water. Temperature control can slow or increase the growth of fungi and molds. A good example is an interior humidity control. The lower the humidity, the fewer pests can live in a site. Good cleaning or sanitation practices will also reduce the carrying capacity of a site for pests.

Exclusion is another habitat modification that will reduce the capacity of a site for pests. Keeping food stored in pest proof containers such as glass or metal containers with tight fitting lids prevents pest access to food. Tight door sweeps keep crawling insects and rodents from entering. Similarly, repair of masonry and holes in walls and floors prevents potential pest access.

Changing the behavior of personnel who occupy the site is another means of habitat modification. Getting people to use trash receptacles, and removing trash at the close of business can be beneficial. Removing or rearranging clutter can improve the habitat to make it less desirable for pests. Convincing occupants to clean up after themselves has great benefits.

Modification of the landscape can also prevent or reduce pest presence. Keeping turf properly mowed to four inches reduces habitat for broadleaf weeds and ticks. Planting pest resistant varieties of turf and ornamental trees and plants also reduces pest presence and makes pest management

easier. Proper watering regimens, fertilizing, and aeration of turf prevents insect, disease and weed pests on the site. If mulch is used, decorative rock is more desirable than wood mulch next to the building to reduce suitable habitat for rodents, termites and other pests, and also helps manage moisture around the building.

Physical controls can be instituted to manage pest populations, such as: installing screens, air doors, light traps, fencing, proper pruning of foliage, netting or tension wires to exclude birds, sticky traps, lethal snap traps, chimney screens, metal flashing, weather stripping, caulking cracks and crevices, and mosquito nets. Other desirable habitat modifications include moving stored materials outside away from the building, keeping tight lids on garbage cans, and frequent emptying of trash containers.

Biological changes of the habitat can include interplanting to repel pests, introduction of insect predators and parasites.

As you can see, there are many means to modify the habitat to make the site less attractive to pests, and to deny them the necessities for life.

XI MAINTENANCE AND SANITATION

Architectural Integrity

The architect that designs a building or structure should consider the prevention of pests in addition to the structural integrity, usefulness, and aesthetics of the building. If the architect is knowledgeable of water and moisture management, and includes these considerations in the building design, a large part of the battle to prevent pest invasion is won. Pest harborage can also be eliminated with proper architectural design. Window ledges and other structural artifacts should be designed at sufficient angle to eliminate attractive sites for bird nests or roosting.



Construction Practices

Construction practices also can contribute to the ease of maintenance and sanitation of the structure, and to prevent pest invasion. Knowledge of the site's previous condition can help determine specific construction practices to follow. A site previously covered with a forest or extensive woody plants is expected to have an abundant population of termites, mice and other potential pests. Planning construction should consider means to prevent termite and other pest penetration of the structure. Design to provide preventive measures for long-term results. Structural wood timbers, joists, and framing can be treated with borates to prevent wood-destroying organisms. Removing the roots, scrap wood and paper from the site avoids providing food for termites. Assuring all entry points into the structures fit tightly to prevent access by crawling or flying insects, or rodents. Door sweeps should fit tightly when doors are closed. Openable windows should have insect-proof screens. Site landscaping should allow water to run away from the structure, and ornamental plants and trees should be kept away from the building to prevent bridges that can be used by pests to access the building. Kitchens and bathrooms should be well caulked to provide good moisture management and to exclude pests from hiding places such as cracks and crevices. Quality materials and workmanship are important.

Maintenance

Maintenance of the structure and site plays a key role in a pest management plan. The importance of this role must be understood, not only from the standpoint of maintaining the structural integrity, usefulness and aesthetics of the site, but also from many aspects of the management of pests that may attempt to overcome the defenses of the site.

The first line of defense for a structure is the exclusion of pests from entering the

structure. Unfortunately, the design, construction practices, and human activities within the structure provide an attractive habitat for invertebrate and vertebrate organisms that interfere with human objectives, and thus become pests. "If you keep them out, they can't get in!"

Good exclusion of pests from the structure can mean placing tight fitting screens on operable windows to exclude flying insects, applying a good coat of quality paint on fascia boards to exclude carpenter bees, or installing tight fitting door sweeps to exclude crawling insects and mice. As structures age, they develop many openings available to pests. Cracks in masonry joints or cement, weathering of paint, or breaks in windows or screens should be repaired to prevent pest invasion. Keeping roof drains and gutters clear of debris can prevent breeding sites for aquatic insects such as mosquitos, and reduces moisture availability for other pests.

Exclusion also includes preventing pests that get inside the structure from gaining access to moisture, food or harborage. Repairing leaks, insulating cold water pipes to prevent condensation, and caulking around sinks and restroom fixtures are important to prevent access to moisture. Providing tight food storage can also prevent pests' access to nourishment. Caulking cracks and crevices, repairing holes in walls and masonry, and generally keeping things "ship shape" can prevent pest access to harborage. All are important to pest management.

Housekeeping

It is said that: If our bosses and the housekeeping staff were to leave for a month at the same time; we would miss the housekeeping staff first, and the most! Housekeeping is a very important aspect of site maintenance and pest management. The removal of food and other trash to the dumpsters (which are kept closed) at the close of business each evening is very

important to prevent pest access overnight from food and harborage. Additionally, the housekeeping staff is in all parts of the structure daily in their cleaning duties, and has many opportunities to observe pests or the results of pest activity. Housekeeping staff should be trained to recognize insects, rodents and other pests, and their droppings or damage from their activity, and to report observations for the pest manager to act upon. The pest manager may also suggest ways that the housekeeping staff can enhance the effectiveness of the pest management actions through more careful or directed cleaning methods. Pesticides cannot overcome dirty conditions in a building. Housekeeping procedures need to be thorough, with attention to details to assist in keeping a school site pest free.

Sanitation

Sanitation includes removing food, water and harborage from access by pests; and also removing or killing pathogens that may be present as a result of pest activity or other organisms. Sanitation is of critical importance in food handling or food service facilities. Kitchens in schools sites must have quality maintenance, housekeeping and sanitation.

Food Handlers' Responsibility

Estimates show that at least one half of the healthy population carries potentially virulent staphylococci in the nose, throat, mouth, and on the skin. Poor personal hygiene magnifies the problem and is said to cause 95% of the sanitation problems in the food business. Sneezes, improper or infrequent hand washing, carelessness in appearance, bad habits and poor health can contaminate food with pathogenic microorganisms. While a food service manager has an important role in screening applicants and enforcing the state health code, the burden of responsibility rests in the employee's integrity when nobody is looking.

Proper dress contributes to good pest management. Protective clothing should be light colored and cleaned every day. A dirty apron easily harbors bacteria that can be transferred from hands to food. Don't wear jewelry or hair ornaments while working. They can drop into food or provide breeding grounds for bacteria. Men should be clean shaven. Store clothing in clean lockers and change at work. It is recommended that you don't wear uniforms to and from work where they can pick up bacteria and dirt. Hair should be washed frequently and kept neat. Bathe at least once daily. Change undergarments daily.

The key principle is **watch your hands**: whenever possible substitute a utensil, piece of equipment, or protective device for using your hands. After you touch an unclean or unsanitary object or part of the body, and always before touching food, wash your hands by scrubbing for at least 20 seconds and rinsing the hands briskly. Keep your physical appearance and health up to par -- clean uniform, restrained hair, clean skin and hair, and stay home when ill. Kitchen managers are responsible to instruct employees in proper personal hygiene measures and observe their actions. In addition, good personal hygiene should be made as convenient as possible for employees.

Food Contamination

All food is contaminated to a certain extent. If contaminated to a dangerous level, it is **adulterated**, or unfit for human consumption. Food is considered adulterated if:

- a potentially hazardous food is held at 40° - 140°F for more than two hours;
- there is **excessive contact** during preparation or service;
- there is **rodent or insect contact** or infestation;



- it is exposed to **toxic substances or filth**;
- it is exposed to any condition that permits the **introduction of disease-causing microbes or foreign matter**.

Pathogens are disease-causing organisms. They are often present in food, but can reproduce to many millions under ideal conditions.

Microorganisms responsible for contamination are:

- bacteria
- fungi (molds, yeast)
- viruses
- protozoan
- worms in the cyst stage or larval stage

Bacteria

Description

Bacteria are the single-celled, living microorganisms that are responsible for the majority of food-borne illnesses.

Shape

Round bacteria are called cocci. When they form clusters, they are called staphylococci; when they form chains, they are called streptococci.

Rod-shaped bacteria are called bacilli. Some produce endospores, inactive cellular material with a protective coating that can survive more adverse conditions than the rest of the bacterium can handle. In other words, reheating stock may kill everything but the spores.

Fungi

A fungus is a plant that is not green and has a high tolerance for acid conditions. Fungi include yeast and molds.

YEAST

Description and reproduction

Yeast are single-celled, oval-shaped and reproduce by growing a sack until it breaks off, a process called "budding."

MOLD

Description and reproduction

Molds are the most adaptive of microorganisms in that they can grow in a wider range of environmental conditions (temperature, pH, moisture). These multicellular organisms reproduce by means of exospores found on thread-like structures called hyphae. The spores are transferred through the air and on clothes, while the hyphae remain on the food as a fuzzy growth.

