

ARMED FORCES PEST MANAGEMENT BOARD
TECHNICAL INFORMATION MEMORANDUM NO. 39

**GUIDELINES FOR PREPARING
DoD PEST CONTROL CONTRACTS
USING INTEGRATED PEST MANAGEMENT**

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Integrated Pest Management (IPM)

is defined as: a planned program incorporating education, continuous monitoring, record-keeping, and communication to prevent pests and disease vectors from causing unacceptable damage to operations, people, property, material, or the environment. IPM uses targeted, sustainable (effective, economical, environmentally sound) methods, including habitat modification, biological control, genetic control, cultural control, mechanical control, physical control, regulatory control and, when necessary, the judicious use of least-hazardous pesticides ([DoDINST 4150.7, DoD Pest Management Program of 22 Apr 96](#)).

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GUIDELINES FOR PREPARING DoD PEST CONTROL CONTRACTS

FOREWORD

This Technical Information Memorandum (TIM) is one of a series published by the Armed Forces Pest Management Board (AFPMB), a Department of Defense (DoD) advisory body to the Deputy Under Secretary of Defense for Environmental Security. The Defense Pest Management Information Analysis Center (DPMIAC), a part of the AFPMB, stocks and disseminates TIMs on medical entomology, pest management, and natural resources topics. Copies of this document can be obtained from the AFPMB home page, <http://www.afpmb.org/>, from Department of Defense Environmental Network and Information Exchange (DENIX), <http://www.denix.osd.mil/> (password is required to access) or by calling DPMIAC at (301) 295-7479/80/81, DSN 295-7479, Fax (301) 295-7483. The Guide Performance Work Statement (GPWS) at enclosure (1) was prepared by the Real Property Protection Committee (RPPC). Comments and suggestions should be sent to the Armed Forces Pest Management Board, Attn: Real Property Protection Committee, Forest Glen Section, Walter Reed Army Medical Center, Washington, D.C. 20307-5001.

PURPOSE

The purpose of this TIM is to help installation personnel prepare DoD pest control contract specifications. Specification writers should use this TIM as a tool for implementing Integrated Pest Management (IPM) practices and reducing pesticide use.

The GPWS at enclosure (1) was developed from existing documents used by the DoD Components. It is available on CD ROM or disk. Specification writers can use the GPWS as a departure point for producing site-specific pest control contracts. Because contract formats are not uniform throughout the DoD, some users may find it necessary to re-format the GPWS.

REFERENCES

- (a) [DoD Directive 4715.1, "Environmental Security," February 24, 1996.](#)
- (b) SECDEF Memorandum, August 11, 1993, Pollution Prevention Strategies.
- (c) [DoD Instruction 4150.7, "DoD Pest Management Program," April 22, 1996.](#)

ENCLOSURES

- (1) Department of Defense Guide Performance Work Statement (GPWS) for Pest Control Services (Interim).
- (2) US Air Force Model Pesticide Reduction Plan (November 1996).

ACKNOWLEDGMENTS

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DISCLAIMER

The use of trade or firm names in this publication is for reader information and does not imply DoD endorsement of any product or service.

BACKGROUND

Reference (a) requires Federal Agencies to use and promote IPM techniques and acquisition procedures for pest control services. It also establishes as DoD policy the President's commitment to integrating IPM values into Federal acquisition policies. The Secretary of Defense (SECDEF), in reference (b), and the Deputy Under Secretary of Defense (Environmental Security) (DUSD(ES)), in reference (c), committed DoD to reducing pesticide use by 50% by the end of FY 2000 using FY 1993 as a baseline. Since a significant and growing portion of DoD pest control work is done by contractors, success hinges on pest control contract strategies and contract specifications.

At some DoD installations, pest control services are among the many types of facilities services acquired via contracts. Services such as trash removal and lawn care are routinely accomplished by contract. Pest control is not always one of the most expensive components of installation contracting, but it is usually one of the most environmentally sensitive programs. The GPWS, Enclosure (1),([gpws.exe](#)), is in a standard DoD format that can be tailored to obtain pest control services via any of the following contract

vehicles:

- Small purchase, with or without written solicitation and competition, depending on dollar amount. The User's Guide and Section C of the GPWS can be used for development of small purchase contracts.
- Invitation for Bid (IFB), wherein a responsible and responsive low bidder, validated by pre-award survey, is determined from among sealed bids.
- Negotiated procurement is an excellent tool to acquire IPM-oriented contractors from an industry that has only recently started to practice IPM. Unlike sealed bidding, a Request for Proposal (RFP) requires contractors (offerers) to demonstrate, prior to award, that they have the technical capability, experience, and resources to perform the work required; have a logical approach to managing and accomplishing the work; and have proposed enough money to do all the work. Offerers demonstrate their ability through the submittal of separate technical and price proposals, which are reviewed and evaluated by the Government. Contract award may be made to the offerer who provides the "best value" to the Government, price and technical factors considered. The contract need not be awarded to the lowest bidder.

