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DEC 19 1994

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

LEONARD CAMPBELL, et al.,)
 Plaintiffs,)
 v.)
 ANDERSON McGRUDER, et al.,)
 Defendants.)

INMATES OF D.C. JAIL, et al.,)
 Plaintiffs,)
 v.)
 DELBERT C. JACKSON, et al.,)
 Defendants.)

C.A. No. 1462-71
(WBB)

C.A. No. 75-1668
(Cases consolidated before
Judge William B. Bryant)

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NOTICE OF FILING

Pursuant to the April 20, 1993 Order appointing her Special Master in the above-captioned matters, and with the consent of the defendants, the Special Officer retained James Balsamo to evaluate environmental health and safety at the D.C. Jail. During August of 1994 Mr. Balsamo conducted an audit of the Jail. This audit culminated in a report which was issued by Mr. Balsamo in November of 1994. Mr. Balsamo's report, which is attached hereto, describes many substantial violations of this Court's Orders related to environmental health and safety and also sets forth recommendations for curing each violation.¹

The Special Officer provided the parties with copies of Mr. Balsamo's report and recommended that the defendants develop a

¹ The Special Officer adopts Mr. Balsamo's findings as her own.
Campbell v. McGruder



proposed corrective action plan and implementation schedule that could be submitted to the Court for approval. The defendants have failed to meet the deadlines established by the Special Officer for submission of a proposal to cure the deficiencies identified in Mr. Balsamo's report. However, defendants' counsel advised the Special Officer today that the defendants may be able to submit a proposal by the last day of January, 1995. Accordingly, if this matter cannot be resolved informally by the end of January, 1995, the Special Officer shall submit a report recommending that the Court impose contempt sanctions and that the Court order that the defendants implement the recommendations made by Mr. Balsamo.

Grace M. Lopes

Grace M. Lopes
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Date: December 16, 1994

Certificate of Service

I hereby certify that a copy of the Notice of Filing was mailed first class, postage prepaid, on this 16th day of December, 1994 to the following:

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ENVIRONMENTAL HEALTH AND SAFETY SURVEY

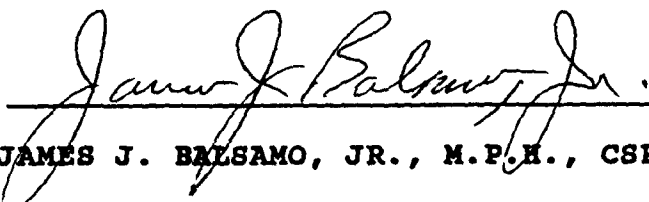
DISTRICT OF COLUMBIA JAIL

WASHINGTON, D. C.

ON

AUGUST 1-5, 1994

BY



JAMES J. BALSAMO, JR., M.P.H., CSP, R.S.

I, James J. Balsamo, Jr., was retained by Grace M. Lopes, Special Officer of the United States District Court for the District of Columbia to evaluate the District of Columbia Jail during a visit August 1-5, 1994.

Prior to this inspection, I was provided with two Reports of Environmental Health and Safety Inspections of the District of Columbia Jail prepared by the Department of Consumer and Regulatory Affairs (DCRA) and these were reviewed prior to my inspection. I later received for my review, a copy of the Department of Corrections abatement plan which was prepared in response to the May 1994 DCRA Environmental inspection of the jail facilities. During my inspection of the jail facilities, I spoke with many jail personnel, both correctional officers and administrative personnel and reviewed on site documents that related to safety and environmental issues.

My findings and recommendations are based on all of the above information, but especially my tour of the facility.

In summary fashion, fire safety, food sanitation, housekeeping and general cleanliness, insect and rodent control, disaster preparedness, clothing issues, staff knowledge and training and inadequate written policies and procedures are issues that must be corrected in order to provide a safe, clean, and healthful environment for the inmates. Bloodborne pathogen and tuberculosis awareness and training are not being adequately addressed.

I. Introduction

I toured this facility after having read the detailed environmental reports of the District of Columbia Department of Regulatory Affairs. My findings corresponded very well with the July 18, 1994 report in so far as sanitation and safety are concerned. Many cells have very dirty walls and floors; showers are filthy and rusty; flying insects near the showers are in evidence; lighting is inadequate in the cells; pest control is inadequate; vents are obstructed; inadequate bedding and clothing is provided; water temperatures in showers and lavatories are not well regulated; food sanitation in the kitchen is poor; and, some plumbing fixtures are in bad repair. Bloodborne pathogen and fire safety training, food service staffing, and refrigerated and non-refrigerated storage space, is totally inadequate. Electrical and plumbing systems need upgrading and ventilation and temperature control needs to be updated.