Viruses

DESCRIPTION: A virus, translated "poison" in Latin, is the smallest living organism and has neither a cell wall, cell membrane, nor nucleus. A viral particle is crystal-like and is extremely small. A virus is the most resistant form of disease.

Protozoans

DESCRIPTION: Protozoans are single-celled organisms such as the amoeba, paramecium, and vorticella. They are indigenous to soil, water, and the intestines of animals.

Worms

DESCRIPTION: Certain worms can and will go into a dormant stage. They will later "break out" after being swallowed and invade the muscle tissue.

Chemical, physical, and biological substances can all cause food-borne illnesses, either by contamination within the

food (intoxification) or within the human intestine (infection). All food has some pathogens on it; however, food that is high in moisture, protein, and is an animal source is extremely susceptible to the multiplication of pathogens.

Bacteria are responsible for the majority of food-borne illnesses and thrive well where there is warmth, darkness, moisture and an available food source. Because bacteria grow best in warm temperatures (from 40° - 140°F), it is essential to hold foods above 140° and below 40°F. Cool and reheat quickly, watch for cross-contamination of raw and cooked food, maintain good personal hygiene, and cook to proper temperatures when reheating to kill the spores that survived the first cooking and have grown in number.

Specific measures should also be taken to avoid food contamination due to fungi, worms, viruses, and protozoans.

Refrigeration

Refrigeration slows the growth of bacteria and extends the lag phase, but will not kill existing bacteria. A lack of air circulation will distort temperatures and hasten chemical changes in food, so your refrigerator should be large enough to support the bulk of your food with shelves two inches from walls and the bottom shelf of the refrigerator six inches from the floor. In walk-ins, store food away from walls and floor to prevent insect infestation and increase air circulation. Clean refrigerator at least once a week, and more often if heavily used. Smooth corners and slatted, non-corrosive, removable shelves make your job easier. The refrigerator should not show signs of excess condensation and should be kept in good repair.

Freezer Storage

The freezer should be easy to clean, insulated and sealed to prevent

condensation. Defrost often. Keep freezer at 0°F or lower. Because food can deteriorate in the freezer, wrap food so it is moisture-proof and no dehydration, freezer burn, or odor absorption will occur. Do not refreeze once thawed. Put food in freezer right after delivery, labeling it with the month and year date of freezing. Remove only what you need as you need it, not holding the door open for a long time.

Use storage areas for their sole purpose: storage. Date all foods upon receipt, identify by common name and maintain an accurate inventory with a first-in, first-out policy. Stock must be rotated; do not put new cans on top of old cans, or new meat in front of old.

Products should be wrapped in clean wrappers that are moisture-proof and airtight to prevent dehydration and prevent insect infestation. Temperature and humidity of storage area must be monitored carefully; area should be aerated and have no evidences of condensation. In addition, keep all products off the floor so areas can be cleaned and sanitized. Shelves and transporting vehicles should be sanitary as well.

Dry Storage

Dry storage comprises nonhazardous food with low perishability: canned food, spices, condiments, cereals, and staples such as flour and sugar. Date all food upon receipt and store away from perishable food and non-food items (soaps, paper, cleaners). Keep food at least six inches off the floor and away from the wall. Temperatures ranging from 60 - 70°F and 50 - 60% humidity range are adequate. Good ventilation and insulation will guard against temperature extremes.

Make sure storage area is clean. Dry food, particularly grain and cereal, is particularly susceptible to insect infestation. Rotate your stock and adhere to the first-in first-out policy (FIFO); if new cans are placed on top of old

cans, the old cans may never be used. Make sure all cans and dry food are labeled to avoid mistakes, especially if transferred to another container. Containers should be moisture-proof. Don't hold food longer than six months at 70°F.

There should be no sewer pipes in the storage area because of possible leakage. Steam pipes or hot water pipes can condense and change room temperature, so make sure they are insulated. Storage rooms should be adequately lit, but avoid direct sunlight which might increase room temperature, change the color of the food, and cause spoilage. Storage areas should be easy to clean; painted or sealed concrete floors with no crevices are best. Enamel paint is wiped easily. Shelves are preferred to be slatted metal that will not rust since wooden shelves absorb moisture and are hard to clean. The outside door should be screened and self-closing to prevent entrance of flies and other flying insects.

Floors and Walls

Floors should not be porous since bacteria can breed in these environments and cannot be removed easily. Terrazzo, linoleum and vinyl are nonabsorbent; concrete, if used, should be sealed.

Other factors to consider are:

- Does it stain easily?
- How much care and upkeep does it require?
- Is it slick when wet, especially in high-traffic areas such as behind the production line and in warewashing stations?
- Is it durable?

Paint walls with glossy, non-toxic paint for ease of cleaning. Never keep a dry wall unpainted. Use a light color on walls so soil

will be visible. Ceramic tile is a popular kitchen wall option, but keep grouting smooth and in good repair. Always check for possible entrances for rodents or insects.

Equipment

Equipment should be easy to clean, have no sharp corners, crevices, or toxic surfaces that chip easily. If equipment is to be connected to the wall or another piece of equipment, make sure it either allows enough space in between the wall and the device to be cleaned, or is sealed with a non-toxic sealer. If the equipment is on a counter and cannot be lifted by one person, thus discouraging good cleaning, mount it on legs. Whenever possible, utensils should not be hung over food preparation area and should be allowed to air dry before stored. Glasses and cups are stored upside down.

Garbage Management

Again, effective sanitation measures begin before food is delivered to the facility and don't end until after the food leaves. Garbage can contaminate surrounding areas, permeate grounds and kitchens with odors, and attract and harbor pests if not stored and disposed of correctly.

All garbage stored indoors should be in containers that are easily cleanable, don't leak, and are large enough to hold whatever waste is accumulated. Clean the receptacle with detergent and hot water often, far away from the food preparation area. If the container is near utensil washing or food preparation area, keeping a tight-fitting lid on it when not in use is recommended.

Outdoor garbage is stored in dumpsters and other containers, either on flat, nonabsorbent surfaces such as asphalt and concrete, or elevated at least 18 inches off the ground. Setting out a plastic bag for garbage is similar to sending out an invitation to all neighboring rodents to come and partake. Compactors and pulpers can reduce the

amount of garbage.

A prime factor in choosing and designing the surrounding environment of a food service operation, as well as the equipment, should be how well it promotes good sanitation practices. Floors and walls should not be cracked or porous. If possible, equipment should not have any areas that are inaccessible to cleaning and sanitizing or have sharp corners, crevices, or toxic surfaces. Store garbage in clean, closed containers away from food preparation area. On the outside of the facility, store garbage on flat, nonabsorbent surfaces or elevate at least 18 inches off the ground. Maintain good ventilation, adequate lighting, enough electric outlets, correct water pressure and temperatures, as well as air gaps and vacuum breakers to prevent contaminating water.

Cleaning and Sanitizing

To "clean" and to "sanitize" do not mean the same thing. When food or other material is taken off a surface where it doesn't belong, the surface has been cleaned. If the amount of bacteria has been reduced to a safe level, the surface has been sanitized.

As a general rule, clean and sanitize anything that has come into contact with food, or if there has been a great time lapse between uses.

There are four different kinds of cleaning agents:

- **Soap** removes soil, but also doesn't rinse well and leaves residue if the water is hard.
- **Alkaline detergents** are synthetic detergents which are highly rinsable and chemically compatible with other compounds.

- **Abrasive cleaners** are designed to clean corroded metals and some porous surfaces. Again, these may scratch some surfaces.

Cleaning may remove visible soil, but it does not kill bacteria. There are two ways to kill bacteria:

- **Immerse in hot water.** Regulations usually state approximately 170°F for 30 seconds.
- Either immerse object in **chemical sanitizing compound** for one minute, or spray or rinse with twice the sanitizer concentration recommended.

Three types of sanitizers are:

- **Chlorine-based sanitizers** are inexpensive but corrosive on some metals.
- **Iodine-based sanitizers (iodophors)** are expensive and can stain porous objects and plastics, but have good penetration.
- **Quaternary ammonium compounds (or "quats")** are odorless, colorless, non-corrosive, have good penetration, a long shelf life, and are effective in both alkaline and acidic solutions.

Cleaning schedules help ensure jobs get done as often as needed. A manager should take responsibility in:

- Listing what needs to be done as an inventory.
- Making sure supplies (plastic gloves, brooms, mops, pans) are adequate and stored away from food.
- Designing a cleaning schedule that includes:

Specifically what is to be cleaned;

Who cleans - each employee should take care of his own cleaning and large jobs should be rotated;

When cleaning is to take place and how often. Schedule cleaning during off-peak hours if possible. Include a regular bathroom inspection throughout the day.

- Posting cleaning instructions near items or machines.
- Informing employees of procedures.
- Supervising subsequent action.