Enclosure (2), entitled US Air Force Model Pesticide Reduction Plan, ([modpest.exe](#)), is a compendium of available IPM materials and methods that can be incorporated into DoD pest control contracts.

Specification writers will find control strategies in this document that will result in effective control of pests while reducing pesticide use. The Air Force Model Pesticide Reduction Plan explains the need for reducing pesticide use in DoD contracts. It also offers IPM tools that can be used by DoD personnel to reduce pesticide use by contractors. It explains why DoD can reduce pesticide use by 50% only if it requires contractors to use IPM technology, particularly for outdoor pest control operations, such as weed control. It emphasizes the advantages of using negotiated source selection procedures, when feasible, for acquiring IPM services. It provides language that should be incorporated into RFP evaluation factors for award and it suggests a proactive role for DoD Pest Management professionals in IPM acquisition actions.

Reference (a) requires that Pest Management Consultants (PMC) be available to ensure that specifications reflect the installation's pest management plan, to participate on technical review boards/teams for source selection actions, and to assist in tailoring pest control specifications.

DoD Pest control contracts are usually performance-based. The contractor is told what the final intended result is and how it will be measured rather than what specific procedures must be followed to get that result. This methodology rewards innovative contractors.

INCENTIVES FOR CONTRACTORS TO USE IPM AND REDUCE PESTICIDE USE

General. Despite the fact that IPM techniques have been available for a number of years, many commercial firms rely on chemical control of pests. IPM requires highly trained personnel and is typically most cost-effective when implemented for the long term. A better GPWS and improved (tailored) IPM specifications for individual contracts will not by themselves ensure a 50% pesticide

reduction by FY 2000. In order to receive excellent contract services, installations need: a well conceived IPM specification, a qualified IPM contractor, and aggressive, competent contract management (including quality assurance evaluation by an individual trained in both contracts and IPM).

Terms of Contract. Options should be exercised for pest control contracts, provided the incumbent's performance is satisfactory. A contractor awarded a one-year contract with four option periods is more likely to caulk and seal food handling area cracks and crevices than is a contractor awarded a one-year contract with no option periods. Caulking represents a significant up-front cost that may not be amortized in a one-year contract. It may be more profitable to treat cracks and crevices monthly with pesticides. However, over a five-year period, caulking (which eliminates pest harborage) may avert the need for pesticide applications and be more profitable.

Partnering. Successful IPM contracts require partnering among Quality Assurance Evaluators (QAEs) trained in pest control, IPM-knowledgeable contractor project managers, and educated customers (food service managers, building monitors, housing managers, etc.). IPM education may be provided by the QAE or the project manager, or preferably both. Installation newsletters and plans-of-the-day are excellent vehicles for educating and informing installation personnel of things they can do to help improve pest control and reduce pesticide use. An example of partnering is encouraging food managers to maintain excellent sanitation in dining facilities.

Limiting Pesticide Use. Controls should be implemented only when pests have actually reached aesthetic/health thresholds verified by surveillance results. When pesticides must be used, least-hazardous materials should be selected. Baits, gels, and pastes are preferred to liquids and dusts. Well-written specifications encouraging the use of IPM materials and methods can produce excellent control of pests. Contract specifications should be written to provide contractors an incentive to reduce pesticide use.

OPPORTUNITIES FOR REDUCING PESTICIDES BY 50%

Opportunities for pesticide reduction (measured in pounds active ingredient) exist in all types of pest control but are best realized in large-scale (outdoor) programs. Data from DoD Components indicate that a high percentage of total pest control effort is spent on weed control. At many installations the best "target" for reducing pesticide use is weed control (fence line; industrial; ornamental grooming; pavement cracks; noxious weeds; aquatic weeds; and broadleaf weed control in improved turf, particularly golf courses). In some cases excellent economical control may be achieved by substituting well-timed mechanical and cultural measures for herbiciding. Examples are proper grass mowing height, hand or machine cutting, hot water ornamental grooming, mulching, and adjusting soil PH to encourage hardy (pest-resistant) turf. Other pesticide-intensive control programs include tree-spraying, mosquito control and termite control.