Because of this, I did not feel the need to repeatedly list these items in each and every cell or area. I summarized the items with which I am concerned, discussed the problems and attempted to offer reasonable solutions.

II. Inspection Results

The twenty-five major issues that need attention in order to improve the safety and sanitation in this facility are as follows:

A. Fire Exits

Problem:

Fire exits at the rear of the cell blocks are not readily available for inmate egress.

Discussion:

Section 6, page 6-3, of the description of the fire protection system of this facility as designed states: "All stairs are locked, unlike ordinary buildings, therefore quick access to emergency keys is essential for basic safety of the building occupants. All exterior doors can be unlocked only from the exterior therefore the need for a quick and deliberate response in the event of a fire cannot be stressed enough. There are three areas where inmates may be relocated or evacuated:

1. Other interior portions of the facility
2. The recreation yard

3. The periphery of the building

Use of the periphery for evacuation poses a more serious problem from a security standpoint. Review of all Fire Department Procedures by correctional personnel on a regular basis is recommended to assure that a positive and aggressive policy is available for use during any fire emergency."

I was told that in the event of a fire on a tier that would require evacuation through the exit at the rear of the unit, an officer would be sent to the command center to get the key and proceed to the periphery exit doors. This officer is not pre-designated and would have to be identified at the time of the emergency. Someone in authority should be pre-assigned to make sure this assignment is carried out. This should be part of the fire emergency plan and be part of the drill process and critique.

I asked if any training is provided with respect to this task and is it part of the drill. Security Lt. Givan said that he is not aware of any such training.

I then asked to be shown the exits on the perimeters of the building and determine if the locks worked. After about ten (10) minutes of futile efforts to get a key to the recreation yard the proper key was secured from the locksmith. When we did enter the recreation area, it was learned that we could not get to the perimeter of the building from the recreation yard. We then went back into the building and exited the perimeter area through the staff exit. Finally arriving at the fire exit doors at the ground level, correctional officers tried to open the doors and were unable to open them with the set of keys they said were for the doors. After going back to the command center, another set of keys were secured from the locksmith. Upon returning to the perimeter of the building, the exterior fire stairwell doors were opened, but the correctional officers were unable to open the interior doors leading to the inmate confinement units.

This took approximately forty-five (45) minutes and the exercise was unsuccessful. This points out that this vital part of the fire exit plan is in shambles and is not a routine part of the fire drills held at this facility. Not having keys readily available for safe escape and not being able to open the rear exit doors on the housing units, thereby creating "dead end" corridors, is prohibited by the 1986 APHA "Fire Protection and Fire Safety Practices Standards." Plans for extra security, when this avenue of evacuation must be taken, must also

be part of the overall exit plan. Keys for fire exiting purposes are clearly not readily available and it should be recognized that there is only one (1) locksmith for this entire facility and he had to determine which keys to use to open these exits. When he is on vacation or is sick, who is the person with the knowledge to be able to provide the needed information on keys and locks. If a fire occurs when he is off work what alternate plan is available to have someone with his knowledge available? Even the facility officer in charge of Security and keys could not find the correct keys.

Solution:

1. The keys for these perimeter locks understandable must be secured at all time, but must be readily available if needed or time and lives may be lost in a fire emergency.

Standard: 1986 APHA Standard for Correctional Facilities (APHA-SCF), Part 8-D-3 F&G

2. A fire safety plan must incorporate fire exit access and evacuation in a pre-determined plan of action in coordination with the Washington, D. C. Fire Department and jail personnel. This must become part of all fire drill exercises.

Standard: 1986 APHA-SCF, Part 8-D-3 G & M

3. Plans and personnel assignments requirements SCBA's to be brought to the unit for search and evacuation purposes is not in the version of the Fire Drill/Evacuation of Housing Units plan provided for my review. This must also be part of the plan and be part of the fire drill exercise.