Simply removing material off a surface where it doesn't belong (cleaning) does not necessarily reduce the amount of bacteria to a safe level (sanitizing). Consider the type of soil, water and surface to be cleaned when choosing either soap, alkaline detergent, acidic, or abrasive cleaners. To kill bacteria, either immerse the object in 170°F to 180°F hot water for 30 seconds or in chemical sanitizing compound at approximately 75°F for one minute. Quaternary ammonium compounds seem to be the most effective sanitizers. If available, use a three-compartment sink to wash, rinse, and sanitize. Managers should post cleaning schedules and instructions, and supervise subsequent actions.

Pest Management

As in all other areas of sanitation, "an ounce of prevention is worth a pound of cure." Pesticides, traps, and other killing measures are only temporary weapons and the pests will return if sanitation methods are sloppy. The "integrated pest management" concept focuses on prevention rather than relying on treatment. Knowing a pest's vulnerabilities and habits will help keep your facility from becoming infested.

To avoid infestation, take away what pests crave:

- **Food and moisture:** Clean thoroughly and dispose of garbage frequently so there is no available food supply. Wipe up spills immediately and sweep up crumbs. Nuts, cocoa and powdered milk should be refrigerated.
- **Access to facility:** Check all incoming boxes for cockroaches or egg cases, or stored product pests, and remove as soon as items are unpacked.
- **Shelter and warmth:** Fill in all crevices and cracks. Store food away from walls and floors, and maintain good ventilation.

Prevent access to facility by screened doors that are kept closed on the outside with tight fitting door sweeps. It is a good practice to cover garbage and remove every four hours. It is recommended to keep food covered and the facility free from crumbs and spills.

Keep rodents out. Examine for any external openings or weak masonry and correct. Vents, basement windows, and drains should be covered with screens. A thick concrete wall that extends downward and outward from the foundation can compensate for decaying masonry. Don't let them hide. If possible, elevate garbage containers and store food at least six inches off the floor. Starve them by removing garbage, cleaning spills immediately, and sweeping regularly.

Preventive pest measures are far more effective than quick cures "after the fact." Wipe up spills and crumbs frequently and store food away from floors and walls. Check all incoming boxes, and fill in all crevices and cracks in walls to prevent insect infestation. Flies, which are dangerous carriers of disease, can be kept out with screened doors (keep closed) on the outside

of the facility. Elevated garbage containers and strong masonry will also discourage rodents.

Hazard Analysis and Critical Control Points

Food service personnel trained in sanitation can use the HACCP approach to safeguard against a food-borne illness outbreak. The HACCP approach, *Hazard Analysis and Critical Control Points*, assumes basic knowledge of sanitation as it relates to food service processes. The relationships between time, temperature, food and microbiology are paramount.

The first aspect of the HACCP concept deals with identifying the sources of hazards and the conditions that create outbreaks. As noted elsewhere in the text, the hazards are pathogenic microbes such as viruses, bacteria, molds, yeast, and parasites. Other hazards include particulates such as hair, slivers of glass, nail polish chips, pieces of jewelry; while other hazards can be chemical in nature, such as cleaning agents, pesticides, and bisulfites.

Conditions that allow hazards to manifest themselves are:

- human error in handling products, such as cross-contaminating a non-potentially hazardous food like fish with green leaf lettuce on a cutting board.

- inadequate or poorly maintained equipment, such as a refrigerator that is too small to properly cool hot or warm food for storage.
- an ineffective plan or strategy to deal with sanitation, such as an untrained staff.
- a poorly designed facility in terms of structural components, equipment, and their deployment.

In a school food service facility, standards should be set to assure quality of product to the consumer. This is done by managing the identified hazards. In a process, the hazards are typically pathogenic bacteria that have to be managed. The methods are those steps that we identify from the beginning, when we first receive the food, to the point we serve it to the consumer that are most likely to put the public at risk. Clearly evaluating each step of storing, handling, and serving as it relates to sanitation can drastically reduce the risk. Those steps that require attention based on this evaluation are the **Critical Control Points**.



APPENDIX A

PESTICIDE LAWS AND REGULATIONS

REGULATORY REQUIREMENTS

State and federal laws and regulations control many aspects of the manufacture, sale, transportation and use of pesticides.

At the federal level, the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) provides the basic regulatory framework governing pesticides. It was first enacted in 1947, and has been amended many times since. The original act required pesticides to be registered and labeled and provided for pesticide inspections. However, it did not regulate pesticide use, nor apply to pesticides manufactured and marketed solely in one state.

In 1972, Congress amended FIFRA to provide for a broader regulatory program, covering all pesticides used in the United States. FIFRA now requires the U.S. Environmental Protection Agency (EPA) to determine whether a pesticide "will perform its intended function without causing unreasonable adverse effects on the environment or human health."

In California, laws regulating pesticide use and pest control are part of the California Code of Regulations (3 CCR, 6700-6146). The California Department of Food and Agriculture (CDFA) enforces these regulations. Appendix B contains specific requirements that pertain to the health and safety protection of District pest management personnel.

At the county level, agricultural commissioners develop pesticide use policies or conditions specific to the needs of their counties. However, these policies or conditions must be approved by CDFA before they can become effective.

In California, regulations regarding vermin in food establishments are part of the California Health and Safety Code, Section 27603. The Los Angeles County Department of Health Services, Environmental Health Section, enforces this regulation.

APPENDIX B

RESPONSIBILITIES OF GOVERNMENT AGENCIES

This chart summarizes the responsibilities of the CDFA, county agricultural commissioners, and other state and federal government agencies.

Responsibilities of Government Agencies in California's Pesticide Regulatory Program

PROGRAM	RESPONSIBLE AGENCY
Registration of Pesticides	U.S. Environmental Protection Agency California Department of Pesticide Regulation
Classification of Pesticides	U.S. Environmental Protection Agency California Department of Pesticide Regulation
Permitting	County Agricultural Commissioner California Department of Food and Agriculture
Licensing of Commercial Applicators, Advisors, Pesticide Application businesses, Dealers and Maintenance Gardeners	California Department of Food and Agriculture
Registering applicators and advisors, certifying private applicators	County Agricultural Commissioner
Regulations Governing Pesticide Use and worker Safety	County Agricultural Commissioner California Department of Food and Agriculture California Department of Health Services
Pesticide Illness Investigation	County Agricultural Commissioner California Department of Food and Agriculture California Department of Health Services
Pesticide Disposal and Storage	County Agricultural Commissioner California Department of Food and Agriculture California Department of Toxic Substances Control California Water Resources Control Board
Protection of Wildlife	County Agricultural Commissioner California Department of Fish and Game California Department of Food and Agriculture U.S. Fish and Wildlife Service U.S. Environmental Protection Agency
Citing or Prosecuting Violators	California Department of Food and Agriculture County Agricultural Commissioner California Attorney General/District Attorney
Vermin Control in Food Establishments	Los Angeles County Department of Health Services

APPENDIX C

PESTICIDE REGISTRATION AND LABELING

Every pesticide product sold or used in California must be registered with the U.S. Environmental Protection Agency (EPA), as well as with the California Department of Pesticide Regulation (CDPR). The registration of pesticide products is necessary to provide for the proper and safe use of pesticides in protecting people and the environment from ineffective or detrimental chemicals.

PESTICIDE REGISTRATION

The registration procedure at the federal level begins with the manufacturer submitting to the EPA test data, an application to register the product, draft labeling and tolerance petition for food use pesticides.

A general use pesticide is one that can be sold without permit and can be used by the general public. A restricted use pesticide is one that can only be sold to and used by qualified pesticide applicators or by persons holding a valid permit from a county agricultural commissioner.

Pesticides that are to be sold or used in California must also obtain registration from CDPR. Registration procedures require the applicant to submit proof of EPA registration and all data and studies in support of EPA registration. CDPR performs an independent review of these data and also considers other factors such as carcinogenicity, wildlife toxicity, the analytical methods used to determine the materials present and the availability of workable alternatives.

In addition to EPA restricted use pesticides, the State of California designates certain EPA classified general use pesticides as restricted use pesticides due to local hazards or specific health problems. A permit from

the county agricultural commissioner is required for all California restricted use pesticides. However, certain use exemptions are allowed.

PESTICIDE LABELING

To complete registration, the manufacturer must supply a label meeting all federal and state requirements. Labels are legal documents that contain important information for the user. Labels may also refer to other documents, such as material safety data sheets that must be considered part of the label.

The following information is required by the EPA (40 CFR Part 156) to be on a label:

Brand Name

The name the manufacturer has given to the product for all advertisement and promotion.

Chemical Name

Describes the chemical structure of a pesticide and is derived by chemists based on international rules for naming chemicals.

Common Name

Chemical names of active ingredients in a pesticide formulation are often complex. For clarity, most pesticides have been assigned official common, or generic, names. Common names and brand names are not the same and not all labels will list a common name for the pesticide.

Formulation

Pesticide labels always list the formulation type, such as emulsifiable concentrate,

wettable powder, or soluble powder. Manufacturers may include this information as a suffix in the brand name of the pesticide. For example, in the name Princep 80W, the "W" indicates a wettable powder formulation.

Ingredients

Pesticide labels list the percentage of active and inert ingredients. Active ingredients are those components that have, or synergize, pesticidal activity. Inert ingredients are all components of the formulation that do not have pesticidal action. Inert ingredients can be toxic, flammable, or pose a safety or environmental hazard. If a pesticide contains more than one active ingredient, the percentage of each will be given, but all inert ingredients may be grouped together and not specified.

