



Environmental Considerations - Integrated Pest Management Services (IPM)

IPM is a coordinated approach to pest management that seeks to prevent unacceptable levels of pests by prioritizing the most-effective means with the least possible hazard to building occupants, workers and the environment. IPM is a strategy focusing on long-term prevention and suppression of pest problems through a combination of practices such as structural, cultural, mechanical, physical, and biological controls, with a least hazardous pesticide used only as a last resort.

IPM requires more skill and knowledge than conventional pest control and many contractors may not be capable of providing quality IPM services. It is important to hire a qualified service provider.

IPM Definition (derived from EcoWise Certification):

IPM is a science-based strategy and decision-making process that provides effective, long-term pest control while emphasizing pest prevention and the use of non-chemical pest management practices. At its core, IPM includes the following activities:

- *Inspection, monitoring and record-keeping are used to determine if thresholds for acceptable pest levels have been exceeded and to select the location, timing, and type of management strategies needed to successfully manage pests.*
- *A partnership is formed with the customer to facilitate management of pests.*
- *Appropriate non-toxic strategies are implemented from educational, cultural, manual, mechanical, physical, and biological strategies. They are used within an integrated program to achieve long-term solutions that minimize hazards to human health and the environment.*
- *Pre-approved, least-toxic controls are included in the treatment program when non-chemical methods are insufficient to solve the pest problem in an effective and affordable manner.*

Rational for an IPM Program:

While it is essential that facilities maintain a clean environment free of pests, it is also important that patients, staff, and visitors be protected from exposure to pesticides that can have adverse health impacts. A growing body of research links pesticides to cancers, neurological disorders, problems with reproduction, birth defects, and liver and kidney damage. They also can cause irritation to the eyes and skin, can trigger respiratory problems such as asthma, produce headaches, nausea, and can affect learning disabilities in children. Vulnerable populations served at health care facilities include patients suffering from cancer, who have compromised immune and nervous systems, the elderly, infants and children, and those who have an allergy or sensitivity to chemicals including pesticides.

Please consider the following supplier questions in the RFP/RFI process for pest management services.

	Suggested RFP Question	Preferred Answer	Definition	Rationale
1	Is your organization's IPM services certified by Green Shield or EcoWise (California)?	Yes	Green Shield is a nonprofit certification program promoting the use of effective prevention-based pest control while minimizing the need to use pesticides. Their standards are modeled after IPM Star, an established IPM certification action program for schools. It is operated by The IPM Institute of North America. EcoWise is third party certification organization that certifies service providers in California who must demonstrate expertise in prevention-based pest control.	Integrated Pest Management is a proven, cost-effective strategy to combat pest problems without unnecessary pesticide use. Spray approaches may make pests go away but they may come back if preventive measure are not in place to correct the conditions that lead to pest problems. Pesticides may be classified as carcinogenic, reproductive and developmental toxins or have other health risks and expose patients and staff who are already compromised. For a list of certified companies to EcoWise, visit http://www.ecowisecertified.org/ecowise_find.html . For a list of certified companies to Green Shield, visit http://www.greenshieldcertified.org/providers/ .
2	Will your organization be certified by Green Shield or EcoWise within 12 months of contract award? (Yes/No)	Yes	This provides an opportunity to consider services that are in the process of becoming certified.	
3	Does your company have five (5) years experience with health care accounts and at least a two (2) year verifiable record of practicing IPM? (Yes/No)	Yes		This question demonstrates experience in the field of IPM in health care.
4	Will each individual who will be working on contract have at least a two (2) year verifiable record of practicing IPM? (Yes/No)	Yes		This question demonstrates experience in the field of IPM by the service professionals.
5	Will your company provide an onsite initial site assessment and provide the customer with an IPM Action Plan for how to manage pests found?		An initial assessment and IPM action plan will be comprehensive and technical. They will identify conditions that can be corrected and establish a protocol focusing on step-by-step non-toxic pest prevention, and the use of least-toxics as a last resort.	This ensures potential pest-conductive conditions are identified and addressed prior to regular service. It also ensures that an agreed plan is followed to address and eliminate pest conducive conditions and pest pressures using non-toxic actions first.
6	Will your company provide a Pest Control Logbook or file at each building or site? (Yes/No)	Yes	The log book shall contain 1) The service schedule for each building, 2) a copy of the label, MSDS, and EPA registration # for each pesticide used, 3) Pest surveillance sheets, 4) Inspection report form, 5) Technician's service report forms.	The entries in the log book will provide detailed requests for service and a detailed record of the service by the technician.