Standard: 1986 APHA-SCF, Part 8-D-3 L N, O

4. Many of these perimeter doors are rusted and are in need of immediate repair.

Standard: 1986 APHA-SCF, Part 8-D-3 F, G & M

B. Training and Documentation

Problem:

Civilian employee training for such things as fire safety, bloodborne pathogens, and hazardous materials is lacking. Fire safety training for correctional personnel at this facility only began in June 1994.

Discussion:

In speaking with correctional, maintenance, and other civilian personnel, it became very clear that civilian personnel have not received fire safety training and that correctional officers had just begun their on-site fire safety training. The duties of civilian personnel during such emergencies are not fully understood. If in fact they have any such assignments.

In trying to determine if correctional personnel understand the hazards of the chemicals they use, sometimes in inmate areas, I feel there is a great lack of such knowledge. They have a right to know the hazards of such chemicals and how to protect themselves and others (including inmates) when these materials are used. Material Safety Data Sheets (MSDS) could not be located in this facility.

Solution:

1. Institute a "Chemical Right to Know" Program for officers and civilian staff to include the provision of MSDSs and how to read them, the hazards of such chemicals, and the methods of protecting themselves, and others in the area, from the hazards of such chemicals.

Standard: 1986 APHA-SCF, Part 8-D-1 H and OSHA-Hazard Communication Standard

2. Provide fire safety training to those civilian employees who have a role in fire safety at this facility and continue officers training.

Standard: 1986 APHA-SCF, Part 8-D-3 O

3. Bloodborne pathogen training should be provided to all employees, civilian and correctional officers, who may be exposed to blood and body fluids as part of their job. This is to include the laundry staff and inmates working in the laundry, as well as correctional officers and other staff in this facility. This is not being done.

Standard: 1986 APHA-SCF, Part 8-D-1 H and OSHA Bloodborne Pathogens Standard

4. All training should be documented.

Standard: 1986 APHA-SCF, Part 8-F-1

C. Housekeeping

Problem:

The entire facility has many areas that are extremely dirty, making these areas unhealthy for the inmates.

Discussion:

In checking the various housing units and reviewing the reports of the District of Columbia Department of Consumer and Regulatory Affairs, it is very apparent that the showers, cells, and storage closets are very dirty, harbor roaches and flies, and are very odoriferous. Showers have corrosion and scum on them. Lt. Bonaparte, who supervises the Environmental Squad which assists in abating sanitary problems, was very helpful during our visits to the housing units. The "Environmental Squad" assists in cleaning common areas such as vent shafts, utility rooms, etc. They also remove trash from the cell blocks. Inside cell blocks, inmate details clean the showers and some cells of those who will not clean their own areas. In SE-3, food cartons and other items were noted in the ventilation shaft in the utility room. Standing water was noted on the floor outside of NE-3.

In S0-2, inmates claimed that they are not provided with buckets and brushes to clean their cells. Sgt. Cooper said that they are given soap, sanitizers, and brushes to clean their cells. The inmates say that sometimes this is done but there are not enough to go around to all cells.

In SW-2, lower left tier, there are broken valves, water standing on the floor, cobwebs, and dirt in the janitor's closet.

In N-2, lower right tier, cell number 55, there are no mattress covers provided; the lavatory runs constantly; floor tiles are missing; moisture is on the floor; and, the cell is generally dirty. In this same area, the utility closet door between cells is filthy and clogged with dust and dirt. Air circulation is impeded especially when smoke evacuation is necessary.

In the intake area, paint is peeling and corrosion exists in the showers and on stall dividers. Scum is on the floor of the shower area and mildew is present on the ceiling.

Cells in SE-3 are dirty and in cell number 56 a yellowish-brown scum was evident in the toilet. The

inmate said only a few brushes are available and they try to get them but are not always successful.

In the two-man cells in NW-2, the cells have very dirty walls and floors.

These are just some examples of the sanitation problems which also include roaches, mice and other insects but which will be discussed in a separate section.

Solution:

1. A Housekeeping Plan must be developed for this facility to include cells, day rooms, storage areas, showers, utility areas, loading dock, and receiving areas. This plan should identify areas to be cleaned, frequency of cleaning, assignments to make sure cleaning is done, procurement plans for securing appropriate and needed items, training needs of jail personnel as to how to obtain needed supplies for their areas, schedules for the cleaning various cells per day, and adequate storage areas for supplies. This must also include a schedule of trash removal from the cell blocks. This is called a "Program Cleaning Schedule or Guide" listing surfaces and fixtures to be cleaned and methods and chemicals to clean these various surfaces and fixtures. If facility personnel can not do this, an executive housekeeper accredited by the National Executive Housekeeping Association could be retained to develop such a plan.