Contents

Labels list the net contents, by weight or liquid volume, contained within the package.

Manufacturer

Pesticide labels always contain the name and address of the manufacturer of the product. Use this address if you need to contact the manufacturer for any reason.

Registration and Establishment Numbers

The Environmental Protection Agency and the State of California assign numbers to each pesticide as it is registered. In addition, the EPA establishment number is a code, which identifies the site of manufacture or repackaging of a pesticide.

Signal Word

An important part of every label is the signal word. The word "Danger," accompanied by the word "Poison" and a skull and crossbones, or the word "Danger" used alone, indicates that the pesticide is highly

toxic or poses a dangerous health or environmental hazard (Toxicity Category I). "Warning" indicates moderate toxicity (Toxicity Category II) and "Caution" means low toxicity (Toxicity Category III). Part of the registration process assigns each pesticide to a toxicity category and prescribes which signal word must be used on the label.

Precautionary Statements

Precautionary statements are used to describe the hazards associated with a chemical. Instructions given in a precautionary statement should always be followed. Three areas of hazard may be included in the statements:

- Hazards to people and domestic animals.

This section tells why the pesticide is hazardous, what adverse effects may occur, and describes the type of protective equipment that one must wear while handling packages, and mixing and applying the pesticide.

- Environmental hazards.

Indicates if the pesticide is toxic to non-target organisms such as honeybees, fish, birds or other wildlife. It may also contain information on how to avoid environmental contamination.

- Physical and chemical hazards.

Describes special physical and chemical hazards associated with the pesticide such as risks of explosion if the chemical is exposed to sparks or hazards from fumes in the case of a fire.

Statement of Practical Treatment

The statement of practical treatment tells what to do in case of accidental exposure. It describes what emergency first aid measures to take when the pesticide contacts skin,



splashes into eyes, or if dust or vapors have been inhaled. This section also tells when to seek medical attention.

Statement of Use Classification

Pesticides are classified by the EPA as either "General Use" or "Restricted Use," based on the potential of the pesticide to cause harm to people, animals or the environment. EPA restricted use pesticides have a special statement printed on the label in a prominent place. Pesticides that do not contain this statement are considered general use pesticides, although special state restrictions may apply. This information can be found on the CDFA list of state restricted use pesticides, available from the county agricultural commissioner. Labels may also have a restrictive statement indicating that they are for agricultural or commercial use only. A restrictive statement is different from a statement of use classification.

Directions for Use

The directions for use list all the target pests that the pesticide has been registered to manage, plus the crops, plant species, animals or other sites where the pesticide may be used. The directions may also include special restrictions that must be observed. These instructions tell how to apply the pesticide, how much to use, where to use the material, and when it should be applied. It is a violation to use pesticides in a manner inconsistent with the label unless federal or state laws specify acceptable deviations from label instructions.

Misuse Statement

The misuse statement reminds users to apply pesticides according to label directions

Re-entry Statement

Sometimes restrictions apply to the time that must elapse before a person can enter an area treated with a pesticide. This re-entry interval is included on the pesticide label or in state regulations. There may also be other state or local restrictions which apply. Re-entry intervals may vary according to the toxicity and special hazards associated with the pesticide and the type of pest being treated, and may even vary from county to county. If no re-entry interval is given, the treated area can usually be entered once the spray dries or the dust settles.

Storage and Disposal Directions

Directions for proper storage and disposal of the pesticide and empty pesticide containers are another important part of the label. Some pesticides have special requirements. Improper storage causes the pesticide to lose its effectiveness or may cause a safety hazard. Pesticides must always be stored out of reach of children and animals in locked and posted areas. Proper disposal of unused pesticides and pesticide containers is essential to reduce human and environmental hazards. Federal, state and local regulations control pesticide disposal.

Warranty

Manufacturers usually include a warranty and disclaimer on their pesticide labels. This information informs you of your rights as a purchaser and limits the liability of the manufacturer.



APPENDIX D

Los Angeles Unified School District Integrated Pest Management Approved Pesticide Products List

PESTICIDE NAME	ACTIVE INGREDIENT	PHYSICAL FORM	APPLICATION METHOD	TARGET PEST	USEPA TOXICITY CATEGORY	LABEL PRESCRIPTION	COMMENTS	EPA REG NO	Original Discussion
4 in One Thick, Transparent Bird Repellent	(1) polybutene 80%	Solid	Sticky type bird repellent	Pigeons	3	Caution	Use for low populations in isolated areas.	9254-150	OK
Advance Granular Ant Bait	abamectin 0.1% 11%	Granule	Indoor & outdoor granules used in 1000 applications	Ants	3	Caution		4291-370	OK
Alone Insect Sex Pheromone Lure, P.T. 4	mcg	Lure	Funnel catch trap for pheromone	Food storage pests	III	III		INDUSTRIE	OK
Ascend Fire Ant Bait (Formula 1)	abamectin 0.1% 0.05%	Solids	Indoor & outdoor granular bait	Fire, Pharaoh, eastern Ants	3	Caution		491-070	100 of 10 approved
Avast Cockroach Bait	abamectin 0.1% 0.05%	Bait Puck		Cockroach	3	Caution		499-467	OK
Baitings									
Avast Cockroach Gel Bait (Formula 1 and Formula 2)	abamectin 0.1% 0.05%	Gel	Crack & crevice bait	Cockroach	3	Caution	Bait attractant	499-408, 499-410	OK
		Formula 2 pressurized formula 2 spray dust							
Avast Crack & Crevice Bait (Dust)	abamectin 0.1% 0.05%	Granular	Bait bait	Cockroach	3	Caution	Bait attractant	000-293	OK
Avast Window Corn	4-aminopyridine 0.5%	Granular	Mixed with cracked corn for pigeon disorientation	Pigeons	3	Caution	Restricted use product. Used only when staff & students are not in the immediate area.	1984B-7	74 of 12
Bioblast Biological Fertilizer	emulsiatum Amplicon Stearn 50%	Powder	Biological fungicide spread in terraces	Termites	2	Warning		61295-1	OK
Burgame Weeds & Grass Killer	Egynol (Clove Oil) - 5%, Thymol 5%, Hyssop Oil - 0.5%, Sodium Lauryl Sulfate - 1%	Liquid	Colony spray	Weeds	IIIA	IIIA		EPA exempt	100 of 10
Biozone Broadleaf Weeds	Stearns 03 - 4%, Sodium Lauryl Sulfate - 1%, Erythrol (Clove Oil) - 0.5%, Hyssop Oil - 0.5%, disodium octaborate tetrahydrate 40%	Liquid	Spray	Broccoli Weeds	IIIA	IIIA		EPA exempt	100 of 10
Bura Caro Termite, Insecticide and Fungicide Concentrate		Liquid	Spray travel for wood boring insects	Termites	3	Caution		54405-1	OK
EB AT MAX Roach Bait	Oxthozone Acid 50%	Gel	Crack and crevice application	Roaches	3	Caution	Protein and Carbohydrate Bait	9443-162	100 of 10
Contract All Weather Cake	bromadiolone 0.003%	Pellet	Resistant bait	Roaches	3	Caution	Used infrequently in bait	12455-34	OK
Delta Dust	Deltamethrin 0.05%	Powder	Dusting burrows	Fleas	3	Caution	Slight	437-772	100 of 10 with limited approval 19-01, vol 117 of 17
Densar EC	Lealeol 97%, Piperonyl butoxide 40%	Liquid		Fleas	3	Caution	Pest Supp. to approve each use and distribute. Team to be notified at following meeting.	4158-181-57076	100 of 10 with limitations
Dustan IGR	Pyrimethanil 0.1%	Granule	Local at restaurants	Fleas	3	Caution		1021-1728 50639	100 of 10, use 1-19-01 team appr by 1001 0 111 allow general use
Dux Ant Kill Gel	methidathion acid 5%	Gel	Indoor sugar based bait	Ants	3	Caution		9143-131	OK

Los Angeles Unified School District
Integrated Pest Management
Approved Pesticide Products List