7	For facilities with Integrated Pest Management (IPM) Policies, supplier must review with infection control and safety any pesticide formulation and active ingredients prior to application. Will your company comply with this requirement? (Yes/No)	Yes		The service should follow organizational requirements for use of any pesticide
8	Will your company agree to follow an IPM protocol for pest pressures focusing on non-toxic actions first, and then using a least-toxic pesticide from a pre-approved list. (Yes/No)	Yes	Any pesticide application shall be restricted to a limited list of pre-approved least-toxic pesticides, reviewed annually .	Ensures service provider has access to a pre-approved list of least-toxic pesticides to be used when non-toxic alternatives have been exhausted.
9	Will all pesticide applicators on any hospital campus be licensed by the state, certified to handle the pest control products and utilize appropriate personal protective equipment? (Yes/No)	Yes		Worker safety measure
10	Will your company agree to provide notification to all building occupants of not less than 72 hours (or 24 hours in an emergency) before a pesticide, other than a least toxic, non-volatile pesticide, is applied in a building or on surrounding grounds that the building maintains? (Yes/No)	Yes	Notification shall include posting pest management information signs with the date, time and location of the application and the product applied in an appropriate area in order to provide visible notification to patients, visitors and employees. Signage shall include contact information for additional details	Ensures staff and patients are aware of the health risks associated with pesticide exposure.
11	Except in case of immediate endangerment to health, will your company agree to prohibit the use of all pesticides classified by the EPA as "Restricted Use Products"? (Yes/No)	Yes	Restricted Use pesticides are highly acutely toxic pesticides that, due to the associated adverse health risks, are not available for purchase by the general public, and may only be applied by a certified pesticide applicator or an individual working under their direct supervision	Ensures safety to service providers and reduces potential exposure to pesticides linked with acute and chronic effects, such as Non-Hodgkin's lymphoma, prostate cancer, Parkinson's disease, lung cancer, chronic bronchitis, and asthma.
12	Except in case of immediate endangerment to health, will your company agree to prohibit the use of pesticides that are U.S. EPA's Categories I and II (i.e. those with the highest acute toxicity)? (Yes/No)	Yes	Categories I and II and the two most highly acutely toxic pesticide classifications by the EPA (on a scale of I to IV)	Ensures service providers will not use pesticides with the greatest risk of causing acute problems such as asthma and breathing problems, and skin and eye irritation.
13	Except in case of immediate danger to health, will your company agree to eliminate the use of pesticides with active ingredients classified as known, likely, or possible carcinogens by the US EPA (http://www.epa.gov/iris/search_human.htm), the International Agency for Research on Cancer (IARC), (http://monographs.iarc.fr/ENG/Classification/index.php), the National Toxicology Program (NTP), (http://ntp.niehs.nih.gov/?objectid=72016262-BDB7-CEBA-FA60E922B18C2540), or the California Proposition 65 List, (http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html)? (Yes/No)	Yes	Lists by the US EPA, International Agency for Research on Cancer (IARC), National Toxicology Program (NTP), and California Proposition 65 indicate chemicals that are known, likely, or possible carcinogens. Carcinogens are agents that can cause cancer.	Ensures the service provider will not use pesticides that are classified as carcinogens.
14	Except in case of immediate danger to health, will your company agree to eliminate the use of pesticides with active ingredients listed as reproductive or developmental toxins on either the Material Safety Data Sheet (MSDS)/Safety Data Sheets for the product or the California Proposition 65 List? (Yes/No)	Yes	Reproductive toxicity is defined as having adverse effects on sexual function and fertility and adverse effects on development of the offspring. Chemicals with these effects would be classified as reproductive toxicants. Developmental toxicity essentially means adverse effects induced during pregnancy or as a result of parental exposure and can be manifested at any point in the life span of the organism. ¹	California Prop 65, For more information, http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html
13	Except in the case of immediate danger to health, will your company agree to eliminate the use of pesticides containing Cholinesterase inhibitors (organophosphate pesticides such as chlorpyrifos, diazinon, malathion and Carbamate pesticides such as carbaryl and bendiocarb.)? (Yes/No)	Yes	Organophosphate pesticides and Carbamates are extremely harmful to the nervous system, as they are cholinesterase inhibitors and bind irreversibly to the active site of an enzyme essential for normal nerve impulse transmission. Carbamate (carbaryl, bendiocarb, etc.) is an organic compound derived from carbamic acid that kills insects.	Ensures service provider will not use organophosphate or carbamate insecticides which include some of the most toxic pesticides. ⁱⁱ
14	Except in the case of immediate danger to health, will your company agree to eliminate pesticides with active ingredients identified as suspected endocrine disruptors by EPA's Endocrine Disruptor Screening Program?	Yes	Endocrine Disruptors mimic the action of hormones, block the receptors in cells receiving hormones, and affect the synthesis, transport, and metabolism of hormones.	Will ensure service providers will not use endocrine disrupting pesticides that can cause adverse developmental, disease, and reproductive problems.
15	Will your company agree to eliminate the use of pesticides containing pyrethroid (cyfluthrin, permethrin, etc.) chemical family and phenoxy herbicides (2,4-D, mecoprop, etc.) except in case of immediate endangerment to health as a result of pest situation? (Yes/No)	Yes	Synthetic pyrethroids are synthesized derivatives of naturally occurring pyrethrins. The pyrethroid (cyfluthrin, permethrin, etc.) chemical family is a synthetic chemical insecticide widely used in products to kill insects. phenoxy herbicides (2,4-D, mecoprop, etc.)	Will ensure service providers will not use synthetic pyrethroid which have irritant and/or sensitizing properties, are linked to disruption of the endocrine system, and increases the risk of breast cancer. Pyrethroids are highly toxic to aquatic organisms and can accumulate in sediment. In California they have been found in water bodies adjacent to urban/residential areas. Phenoxy herbicides have been linked to carcinogenicity, endocrine disruption, development and reproduction toxicity, neurotoxicity, and many acute effects.