Standard: 1986 APHA-SCF, Part 8-B-5 & 9

2. A routine inspection of all cells must be undertaken weekly by correctional officers and reports of deficiencies sent to the highest ranking person who can effect compliance.

Standard: 1986 APHA-SCF, Part 8-F-2

3. The housekeeping plan should include a schedule whereby all mop heads are cleaned daily or they are used for a short limited number of days, such as one or two days, and then discarded. The laundry does not process the mopheads and I could not find anyone who knew if they were ever cleaned. They must also be put on a programmed cleaning schedule.

Standard: 1986 APHA-SCF, Part 8-5

4. The Housekeeping Plan must include the types of

chemicals and their use strengths, and the types of cleaning implements needed for cleaning the walls, floors, toilets, and showers. The floors should be cleaned, using an appropriate cleaning solution, in a two-bucket system. The buckets must be emptied as they become soiled after cleaning several cells. The buckets must be cleaned and air dried each day.

Standard: 1986 APHA-SCF, Part 8-5

D. Clothing

Problem:

Insufficient underwear, socks, t-shirts, and jumpsuits.

Discussion:

Underwear and socks are not issued at intake. One day each week Officer Smith, the clothing issue officer, sends a package of six socks, six t-shirts, and twelve underwear (shorts) to each cell block to be issued to those inmates supposedly most in need of them. Cell blocks such as SW-2 holds one hundred forty (140) inmates and the small number of socks, t-shirts, and underwear is insufficient. Officer Smith said if he had to issue underclothes at intake he would need more storage space. Because of this, inmates often wash their underwear in buckets and toilets. They say if they send these to the laundry, they may never get them back and they don't have but one or two sets. Some floors have washing machines and dryers for inmates to wash their own personal items, but this doesn't exist throughout the jail. The dryer was broken in one area where provided. Upon admission inmates are issued two shirts and pants or two jumpsuits according to jail personnel. Several female inmates in Housing Unit SO-3 said they got one jumpsuit, one bra, and one pair of underwear. When they turn in one jumpsuit they get one. This is done twice a week. Mr. Singleton, Laundry Superintendent, said that clothing is exchanged twice a week. Mr. Smith, clothing issue person, made very confusing and often conflicting statements as to clothing exchange schedules. He said he has it (the schedule) in his head and it is not written anywhere.

Solution:

1. Adequate amounts of underwear should be provided to all inmates so they can have at least one change of clothing per week.

Standard: APHA-SCF, Part 8-E-1

2. Provide more space in the clothing issue area so this increased amount of clothing can be stored.

Standard: APHA-SCF, Part 8-E-1

3. Increase the equipment capacity of the laundry to handle personal clothing or extend the work hours of the laundry so they can process the increased load.

Standard: 1986 APHA-SCF, Part 8-B-6

4. Personal laundry bags need to be issued to the inmates with their names on them so they can be returned with clothes intact.

Standard: 1986 APHA-SCF, Part 8-E-1 and B-6

5. An alternate plan to increasing the laundry size or capacity is to provide adequate washers and dryers on each cell block and assign tier workers to wash these items. Bags with the inmates name could be used so the bags, with contents could be returned to the correct person.

Standard: 1986 APHA-SCF, Part 8-B-6

6. A written plan must be put in place so there are three exchanges of clean towels per week and one exchange of clothing per week for each inmate. Inmates assigned to work details must be provided with at least three changes of clothes per week. If this takes more clothing, then the current supply may be inadequate and must be corrected.

Standard: 1986 APHA-SCF, Part 8-E-1

E. Purchasing System

Problem:

Inadequate monitoring of requested equipment and non-requests for Material Safety Data Sheets (MSDSs) for chemical items purchased.

Discussion:

During my inspection in August 1994, it was learned that one of the large washers had been non-operational since about June 2, 1994, nearly two months. Mr. Roland

Singleton, who operates the laundry, said that he was told the jail could not get any parts because there is no money. Mr. Singleton is unaware of any further status of the broken washer. Officer Etienne, procurement officer, was contacted and no record of such a request on an appropriate form, BUS 2, could be found. Apparently the request was not put on the appropriate form and no one has been checking to see why the washer is still broken.