PESTICIDE NAME	ACTIVE INGREDIENT	PHYSICAL FORM	APPLICATION METHOD	TARGET PEST	USEPA TOXICITY CATEGORY	LABEL DESIGNATION	EPA REG. NO.	Original Manufacturer
Ensoak 25, Plant Growth Regulator	abscisic acid salt of methyl 20%	Liquid	Overall spray, plant growth regulator for leaf feeding insects	Fruit blossoms	3	Caution	32217-755	90% of 10
Gas Cartridge (for Harrowing Rodents)	Sodium nitrate 53%, Chlorine 20%	Cartridge	Apply Gas & seal in burrows	Ground Squirrels	2	Warning	56228-2	100% of 10
Genetrol Mini Block	diflufenican 0.0025%	Solid	Use as directed in label	Roots	3	Caution	7173-218	90% of 10
Genetrol 15K Concentrate	hydroflufen 9%	Liquid	Use as directed in label	Conifers, Grasses, Shrubs, etc.	2	Warning	2724-351-50810	OK
Genetrol Plant Source	hydroflufen 10.6%	Ampule	Use as directed in label	Conifers, Grasses, Shrubs, etc.	3	Caution	2724-459	OK
Genetrol Granular	chlorpyrifos 0.0015%, Disodium Octaborate Tetrahydrate 40%	Granule	Use as directed in label	Conifers, Grasses, Shrubs, etc.	3	Caution	CA-709466	100% of 10
Knox Out 2FM	diazinon 23%	Liquid	Used in traps and mixed with a bait	Yellow Jackets Only	3	Caution	4581-335	OK - specific use only, see labels
Maxforce Granular Insect	imidacloprid 1%	Granules	Use as directed in label	Ants	3	Caution	64244-6	OK
M-Pede	potassium salts of fatty acids 49%	Liquid	Use as directed in label	Africanized Honey Bees, Flies, and White Fly	2	Warning	53219-8	OK for bees, 100% of 10 for 10-20, 10 for 10-20, 10 for 10-20, 10 for 10-20
Orbit Granular Ball and Roll-On	Orthozone Acid 5%	Granules and Roll-On	Use as directed in label	various insects	3	Caution	184405-2	100% of 10
Roller D	Fluorfenoxycarbonyl 1%	Powder	Use as directed in label	various insects	3	Caution	04405-8	100% of 10
Hydr GR	2-Timethyl 2-(4-phenoxyphenoxy) ethyl pyridine	Liquid	Use as directed in label	flies and roaches	3	Caution	11715-307-57076	100% of 10
PT Wasp Freeze (515)	phosalone 0.13%	Aerosol	Use as directed in label	Wasps & Bees	3	Caution	409-362	100% of 10
PT Wasp Freeze XLO	d-trans allethrin 0.129%, pyrethrin 0.75%, d-transallethrin 0.25%, piperonyl butoxide 1%, n-octyl bicycloheptene dicarbodiimide 1%	Aerosol	Use as directed in label	Fleas, Gnat, Mosquitoes, Bees, and Wasps	3	Caution	409-310	100% of 10
Proach X	carbamethic acid 35%	Paste	Use as directed in label	Cockroach	3	Caution	71781-1	100% of 10
Reform-Up Flu	isopropyl alcohol 90%, diethylene glycol 10%	Liquid	Use as directed in label	Weeds	3	Caution	524-475	100% of 10 with restrictions
Suspend SC	deltamethrin 4.75%	Liquid	Use as directed in label	Fleas, Ticks, and Ants	3	Caution	432-763	100% of 10 with restrictions
Terminator	d-limonene (orange peel extract) 5.6%	Liquid	Use as directed in label	Ants, roaches, termites, fleas, silverfish, etc.	3	Caution	61887-1-33176	100% of 10
Tri-Form Professional	disodium octaborate tetrahydrate 90%	Powder	Use as directed in label	Wood destroying termites	3	Caution	64405-6	100% of 10
Wash-Up Wash 6 (No 100)	Alkaline Detergent and Sodium Lauryl Sulfate 1%	Aerosol	Use as directed in label	Wasps, Hornets, & Yellow Jackets	10A	10A	52142-140-2	100% of 10



Los Angeles Unified School District
 Integrated Pest Management
 Approved Pesticide Products List

PESTICIDE NAME	ACTIVE INGREDIENT	PHYSICAL FORM	APPLICATION METHOD	TARGET PEST	USE PA TOXICITY CATEGORY	USE PA LABEL	COMMENTS	EPA REG NO	Original Discussion
Weco Ground Squirrel Bait	2 (p chlorophenyl) 1,3 indandione 0.002%	Pellet	granular placed in runways of holes	Ground Squirrels	3	Caution	Used when cited by County Health Department	EPA SIN NO. CA-170487	9/9 of 10, 1 addition
Wolck Supreme Spray	Petroleum Oil B7 4%	Liquid	contact spray for	Horticultural insects	3	Caution		89036-20AA	10/5 of 10

APPENDIX E

INTEGRATED PEST MANAGEMENT
SITE ACTIVITY LOG

SITE NAME: _____ FISCAL YEAR: _____

DATE	PEST INVOLVED	ACTION TAKEN	REASON	TECHNICIAN

APPENDIX F

ANNUAL PESTICIDE USE NOTIFICATION

The District has adopted an Integrated Pest Management (IPM) policy. This policy includes notifying parents/guardians of pesticide use. During the school year, it may be necessary to apply pesticides at your child's school to avoid serious health problems posed by pests and/or maintain the integrity of a structure. You are notified as follows:

- An application of products on the Approved List may be applied during the school year (the attached list of pesticide products has been approved for use at District sites).
- In the event the use of a product is required and is not on the Approved List, you will be notified 72 hours in advance (Exception: Emergency circumstances that warrant an immediate response)

If your child's health and/or behavior would be influenced by exposure to pesticide products and you would like to be notified each time a pesticide application takes place at your child's school, please complete the following form and return it to the Principal.

----- Cut here and return if applicable -----

PARENT/GUARDIAN REQUEST FOR NOTIFICATION

I would like to be notified every time a pesticide application is to take place at my child's school (i.e., in addition to annual notification). I understand that the notification will be sent home with my child at least 72 hours before application.

Child's name: _____

School: _____

Name of parent/guardian: _____

Signature of parent/guardian: _____ Date: _____

Note to Principal

Forward a copy of this notice via school mail to: Pest Management Department
Central Shops
Attn: Doug Anderson



APPENDIX G

INTER-OFFICE CORRESPONDENCE Los Angeles Unified School District

TO: Lynn Roberts, Director
Maintenance and Operations

DATE:

FROM: _____ School

SUBJECT: EVALUATION OF KITCHEN CLEANING PROGRAM

The following responses are provided regarding the special kitchen cleaning performed on _____.

1. Were you visited by _____ Cleaning Crew Leader at least two weeks prior to the crew's arrival and informed as to what would take place?

Yes No If "No", please explain _____

2. Did the crew start and finish according to schedule?

Yes No If "No", please explain _____

3. Were keys obtained at least one day prior to arrival and returned to site on completion of work?

Yes No If "No", please explain _____

4. Please rate the cleaning tasks that were performed at your kitchen on this visit.

	<u>Excellent</u>	<u>Satisfactory</u>	<u>Unsatisfactory</u>
A. High dusting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Washing walls to ceiling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Washing light fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Washing Venetian blinds/fly fans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Washing windows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Washing oven hoods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Scrubbing of floors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

• Please comment on services rendered: _____

• How would you rate the overall effectiveness of the cleaning provided? _____

Excellent Satisfactory Unsatisfactory

Signature _____
Principal

Date _____

Signature _____
Cafeteria Manager

Date _____

DISTRIBUTION: White to Maintenance and Operations Branch Director, Canary to Food Services Branch, and Pink to your Maintenance and Operations Area.



WARNING

PESTICIDE TREATED AREA

An application of a pesticide was and deemed necessary to get control of pests that are invading this area.

This notice is a 24-hour (State req'd.) a 72-hour (Not on preapproved list)
 an EMERGENCY Posting

Product Name: _____ Mfg. Name: _____

Active Ingredient: _____ USEPA Reg No.: _____

Target Pest: _____

Date of Application: _____

Date Sign May Be Removed: _____ (No less than 72 hours from application)

Signal word: Danger Warning Caution

If you have questions regarding this notification or require additional information, you may contact the District's Pest Management Supervisor at (213) 763-2974, the IPM Coordinator at (213) 633-8478, or the Environmental Health and Safety Branch at (213) 743-5086.

This information as well as other IPM related records are maintained in the Main Office of the School site. You may review this information by contacting the site administrator or their designee.



APPENDIX I

PESTICIDE APPLICATION 72-HOUR NOTIFICATION

This notice is to inform you that a pesticide application is scheduled for _____ on _____
school *date*

Pesticide is on the Approved List Special application pesticide not on the Approved List

Product name: _____

EPA Registration No.: _____

Active ingredient: _____

Target pest: _____

Signal word: CAUTION (low toxicity)
 WARNING (moderate toxicity)
 DANGER (high toxicity)

Area/room pesticide is to be applied in: _____

This notification is in accordance with the Los Angeles Unified School District Integrated Pest Management (IPM) program. Further information is available at the school's main office. For technical questions regarding the product, call the Environmental Health and Safety Branch at (213) 743-5086. For questions pertaining to the IPM program, call the Pest Control Unit at (213) 763-2974.