16 Is your company free of any violations of any state pesticide regulations or pest management regulations with the past three years? (Yes/No)	Yes	In each state, one agency works cooperatively with the US EPA to enforce federal pesticide regulations and respond to potential complaints. For more information, go to the National Pesticide Information Center, http://npic.orst.edu/reg/state_agencies.html . The US EPA regulates pesticides at the national level under the authority of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA and other laws.	Each state has primary responsibility to investigate pesticide incidents, including potential pesticide misuse, drift, and off-target impacts. To find your contact information, go to the National Pesticide Information Center, http://npic.orst.edu/incidents.html
17 Will your company agree to eliminate the use of insecticides containing neonicotinoids (imidacloprid, acetamiprid, clothianidin, dinotefuran, nithiazine, thiacloprid and thiamethoxam)? (Yes/No)	Yes	Neonicotinoids are a relatively new class of insecticides that share a common mode of action that affect the central nervous system of insects, resulting in paralysis and death. They include (and would be listed on labels as): imidacloprid, acetamiprid, clothianidin, dinotefuran, nithiazine, thiacloprid and thiamethoxam. Neonicotinoids are not only linked to acute exposure and immediate bee deaths, but also sublethal exposure that adversely affects bee reproduction, navigation, and foraging.	Use of neonicotinoids is toxic to pollinators such as bees. These chemicals may be in the insecticides used. Service providers should read product labels to avoid their use. Many government agencies are banning this chemical in purchasing policies for pest management services and landscaping plants, including cities such as San Francisco; Spokane, WA; and Eugene, OR. For more information, visit http://www.beyondpesticides.org/pollinators/chemicals.php .

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¹ Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Fifth revised edition, United Nations, 2013, pg 177

ⁱⁱ Extension Toxicology Network, A Pesticide Information Project of Cooperative Extension Offices of Cornell University, <http://pmep.cce.cornell.edu/profiles/extoxnet/TIB/cholinesterase.html>, v viewed July 2015

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