It should be noted that inmates fill the chemical containers for the washing machines and no MSDSs are available in the laundry for such chemicals as Fluor-oxide, Perchloroethylene, and Dowper Solvent.

Mr. Fillard of the Receiving Department has no MSDSs.

Also, Officer Etienne stated that no requests for MSDSs have been made when items are requested through her office. In summary, there is no concentrated effort to acquire MSDSs for the chemicals used in this facility.

Solution:

1. All areas of the jail, including the laundry need to be checked and an inventory of all chemical based materials made. Then MSDSs for these materials must be secured from the manufacturers or distributor and kept in locations where personnel who use these materials, including inmates, can be trained how to read MSDSs and how to protect themselves from hazards listed on the MSDSs.

Standard: 1986 APHA-SCF, Part 8-D-1 H and OSHA Hazard Communication Standard

2. Every purchase order for chemicals such as dry cleaning chemicals, cleaning solutions, soaps, bleaching agents, etc. must contain a statement requesting a current MSDS. These should be collected, kept in a central location and copies sent to the areas where these chemicals are being used. Only Sgt. Poe of the Environmental Squad receives MSDSs and if he does not get them for the materials he orders, he calls and requests them. These are only for chemicals he uses.

Standard: 1986 APHA-SCF, Part 8-D-1 H and OSHA Hazard Communication Standard

3. When a request for equipment parts or repairs is made, there must be put in place a system to periodically check and determine if the request is

being processed and if not why! Personnel should be taught which forms are to be used when requesting items.

Professional observation and need to maintain adequate institutional controls.

4. Based on the hazards of the chemicals noted in the laundry area (as will be noted when MSDSs are received and reviewed) environmental sampling for the hazardous chemicals must be undertaken to determine if the inmates (and also facility employees) are being subjected to dangerous levels of these chemicals. I was told that OSHA and District Environmental people have done some type of air studies in the laundry but laundry personnel did not know what tests were done nor the results of such tests. MSDSs state the acceptable airborne levels. I was told by Mr Singleton, Laundry Superintendent, that if there is a chemical spill, he would clean it up with a blanket and discard the blanket. The proper procedures are listed on the MSDS and his stated actions may constitute improper disposal of hazardous materials. Purchased chemicals must be accompanied by MSDSs.

Standard: 1986 APHA-SCF, Part D-1 H and OSHA Hazard Communication Standard

F. Insect and Rodent Control

Problem:

An inadequate and in-effective pest control program now exists at this facility.

Discussion:

Starting in the intake area, roach infestation is very apparent. The reasons include the fact that the showers provide for high humidity in the area, food is eaten in the area, vents are blocked in the clothing storage room, where inmates's old clothes are kept for three weeks, and Sgt. Davis said that the area is not treated for roaches.

Many roaches were noted in the laundry, as it is very warm and humid in the area and the inmates eat there. Roach infestations were noted throughout the facility including the Pharmacy, infirmary bathroom, inmate cells, janitor closets, pipe chases, the dry storage areas of the dietary facility, and the storage areas under the stairs in the cell areas.

Only one rodent burrow was noted on the perimeter of the building near the loading dock but this means there are several more borrow openings concealed in the area. Dead mice and mice droppings and nesting material were noted under the stairs in Units SE-3 and N-2 lower right. Rats were sighted and movement was heard in the warehouse area. The canteen, pipe chases and utility closets show evidence of mice infestation. Officer Hicks, the pest control exterminator and facility Fire Marshall says that he cleans dead rodents from pipe chases and tries to rebait the area. He said the entire jail was once baited but he has not had time to go through the entire jail for rebaiting purposes. He started keeping a log in June of 1994 of the areas treated and baited.

Some types of flying bugs were noted in many showers in the areas surrounding the showers and in the floor drains in front of the showers. They are drawn there because of the constant wet and unsanitary condition of the showers, utility closets, and janitor rooms in the immediate area. Water is standing in the open areas and most probably under and around the showers thereby giving rise to the infestation of these insects.

Officer Hicks stated that spraying of the jail takes place weekly but he also said that the housing units are not completed except every three months. The entire jail is covered approximately only two times a year. No spraying is done in the intake area. Mr. Charles told me that all 1,800 cells and administrative offices are treated every six weeks. This is apparently a goal but is not realistic with the personnel now performing the task. Mr. Charles is the licensed pest control person for nine institutions and four half-way houses in the District. He uses personnel at each facility to perform daily tasks.