APPENDIX J

LOS ANGELES UNIFIED SCHOOL DISTRICT PEST MANAGEMENT INSPECTION

SCHOOL: _____ LOCATION CODE: _____ TECHNICIAN: _____

INSPECTION TREATMENT FOLLOW UP RESPONSE TO TROUBLE CALL

NO PEST ACTIVITY FOUND MONITORING LOG & DIAGRAM (SEE ATTACHED)
 PEST ACTIVITY FOUND, CONTROL MEASURES TAKEN
 PEST ACTIVITY FOUND, CONTROL MEASURES INITIATED. FOLLOW UP REQUIRED/SCHEDULED: _____
 PEST ACTIVITY FOUND, SPECIAL ARRANGEMENTS FOR SERVICING REQUIRED/SCHEDULED: _____

CODE: "A" - ANTS "M" - MICE "R" - RATS "GR" - GERMAN ROACHES "AR" - AMERICAN ROACHES
"OR" - ORIENTAL ROACHES "F" - STORED PRODUCT INSECT. "O" - OTHER(SPECIFY): _____

PLACE CODE LETTER OPPOSITE NUMBER TO INDICATE PROBLEM PEST

MATERIALS USED CONC. DIL.			
1. _____	___ 1. DOORS, ENTRY	___ 8. DAIRY COOLERS	___ 15. STEAM EQUIPMENT
2. _____	___ 2. DOORS, RECEIVING	___ 9. DINING AREAS	___ 16. EXTERIOR
3. _____	___ 3. ELECTRICAL PANELS	___ 10. ICE MACHINE	___ 17. ORNAMENTALS
4. _____	___ 4. RESTROOMS	___ 11. KITCHEN, GENERAL	___ 18. _____
5. _____	___ 5. STORE ROOMS	___ 12. STOVES/OVENS	___ 19. _____
6. _____	___ 6. LOCKERS	___ 13. REFRIGERATORS	___ 20. _____
7. _____	___ 7. TRASH AREA	___ 14. SERVING LINE	___ 21. _____
8. _____			

<p>ENVIRONMENTAL SANITATION</p> <p>A. Exceptionally Clean B. Needs Improvement C. Sub Standard (See Comments)</p>	<p>COMMENTS: _____</p> <p>_____</p> <p>_____</p>
<p>REVIEWER'S FINDINGS & RECOMMENDATIONS</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Comments: _____</p> <p>_____</p> <p>Signature: _____</p> <p>Title: _____</p> <p>T/C REF# _____</p>

STRUCTURAL DEFICIENCIES
SURFACE DETERIORATED _____
LOOSE WALL COVERING _____
LOOSE BASEBOARDS OR TILE COVERING _____
HOLES/GAPS IN WALLS _____
UNSEALED CRACKS & CREVICES _____
PLUMBING REPAIRS NEEDED _____
DOOR SWEEPS/METAL FLASHING _____
OTHER _____

Technician Signature _____ Date _____ Time In: _____
Time Out: _____

Reviewers' Signature _____ Date _____

GLOSSARY

GENERAL INFORMATION:

For further definition of terms consult:

- The Federal Insecticide, Fungicide, and Rodenticide Act, as amended. Public Law 92-516 October 21, 1972, as amended by Public Law 94-140 November 28, 1975 and Public Law 95-396 September 30, 1978.
- *Federal Register*, November 7, 1990, Part II Environmental Protection Agency 40 CFR Part 171 Certification of Pesticide Applicator; Proposed Rule.
- Regional Offices of the EPA.
- State Lead Agency for the State Plan for Commercial and Private Applicators.
- Federal Agency Secretary's Office (For federal employees using restricted pesticides in performance of official duties).
- Indian Governing Body or Indian Reservation Recertification Plan Administrator.
- Local, State, and National Pest Control Associations.

ABSORPTION—The process by which a chemical or fluid is taken into the systems of human beings, plants, and animals.

ACARICIDE—A pesticide used to kill mites and ticks. A miticide is an acaricide.

ACTIVE INGREDIENT—The chemical or chemicals in a pesticide responsible for killing, poisoning, or repelling the pest. (Listed separately in the ingredient statement.)

ACUTE TOXICITY—The ability of a pesticide to cause injury within twenty-four hours following exposure. LD₅₀ and LC₅₀ are common indicators of the degree of acute toxicity. (See also Chronic Toxicity.)

ADJUVANT—A substance added to a pesticide to improve its effectiveness or safety. Same as additive. Examples: penetrants, spreader-stickers, and wetting agents.

ADSORPTION—The process by which chemicals are held or bound to a surface by physical or chemical attraction. Clay and high-organic soils tend to adsorb pesticides.

AEROSOL—A material stored in a container under pressure. Fine droplets are produced when the material dissolved in a liquid carrier is released into the air from the pressurized container.



ALGAE—Simple aquatic plants that contain chlorophyll and are photosynthetic.

ALGICIDE—A pesticide used to kill or inhibit algae.

ANTI-SIPHONING DEVICE—A device attached to the filling hose that prevents backflow or backsiphoning from a spray tank into a water source.

ANTICOAGULANT—A chemical that prevents blood clotting. An active ingredient in some rodenticides.

ANTIDOTE—A treatment used to counteract the effects of pesticide poisoning or some other poison in the body.

ARACHNID—A wingless arthropod with two body regions and four pairs of jointed legs. Spiders, ticks, and mites are in the class Arachnida.

ARTHROPOD—An invertebrate animal characterized by jointed body and limbs. It is usually covered by a hard exoskeleton covering that is molted at intervals. For example, insects, mites, and crayfish are in the phylum Arthropoda.

ATTRACTANT—A substance or device that lures pests to a trap or poison bait.

AVICIDE—A pesticide used to repel or kill birds.

BACTERIA—Microscopic organisms, some of which are capable of producing diseases in people, plants and animals. Some bacteria are beneficial.

BACTERICIDE—Chemical used to kill bacteria.

BAIT—A food or other substance used to attract a pest to a pesticide or a trap.

BAND APPLICATION—Application of a pesticide in a strip alongside or around a structure, a portion of a structure, or any object.

BARRIER APPLICATION—See band application.

BENEFICIAL INSECT—An insect that is useful or helpful to people, such as insect parasites, predators, or pollinators.

BIOLOGICAL CONTROL—Management of pests using beneficial arthropods as predators, parasites, and disease-causing organisms which may occur naturally or are introduced to reduce pest populations.

BIOMAGNIFICATION—The process by which one organism accumulates chemical residues in higher concentration from other organisms which they have consumed.

BOTANICAL PESTICIDE—A pesticide produced from chemicals found in plants. Examples are nicotine, pyrethrins, and strychnine.



BRAND NAME—The name, or designation of a specific pesticide product or device made by a manufacturer or formulator. (A marketing name.)

CALIBRATE, CALIBRATION OF EQUIPMENT OR APPLICATION METHOD—Measurement and adjustment to control the output or rate of dispensing pesticides.

CARBAMATES—(N-Methyl Carbamates) A group of pesticides containing nitrogen, formulated as insecticides, fungicides, and herbicides. The N-Methyl Carbamates are insecticides and inhibit cholinesterase in animals.

CARCINOGENIC—The ability of a substance or agent to induce malignant tumors (cancer).

CARRIER—An inert liquid, solid, or gas added to an active ingredient for delivering a pesticide to the target effectively. A carrier is usually water, oil, or other solvent, used to dilute the formulated product for application.

CARRYING CAPACITY—The number of organisms for which a specific site can provide life support.

CERTIFIED APPLICATORS—Individuals who are certified by the state to use or supervise the use of restricted-use pesticides.

CHEMICAL NAME—The scientific name of active ingredients found in formulated products. This complex name is derived from the chemical structure of the active ingredient.

CHEMICAL CONTROL—Pesticide application to kill pests.

CHEMOSTERILANT—A chemical compound capable of preventing animal reproduction.

CHEMTREC—The Chemical Transportation Emergency Center which has a toll-free number (800-424-9300) for providing 24-hour information only for chemical emergencies such as a spill, leak, fire, or accident.

CHLORINATED HYDROCARBON—A pesticide containing chlorine, carbon, and hydrogen. Many are persistent in the environment, such as Chlordane and DDT. Few are registered for use in the U.S.

CHOLINESTERASE, ACETYLCHOLINESTERASE—An enzyme in animals that helps regulate nerve impulses. This enzyme is depressed by N-Methyl carbamate and organophosphate pesticides.

CHRONIC TOXICITY—The ability of a pesticide chemical to cause injury or illness (beyond twenty-four hours following exposure) when applied in small amounts repeatedly for a longer period of time. (See also **Acute Toxicity**.)

COMMERCIAL APPLICATOR—A state-certified applicator who for compensation uses or supervises the use of pesticides classified for restricted use for any purpose or on any property other than that producing an agricultural commodity.



COMMON NAME—A name given to a pesticide's active ingredient by a recognized committee on pesticide nomenclature. Many pesticides are known by a number of trade or brand names, but the active ingredient has only one recognized common name.

COMMUNITY—The different populations of animal or plant species that exist together in an ecosystem (See also **Population and Ecosystem**.)

COMPETENT—Individuals properly qualified to perform functions associated with pesticide application. The degree of competency (capability) required is directly related to the nature of the activity and the associated responsibility.

CONCENTRATION—Refers to the amount of active ingredient in a given volume or weight of formulated product.

CONTACT PESTICIDE—A pesticide that causes death or injury to pests when in contact with it. The chemical does not have to be ingested. It is often used to describe a spray applied directly on a pest.

CONTAMINATION—The presence of an unwanted substance (sometimes pesticides) in or on a plant, animal, soil, water, air, or structure.

CULTURAL CONTROL—A pest management method that includes changing human habits, such as sanitation, changing work practices, or cleaning or garbage pick-up schedules.

DECONTAMINATE—To remove or break down a pesticidal chemical from a surface or substance.