Approximately half of the total DoD pest control effort is devoted to controlling nuisance pests, such as

cockroaches and ants. Much of this work occurs indoors and requires relatively small amounts of pesticides. Substituting traps, pressure washing, vacuum techniques, etc., collectively will help achieve the 50% pesticide reduction goal. When pesticides must be used, insect growth regulators and baits will help decrease total use. The General Services Administration has used these IPM techniques for several years to successfully control insects in office buildings. Some indoor programs that may involve considerable pesticides include stored products pest control and rodent control.

SURVEILLANCE - THE KEY TO IPM

Pre-Treatment Surveillance. The work of an IPM program is, to a large extent, surveillance. Urban IPM is similar to agricultural IPM in that practitioners spend most of their time inspecting for rather than treating pests. When aesthetic (not economic) thresholds are reached, corrective actions, chemical or (hopefully) nonchemical, are initiated. Surveillance methods include visual inspections, sticky traps, aerosol flushing, and destructive or nondestructive termite inspections. Tools for termite inspection can include low-tech devices (stethoscopes), high-tech devices (electronic listening devices), and even termite-detecting dogs.

Specification writers should develop paragraphs that encourage reliance on scheduled weekly, monthly, or quarterly surveillance rather than on scheduled chemical treatments. Most treatments should be initiated after survey results indicate that aesthetic thresholds have been reached. Cockroach treatments, for example, should be triggered by trap counts, not by the calendar. Weed control should be triggered by the measurable condition of weeds, not by an arbitrary treatment frequency. Surveillance should be conducted at established intervals, e.g., inspection of housing for subterranean termites should be performed annually or at least during occupancy turnover. When the pest control QAE validates a finding of new termite activity, controls (at a predetermined price) may be approved.

Post-Treatment Surveillance. In order to evaluate the effectiveness of controls, surveillance should also be required at predetermined intervals after controls are implemented.

RECORD-KEEPING

General. Specifications should include detailed, site specific, record-keeping and reporting requirements that are necessary to comply with reference (a), evaluate control success, document resources used, and measure progress in accomplishing the DoD pesticide reduction goals. As IPM programs mature, the percentage of inspection time will increase and pesticide application time will decrease. Years ago, a monthly pest control report primarily indicating inspection rather than control would have been suspect. The appearance would have been that not much work was taking place. Reference (c) requires that nonchemical pest management operations (e.g. surveys) be reported on installation pest control reports. Pest Control QAEs should expect and encourage a high percentage of inspection time as opposed to pesticide application time.

Building Records. Records of nonchemical and chemical IPM treatments made in each building should

be required and should be archived indefinitely. These histories are valuable to the installation for documenting effective IPM techniques, planning long-range control of termites and other structural pests, and limiting liability.

SHOP FACILITIES, VEHICLES, AND PEST CONTROL EQUIPMENT

It may be in DoD's interest to provide pre-existing DoD-owned equipment to IPM contractors awarded multi-year contracts. To maximize efficiency, IPM contractors replacing in-house operations should normally be provided pre-existing DoD facilities. This is especially true when a modern pest control shop, constructed for a former in-house program, is available. The specification should hold the contractor to the same high standards applied to in-house operations for storing and mixing pesticides and cleaning up after operations described in reference (c). Special attention should be paid to the prevention of spills and discharges. DoD has signed memoranda of agreement with many states, which facilitate entry of state inspectors into DoD pest control shops.

EXPERIENCE/TRAINING OF CONTRACTOR PERSONNEL

Specifications should normally require that contractors employ, or have readily available, an entomologist trained and experienced in IPM. Exceptions can be made for contracts under \$25K. This is true for IFB as well as RFP contracts and should be verified during pre-award survey or technical proposal review. All pest control technicians must be certified in the state in which the work is performed. Technical evaluation factors should emphasize experience and past performance in application of IPM techniques.

Pest control QAEs should be DoD-trained in both quality assurance evaluation and pest control.

ROLES OF KEY PERSONNEL INVOLVED IN PEST CONTROL CONTRACTS AND PESTICIDE REDUCTION

1. **Commanding Officer (CO)** - responsible for his/her installation meeting the DoD 50% pesticide reduction goal and typically briefed by the major command environmental audit team. Also signs the installation pest management plan.
2. **Environmental Coordinator** - works for the CO, XO, or Base Engineer/Public Works Officer; serves as command focal point for all environmental programs.
3. **Base Engineer/Public Works Officer** - responsible for facilities support contracting, including pest control services.
4. **Senior Medical Officer** - signs the pest management plan and annual revisions; is responsible for safe use of pesticides and for surveillance of disease vectors.