Mr. Charles told me that every time he comes to this facility they assign a different person to work with him and he has to again train that person and loses time and momentum in his quest to provide adequate pest control for this facility. Mr. Charles told me that he rotates roach spraying chemicals every two to three weeks. This may not be the best procedure if it takes three months to get back to an area to spray and if resistance to a pesticide is the reason for rotating the materials. Resistance is a factor to be considered, however there should be some written technical information to support this effort. If resistance to some type of synthetic pyrethrins is suspected, there are products which require a long period before resistance is noted.

Solution:

It is my considered opinion that the program now in effect and operated as it was operating in August 1994 is ineffective and needs to be greatly upgraded. I believe a reputable Pest Control Company like Prism could offer this facility the manpower and knowledge base to effectively bring this institution's pest control problem under control. After a concerted effort and control is achieved, they may be willing to train and advise adequate numbers of in-house personnel in the proper methods of pest control. This facility could then maintain the program with oversight by Prism. Special problems could then be dealt with quickly and effectively, thereby preventing the problem from becoming overwhelming. The industry is now using the words "Integrated Pest Control Management" (IPM). This is the effective use of all tools, not only pesticides, to control insects and rodents. Sanitation is a major part of any pest control program as is eliminating entry, travel and ideal harborage sites. I have enclosed an article to give you some idea of the elements of an IPM Program. IPM includes inspections, housekeeping, the elimination of harborage areas, physical, mechanical, and chemical means of control. These include the use of moisture control, temperature control, electric fly traps, glue boards, sealing of openings and the use of general use and restricted pesticides.

Standard: APHA-SCF, Part 8-B-10 and Professional Evaluation

G. Ventilation:**Problem:**

There are areas in this facility where adequate air circulation especially in the shower, utility rooms, storage rooms, and cell areas is not being provided. This leads to odors, mold and mildew build-up, slip and fall events, and insect control problems.

Discussion:

In general, ventilation control is poor and is exacerbated by inmates obstructing the vents in their cells. They do this mostly because they say it is too cold or too hot in an area. I was informed that in the new section of the cell blocks, return air is monitored for temperature control and automatically adjusts. In the old section this is done manually, but because manpower is short, this activity is limited. In these

times, with tuberculosis becoming a major health problem, proper ventilation for disease prevention is very important. The obstruction of vents must become an issue jail personnel will have to deal with during their daily and weekly tours of the facility. If proper balance of air volume and temperature is achieved, I feel most inmates will stop obstructing the vents and enforcement will help with the remaining inmates who insist on such actions.

Ventilation in two-man cells is of special concern. In some areas the mal-odor is very pronounced. Areas where inmates have occluded the vent opening usually fit in this category. APHA Standards call for a minimum of 7 cfm of outside air or recirculated air with 33% being fresh air. Air flow volumes varied from 22-87 cfm in cells in the NW-2 area and from 34-94 cfm in cells in the SE-3 area. In N-2 LR the air volume was measured at 33 cfm and in SW2-LL air volume varied from 31-49 cfm. This is adequate volume, however these measurements were taken at non-occluded vents. Also, please note in many cells, the vents were obstructed because there is too much air and it either makes the cells too cold or too hot. Inmates take charge and effectively block the flow for temperature reasons and interfere with the proper flow of air. Better volume control and temperature regulation could make inmates' actions unnecessary.

Many janitor closets and utility closets where mops and buckets are kept, have inadequate or no ventilation and this leads to mold and mildew build-up, insect harboring, and odors. The vents in the intake clothing store room has been sealed with plastic and the area is very odoriferous.

Solutions:

1. Proper balancing of air in the housing units to provide air at 7-1' cfm per inmate of outside air or recirculated air that has 33% fresh air make-up provided. Higher volumes can be used if temperature controls are adequately maintained.

Standard: 1986 APHA-SCF, Part 8-1

2. Temperature control of at least 65°F during the coldest months must be maintained and temperatures at other times should be comfortable for sedentary type living. If it is too cold in the cells because the combination of low temperature air and high volume, the inmates will continue to obstruct the openings and unbalance the system.