DEGRADATION—A process by which a chemical compound or pesticide is reduced to simpler compounds by the action of microorganisms, water, air, sunlight, or other agents. Degradation products are usually, but not always, less toxic than the original compound.

DEPOSIT—The amount of pesticide on a treated surface after application.

DERMAL TOXICITY—The ability of a pesticide to cause acute illness or injury to human beings or animals when absorbed through the skin (see **Exposure Route**.)

DESICCANT—A type of pesticide that draws moisture or fluid from a plant or arthropod pest, causing it to die. Certain desiccant dusts destroy the waxy outer coating that holds moisture within an insect's body.

DETOXIFY—To render a pesticide's active ingredient or other poisonous chemical harmless.

DIAGNOSIS—The positive identification of a problem and its cause.

DILUENT—Any liquid, gas or solid material used to dilute or weaken a concentrated pesticide.

DISINFECTANT—A chemical or other agent that kills or inactivates disease-producing microorganisms. Chemicals used to clean or surface-sterilize inanimate objects.



DOSE, DOSAGE—Quantity, amount, or rate of pesticide applied to a given area or target.

DRIFT—The airborne movement of a pesticide spray or dust beyond the intended target area.

DUST—A finely ground, dry pesticide formulation containing a small amount of active ingredient and a large amount of inert carrier or diluent such as clay or talc.

ECOSYSTEM—The pest-management unit. It includes a community (of populations) with the necessary physical (haborage, moisture, temperature), and biotic (food, hosts) supporting factors that allow a population of pests to persist.

EMULSIFIABLE CONCENTRATE—A pesticide formulation produced by mixing or suspending the active ingredient (the concentrate) and an emulsifying agent in a suitable carrier. When added to water, a milky emulsion is formed.

EMULSIFYING AGENT (EMULSIFIER)—A chemical that aids the suspension of a liquid in another that normally would not mix together.

EMULSION—A mixture of two liquids which are not soluble in one another. One is suspended as very small droplets in the other with the aid of an emulsifying agent.

ENCAPSULATED FORMULATION—A pesticide formulation with its active ingredient enclosed in tiny capsules of polyvinyl or other materials; principally used for slow release. The enclosed active ingredient moves out to the capsule surface as pesticide on the surface is removed (volatilizes, or rubs off).

ENDANGERED SPECIES—Individual plants or animals with a population that has been reduced to the extent that it is near extinction and that has been designated to be endangered by a federal agency.

ENTRY INTERVAL—See Re-entry Interval.

ENVIRONMENT—Air, land, water, plants, people, animals, and the interrelationships which exist among them.

EPA - ENVIRONMENTAL PROTECTION AGENCY—The federal agency responsible for ensuring the protection of people and the environment from potentially adverse effects of pesticides and other contaminants.

EPA ESTABLISHMENT NUMBER—A number assigned to each pesticide-production plant by the EPA. The number indicating the plant at which the pesticide product was produced must appear on all labels of that product.

EPA REGISTRATION NUMBER—An identification number assigned to a pesticide product when it is registered by the EPA for use. The number must appear on all labels of pesticide products.

ERADICATION—The complete elimination of a (pest) population from a designated area.



EXPOSURE ROUTE OR COMMON EXPOSURE ROUTE—The manner—dermal (through the skin), oral (through the mouth), or inhalation/respiratory—in which a pesticide may enter an organism.

FIFRA—The Federal Insecticide, Fungicide, and Rodenticide Act: a federal law and its amendments that controls pesticide registration and use.

FLOWABLE—A pesticide formulation in which very finely ground solid particles are suspended (not dissolved) in a liquid carrier.

FOG TREATMENT—A pesticide in aerosol-sized droplets (under 40 microns). Not a mist or gas. After propulsion, the fog droplets fall on exposed surfaces.

FORMULATION—The pesticide product as purchased, containing a mixture of one or more active ingredients, carriers (inert ingredients), with other additives making it easy to store, dilute, and apply.

FUMIGANT—A pesticide formulation that volatilizes, forming a toxic vapor or gas that kills in the gaseous state, penetrating voids to kill pests.

FUNGICIDE—A chemical used to kill fungi.

FUNGUS (plural - fungi)—A group of small, often microscopic, organisms in the plant kingdom which cause rot, mold, and disease. Fungi need moisture or a damp environment (wood rots require at least 19 percent moisture). Fungi are extremely important in the diet of many insects.

GENERAL USE (UNCLASSIFIED) PESTICIDE—A pesticide which can be purchased and used by the general public. (See also **Restricted Use Pesticide**.)

GRANULE—A dry pesticide formulation. An active ingredient is either mixed with or applied as a coating to an inert carrier to form a small, ready-to-use, low-concentrate chemical which normally does not present a drift hazard. Pellets differ from granules only in their precise uniformity, larger size, and shape.

GROUNDWATER—Water source located beneath the soil surface from which springs and well water are drawn (see also **Surface Water**.)

HABITAT MODIFICATION—Removing food, water, shelter, and other conditions that support pests, or excluding access by pests to the site.

HALF LIFE—The time required for half of something to undergo a specific process, especially for half the nuclei in a sample of radioactive material to undergo decay.

HARBORAGE—Shelter that provides the basic needs, including a safe place for the pest population.

HAZARD—See Risk.

HERBICIDE—A pesticide used to kill or inhibit plant growth.



HIGH-RISK PERSON—A person who has some condition that may put him or her at risk from exposure to pesticides. Such persons include children, the elderly, pregnant women, newborns, asthmatics, the neurologically impaired, the environmentally ill (EI), and those with multiple chemical sensitivity (MCS).

HOST—Any animal or plant on or in which another lives for nourishment, development, or protection.

IGR, INSECT GROWTH REGULATOR JUVENOID—A pesticide which mimics insect hormones that control molting and the development of insect systems affecting the change from immature to adult (see **Juvenile Hormone**.)

INERT INGREDIENT—An inactive material without pesticidal activity in a pesticide formulation.

INGREDIENT STATEMENT—A portion of the label on a pesticide container that gives the name and amount of each active ingredient and the total amount of inert ingredients in the formulation.

INHALATION—Taking a substance in through the lungs (breathing in). (See **Exposure Route**.)

INSECT GROWTH REGULATOR—See **IGR**.

INSECTICIDE—A pesticide used to manage or prevent damage caused by insects.

INSECTS, INSECTA—A class in the phylum Arthropoda characterized by a body composed of three segments and three pair of legs.

INSPECTION—A process for detecting pests, pest damage, and evidence of pest activity in a managed site. (See **Monitoring**.)

INTEGRATED PEST MANAGEMENT—See **IPM**.

IPM—Integrated pest management. A planned pest management program in which methods are integrated and used to keep pests from causing economic, health-related, or aesthetic problems. IPM includes reducing pests to a tolerable level. Pesticide application is not the primary management method, but is an element of IPM, as are cultural and structural alterations. IPM programs stress communication, monitoring, inspection, and evaluation (keeping and using records).

JUVENILE HORMONE—A hormone produced by an insect that inhibits change or molting. As long as juvenile hormone is present the insect does not develop into an adult, but remains immature.

LABEL—All printed material attached to or on a pesticide container.

LABELING—The pesticide product label and other accompanying materials that contain directions for use that pesticide users are legally required to follow.



LARVA (plural - larvae)—The developmental stage of insects with complete metamorphosis that hatches from the egg. A mature larva becomes a pupa (some invertebrates have larvae, but they are not urban pests).

LC₅₀—Lethal concentration. The concentration of a pesticide, usually in air or water, that kills 50 percent of a test population of animals. LC₅₀ is usually expressed in parts per million (ppm). The lower the LC₅₀ value, the more acutely toxic the chemical.

LD₅₀—Lethal dose. The dose or amount of a pesticide that can kill 50 percent of the test animals when eaten or absorbed through the skin. LD₅₀ is expressed in milligrams of chemical per kilogram of body weight of the test animal (mg/kg). The lower the LD₅₀, the more acutely toxic the pesticide.

LEACHING—The movement of a substance with water downward through soil.

METAMORPHOSIS—A change in the shape or form of an animal. Usually used when referring to insect development.

MICROBIAL DEGRADATION—Breakdown of a chemical by microorganisms.

MICROBIAL PESTICIDE—Bacteria, viruses, fungi, and other microorganisms used to manage pests. Also called biorationals.

MICROORGANISM—An organism so small that it can be seen only with the aid of a microscope.

MITICIDE—A pesticide used to kill mites (see Acaricide.)

MODE OF ACTION—The way in which a pesticide exerts a toxic effect on the target plant or animal.

MOLLUSCICIDE—A chemical used to kill snails and slugs.

MONITORING—Ongoing surveillance. Monitoring includes periodic inspection and record-keeping. Monitoring records allow technicians to evaluate pest population suppression, identify infested or non-infested sites, and manage the progress of the pest-management program.

MSDS—Material Safety Data Sheet required by Department of Labor to be provided by manufacturers to those that request information on chemical substances.

NECROSIS—Death of plant or animal tissues which results in the formation of discolored, sunken, or necrotic (dead) areas.