5. **Pest Management Coordinator** - designated by the CO; usually a multi-hatted individual described elsewhere in this list; signs the Pest Management Plan and annual revisions; is the command "eyes and ears" for IPM contracting; ensures that all types of pest control (including specialized programs such as Bird-Aircraft Strike Hazard Reduction) are incorporated in specifications.
6. **Contracting Officer (KO)** - advises on strategies for acquisition of pest control services, including IPM; conducts/controls all negotiations concerning cost or price, technical requirements, and other terms and conditions when negotiated source selection procedures are used.
7. **Contracting Officer's Representatives** - includes certain authorized representatives of the contracting officer acting within the limits of their authority as delegated by the commanding officer; duties could include acting as the point of contact with the contractor, conducting the pre-performance conference, and making recommendations for action by the KO.
8. **Quality Assurance Evaluator for Pest Control** - base engineer/public works employee trained both in quality assurance and pest control technology; may assist the Contracting Officer's Representative or may also function in that capacity; is the key DoD person who ensures compliance and helps educate customers in IPM.
9. **Pest Control Customers** (e.g., food service facility and housing managers) - consumers of pest control services; should be educated in IPM and should partner with pest control QAE and contractors to ensure good sanitary practices that discourage pests; need to properly prepare areas for IPM treatments.
10. **Golf Course Superintendent** - typically a Morale, Welfare and Recreation (MWR) employee and potentially a heavy user of a wide range of pesticides (fungicides, herbicides, and insecticides). Some or all of pest control on golf courses may be contracted. (The fifty percent pesticide reduction goal is in jeopardy if pesticide use on a golf course is not significantly reduced).
11. **Natural Resources Manager** - oversees agricultural out-leasing, forestry programs and other contracts involving pest control.
12. **Pest Management Consultant** - cognizant command or geographical (civilian or uniformed) entomologist who provides technical consultation to the installation; signs the Pest Management Plan and annual revisions; often reviews pest management program during Command Environmental audits. Participates on technical review boards and assists with development of specifications for QA plans. Ensures triennial training of pest control QAEs, and annually reviews installation pest management programs.

RELATIONSHIP BETWEEN IPM AND OTHER FACILITIES SUPPORT CONTRACT FUNCTIONS

IPM emphasizes sanitation, exclusion and pest-proofing. Pest populations will dwindle when denied

access to buildings or denied food and harborage. This will eliminate the need for chemical intervention. Historically these measures were not always considered within the purview of pest control. One way to integrate sanitation, exclusion, and pest proofing with traditional pest control is to consolidate pest control in a Base Operating Support contract (BOS), which includes all available techniques, such as cleaning, odor-control, custodial, janitorial, trash removal services, and building maintenance/repair. When BOS contracts are in place, installations do not have to concern themselves with questions regarding which contractor is responsible for the service. There is only one contractor. For example, if pesticide applications can be reduced in food handling areas by caulking cracks and crevices for cockroach control or sealing utility openings for mouse control, the BOS contractor can assign either pest control or maintenance personnel.

INSTRUCTIONS FOR USING ENCLOSED DISKETTE AND DOWNLOADING FILES

The diskette included with this TIM contains two self-extracting files:
These files may be downloaded by clicking on the highlighted file names below.

[gpws.exe](#)Enclosure 1, DoD Guide Performance Work Statement

[modpest.exe](#)Enclosure 2, US Air Force Model Pesticide Reduction Plan

Create two new directories (folders) on your hard drive (i.e., gpws and modpest) and copy each file from the diskette (or your download directory) into its own empty directory. You will need approximately 3.4 MB of free disk space to extract both files. While in the respective directories, run (or double click) gpws.exe and modpest.exe. **Do not** attempt to run these files on the diskette as there is not enough room to extract them there.

The gpws.exe file will extract 7 files (readme.wpd, usrguide.wpd, qaguide.wpd, sec-b.wpd, sec-c.wpd, sec-j.wpd, and sec-m.wpd) in WordPerfect 5.1/5.2 format. This requires approximately 1.2 MB of disk space.

The modpest.exe file will extract 16 files (one main document with 15 appendices) in Microsoft Word 6.0 format. This requires approximately 2.2 MB of disk space. If you do not have Microsoft Word available, a free Microsoft Word viewer may be downloaded from AFPMB.org. This viewer will allow you to view and print documents but does not allow editing.

If you have problems extracting and using these files contact your local computer support services. If you are unable to resolve your problem locally you may call DPMIAC at DSN 295-7476 or commercial

301-295-7476.