Standard: 1986 APHA-SCF, Part 8-2 E

3. Proper enforcement of the obstruction of the ventilation system by inmates through cell inspections will also help maintain a balanced ventilation system providing comfortable air temperatures.

Standard: 1986 APHA-SCF, Part 8-B-2 E

4. The janitor closets and utility closets need to be properly ventilated so as not to be breeding areas for roaches, flying bugs, mold and mildew, and offensive odors. Ventilation will help dry out mop heads and mop buckets.

Standard: 1986 APHA-SCF, Part 8-B-5

H. Staffing of Maintenance Department

Problem:

Inadequate control of hot water systems in the cell area, inadequate control of temperatures in the housing units, dirty vents in pipe chases, dirty, dingy discolored walls in cells and poor upkeep of the showers in so far as corrosion and mildew are concerned.

Discussion:

The above listed items are items that require painters, not plaster foremen, and plumbers not pipe fitter foremen. In looking at the maintenance staff list of authorized positions only four vacancies exist. Maintenance management, when questioned, said they need plumbers and painters and another locksmith instead of plasterers and pipe fitter foremen. I feel that some positions need to be reassigned to the needed trades. Even though additional personnel may be needed because maintenance personnel from this facility also provide much maintenance at other facilities operated by the Department of Corrections, a reassignment of positions would lessen this need.

Only one locksmith is at this facility and the other authorized position is vacant. If he get sick or goes on vacation a serious problem exists at this facility.

Solutions:

1. Review the authorized staffing levels to determine if the authorized positions meet today's needs.

Professional observation for adequate staffing/maintenance.

2. Bring the maintenance staff up to full authorized level.

Professional observation for adequate staffing/maintenance

3. While implementing item #2 above, reassign those vacancies to needed positions such as painters and plumbers.

Professional observation for adequate staffing/maintenance

4. Current staff allocations need to be changed to reflect current needs. Strict adherence to an old outdated staffing pattern does not appear to be serving this facility well.

Professional observation for adequate staffing/maintenance

5. The position of locksmith must be immediately filled to provide assistance with repairing fire door locks, cell door locks and providing keys for areas in emergency situations. Only the locksmith knew which keys opened the rear stairwells in the housing units.

Professional observation for adequate staffing/maintenance

I. Staffing and Training in the Food Service Area

Problem:

Both civilian staff and inmate staff are below that needed to provide for adequate preparation and delivery of food to the inmates and for proper cleaning and sanitizing food contact surfaces, equipment, walls and floors in the food service area. Inadequate numbers and ill-trained inmate workers present a truly serious food safety issue.

Discussion:

Food contact surfaces are not being properly sanitized as workers are not using a sanitizing agent in the solution used to wipe down these surfaces. This is needed to prevent cross contamination of foods.

Pots and pans are being inadequately cleaned in that food particles were noted on four of four pans checked.

Standing water is in evidence on the floor of the milk refrigerator. Hand soap is not provided at the lavatory in the kitchen and food from a freezer that went out the night before was delayed in being moved to a working unit.

Mr. Sanders, the steward, said that he is authorized to have a thirty-five (35) man detail and he is getting only seven (7) man details. He has four civilian food service workers who have little time to train or supervise inmate workers because they have to actively cook all foods.

On August 2, 1994, on Unit 2N, sliced meat registered 80°F and the beans registered 120°F.

On August 3, 1994, the time delay between tray preparation and delivery to inmates was 30-45 minutes and the spaghetti which had registered 150°F on the serving line now registered 112°F when served to the inmates. Food must be served to inmates at 140°F.

The freezer inside the kitchen registered 10°F and it should be at or very near zero. The garbage disposal unit drain is in bad repair. It is draining to the floor. The meat slicer, which was said to be cleaned, contained food particles. Food was uncovered in the refrigerator.

The blast freezer located in the warehouse registered 48°F and the turkey inside the freezer registered 20°F. Food was still being stored in this inoperative freezer. This was discovered early in the morning and at about noon, a D.C. Sanitarian, Mr. Howard Maupin, had to advise Mr. Fitzgerald that he could use a standing order to get a freezer truck delivered to the jail so the freezer contents could be moved to a properly temperature controlled freezer.

On the day of this inspection, Mr. Fitzgerald, the Food Steward, said that there were not enough single service trays for dinner, but he expected a shipment to arrive very soon. There is inadequate storage space provided.