NONTARGET ORGANISM—Any plant or animal other than the intended targets of pesticide application.

NYMPH—The developmental stage of insects with gradual metamorphosis that hatches from the egg. Nymphs become adults.



ORAL TOXICITY—The effect of a pesticide resulting in injury or acute illness when taken by mouth.

ORGANOPHOSPHATES—A large group of pesticides that contain phosphorus and inhibit cholinesterase in animals.

PARASITE—A plant, animal, or microorganism living in, on, or with another living organism for the purpose of obtaining all or part of its food.

PATHOGEN—A disease-causing organism.

PERSONAL PROTECTIVE EQUIPMENT—Devices and clothing intended to protect a person from exposure to pesticides, including items like long-sleeved shirts, long trousers, coveralls, hats, gloves, shoes, respirators, and other safety items as needed.

PEST MANAGEMENT—See IPM.

PEST—An undesirable organism including any insect, rodent, nematode, fungus, weed, or some terrestrial and aquatic plants and animals, virus, bacteria, or micro-organism which the Administrator declares to be a pest under FIFRA, Section 25(c)(1).

PESTICIDE—A chemical or other agent used to kill, repel, or otherwise manage pests or to protect from a pest.

pH—A measure of acidity/alkalinity of a liquid: acid below pH7; basic or alkaline above pH7 (up to 14).

PHEROMONE—A substance emitted by an animal to influence the behavior of other animals of the same species. Some are synthetically produced for use in insect traps.

PHOTODEGRADATION—Breakdown of chemicals by the action of light.

PHYSICAL CONTROL—Habitat alteration or changing the infested physical structure, such as by caulking holes, cracks, tightening around doors, windows, moisture reduction, ventilation, and other means.

PHYSIOLOGICAL SENSITIVITIES—Human physiological reaction from exposure in the environment to perhaps minute amounts of chemicals that produce an adverse response.

PHYTOTOXICITY—Injury to plants caused by a chemical or other agent.

POINT OF RUNOFF—The point at which a spray starts to run or drip from the surface to which it is applied.

POISON CONTROL CENTER—A local agency, generally a hospital, which has current information on the proper first-aid techniques and antidotes for poisoning emergencies. Such centers are listed in telephone directories.



POPULATION—Individuals of the same species. The populations in an area make up a community (see **Ecosystem**.)

PORT—Small sealable hole that allows injection of pesticidal material into a wall or other void in a structure.

PRECIPITATE—A solid substance that forms in a liquid and settles to the bottom of a container; a material that no longer remains in suspension.

PREDATOR—An animal that attacks, kills, and feeds on other animals. Examples of predaceous animals are hawks, owls, snakes, spiders, lady-bird beetles and other insects.

PROFESSIONAL—One who is trained to conduct an efficient operation and able to make judgments based on training and experience.

PROPELLANT—The inert ingredient in pressurized containers that forces an active ingredient from the container.

PUPA (plural - pupae)—The developmental stage of insects with complete metamorphosis when major changes from larval to adult form occurs.

QUALIFIED APPLICATOR—An applicator who is certified (and licensed in some states) to apply restricted-use pesticides in the state. Qualification may also include training or experience.

RATE OF APPLICATION—The amount of pesticide applied to a plant, animal, unit area, or surface; usually measured per acre, per 1,000 square feet, per linear foot, or per cubic foot.

RE-ENTRY INTERVAL—The length of time following an application of a pesticide during which entry into the treated area is restricted. Also known as **Entry Interval**.

REGISTERED PESTICIDES—Pesticide products which have been registered by the Environmental Protection Agency for uses listed on the label.

REPELLENT—A compound that keeps insects, rodents, birds, or other pests away from plants, domestic animals, buildings, or other treated areas.

RESIDUAL PESTICIDE—A pesticide that continues to remain effective on a treated surface or area for an extended period following application.

RESIDUE—The pesticide active ingredient or its breakdown products which remain in or on the target after treatment.

RESTRICTED USE PESTICIDE—A pesticide that can be purchased and used only by certified applicators or persons under their direct supervision. A pesticide classified for restricted use under FIFRA, Section 3(d)(1)(C).

RISK—A probability that a given pesticide will have an adverse effect on people or the environment in a given situation.



RMSF—Rocky Mountain Spotted Fever is an acute infectious rickettsial disease transmitted to humans by the American dog tick.

RODENTICIDE—A pesticide used to kill rodents.

RUNOFF—The movement of water and associated materials on the soil surface. Runoff usually proceeds to bodies of surface water.

SANITATION—The practice of removing undesirable substances that support a pest or pest population (for instance, food or water).

SIGNAL WORDS—Required wording which appears on every pesticide label to denote the relative toxicity of the product. Signal words are DANGER-POISON, DANGER, WARNING, or CAUTION.

SITE—Areas of actual pest infestation. Each site should be treated specifically or individually.

SOIL INJECTION—The placement of a pesticide below the surface of the soil, a common application method for termiticides.

SOIL DRENCH—To soak or wet the ground surface with pesticide. Large volumes of pesticides are usually needed to saturate the soil to a sufficient depth.

SOIL INCORPORATION—The mechanical mixing of a pesticide product with soil.

SOLUTION—A mixture of one or more substances in another substance (usually a liquid) in which all the ingredients are dissolved. Example: sugar in water.

SOLVENT—A liquid which will dissolve another substance (solid, liquid, or gas) to form a solution.

SPACE SPRAY—A pesticide which is applied as a fine spray or mist to a confined area.

STOMACH POISON—A pesticide that must be eaten by an animal in order to be effective; it will not kill on contact.

SURFACE WATER—Water on the earth's surface such as rivers, lakes, ponds, and streams. (See Groundwater.)

SUSPENSION—A pesticide mixture consisting of fine particles dispersed or floating in a liquid, usually water or oil. Example: Wettable powders in water.

TARGET—Plants, animals, structures, areas, or pests toward which the pesticide or other management method is directed.

TECHNICAL MATERIAL—Pesticide active ingredient in pure form, as it is manufactured by a chemical company. It is combined with inert ingredients or additives in formulations such as wettable powders, dusts, emulsifiable concentrates, or granules.



TOXIC—Poisonous to living organisms

THRESHOLD—A level of pest density. The number of pests observed, trapped, or counted that can be tolerated without an economic loss or aesthetic injury. Pest thresholds in urban pest management may be site specific. For example, different numbers of cockroaches may be tolerated at different sites (hospitals and garbage rooms would have different thresholds).

TOLERABLE LEVELS OF PESTS—The presence of pests, at certain levels, is tolerable in many situations. Totally eliminating pests in certain areas is sometimes not achievable without major structural alterations, excessive control measures, unacceptable disruption, or unacceptable cost. The tolerable level in some situations will be near zero. Urban pest-management programs may have lower tolerable levels of pests than agricultural programs.

TOXICANT—A poisonous substance such as the active ingredient in a pesticide formulation.

TOXICITY—The ability of a pesticide to cause harmful, acute, delayed, or allergic effects. (The degree or extent that a chemical or substance is poisonous.)

TOXIN—A naturally occurring poison produced by plants, animals, or microorganisms. Examples: the poison produced by the black widow spider, the venom produced by snakes, the botulism toxin.

UNCLASSIFIED PESTICIDE—See **General-Use Pesticide**.

URBAN—A Standard Metropolitan Area (SMA) or a town of 2,500(+) occupants.

URBAN PEST MANAGEMENT—Management of pest infestations that are normally problems in urban areas. Urban pest management involves reducing pest populations to tolerable numbers in and around residences, in structures, and those pests that cause health-related problems. Urban pest management may or may not focus on reducing economic injury, but it always deals with health or aesthetic injuries.

USE—The performance of pesticide-related activities requiring certification including application, mixing, loading, transport, storage, or handling after the manufacturing seal is broken; care and maintenance of application and handling equipment; and disposal of pesticides and their containers in accordance with label requirements. Uses not needing certification are long-distance transport, long-term storage, and ultimate disposal.

VAPOR PRESSURE—The property which causes a chemical to evaporate. The higher the vapor pressure, the more volatile the chemical or the more easily it will evaporate.

VECTOR—A carrier, an animal (such as an insect, nematode, mite) that can carry and transmit a pathogen from one host to another.

VERTEBRATE—Animal characterized by a segmented backbone or spinal column.

VIRUS—Ultramicroscopic parasites composed of proteins. Viruses can only multiply in living tissues, and they cause many animal and plant diseases.



VOID—Space inside walls or other inaccessible space that may harbor pests.

VOLATILITY—The degree to which a substance changes from a liquid or solid state to a gas at ordinary temperatures when exposed to air.

WATER TABLE—The upper level of the water-saturated zone in the ground.

WETTABLE POWDER—A dry pesticide formulation in powder form that forms a suspension when added to water.

ZONE—The management unit, an area of potential pest infestation made up of infested sites. Zones will contain pest **food, water, and harborage**. A kitchen-bathroom arrangement in adjoining apartments might make up a zone; a kitchen, storeroom, and loading dock at food-service facilities may make up another. Zones may also be established by eliminating areas with little likelihood of infestation and treating the remainder as a zone. A zone will be an ecosystem.