A hand sink was being used for cleaning foods and this must be stopped. A three-compartment sink was not being used correctly.

Solutions:

1. Adequate inmate staffing to a full complement (long term inmates should be considered for this detail) will allow the civilian staff to supervise and train the inmate workers so that the problems noted in the discussion can be corrected.

Standard: 1986 APHA-SCF, Part 8-B-4-2

2. More training for the Food Steward and the four civilian workers so that they can transmit proper food handling information to the inmates. Knowledge of the ability to activate a standing order for a freezer trailer when a freezer breaks needs to be provided to all supervising personnel, especially the Food Steward.

Standard: 1986 APHA-SCF, Part 8-B-4-2

3. Adequate food supplies and cooking and holding equipment should be reviewed in light of routine operations and especially during disaster situations. More storage space is needed.

Standard: 1986 APHA-SCF, Part 8-B-4-3 & 4

4. The proper way to set up a three-compartment sink must be better transmitted to those responsible for equipment cleaning and sanitizing.

Standard: 1986 APHA-SCF, Part 8-B-4-2

5. A system must be put in place so food service equipment and systems can be quickly (without delay) repaired.

Standard: 1986 APHA-SCF, Part 8-B-4-3

J. Fire Safety

Problem:

Fire safety issues such as the flammability of mattresses used in this facility, obstructed fire dampers, an inoperative fire department notification system, the absence of a hot work permit system, inadequate knowledge of fire extinguishers, and the lack of a written preventive maintenance and servicing schedule for fire extinguishers are serious problems that must be corrected. Smoke detector testing is not being routinely accomplished and documented. There are no extinguisher service contracts for refilling ABC and CO₂ extinguishers nor is hydrostatic testing part of a service contract.

Fire drills must be conducted in all areas and on all shifts.

Discussion:

Neither the flammability of the covered foam mattresses and the cotton mattresses nor the provision of mattress covers for each inmate upon assignment to a cell, could be determined. Because some foams emit very toxic combustion products this information is needed. Also, because of the dense population in this facility these need to be as fire resistant as possible.

Hot work permits should be issued at a central point, either at the command center and/or at the maintenance office before either jail maintenance personnel or outside contractors are allowed to do any hot work, welding or cutting, in the jail. The permit lists pertinent fire safety instructions to those doing hot work. Also, when the job is completed, correctional officers and/or correctional facility maintenance personnel can go back to the area later to check for any smoldering fires. An example is appended to this report.

In the clothing issue area, there is a flex conduit traversing the openings in the fire damper and this prevents the fire damper from closing properly.

When the Coded Gamewell Fire Alarm Manual Station, located in the Command Center, was activated in order to directly notify the fire department of a mock fire emergency at this facility, the unit did not work.

Corporal Hicks answers to Lt. Bonaparte and keeps tract of fire extinguishers and their monthly checks, yearly maintenance inspections, six year refills, and twelve year hydrostatic tests. No written Departmental Operating Procedure (DOP) exists for this function in so far as I could determine. A water extinguisher in 2-SO had no pin in it. The water extinguishers in the laundry had no pin in one of them and the pin was pulled on the other one. The last annual maintenance of these extinguishers was September 1992, which is greater than one year. The gauges indicated that the extinguisher maintained a full charge. In the clothing issue area one carbon dioxide (CO₂) extinguisher had no pin or seal on it and no inspection date was noted on it. The gauge on the water extinguisher in the clothing issue area was in the "unsafe" zone and it had not been checked since April 1992.

In Unit NE-3, Correctional Officers T. Jenkin and C. Bush

did not know what type of fire the CO₂ extinguisher was effective against. Officer Jenkin could not lift the extinguishers. The safety pin on the CO₂ extinguisher had been pulled out of its proper position. The water extinguisher in the bubble had no pin in the extinguisher handle and it had been discharged. Neither officer had reported the condition of these extinguishers nor really knew how to use these extinguishers. In the bubble of N-1, two ABC extinguishers had been discharged. One pin was in place and the other one was missing, however the condition of the extinguisher had not been reported.

Smoke detectors were checked one time when they were installed about a year ago. Mr. Simpson stated that these are single station smoke detectors and only sound in the area where smoke or a fire is detected. No smoke detectors are in the air return system according to Mr. Simpson.

Fire extinguishers are checked monthly and this is documented on the grey sticker on each extinguisher. Carbon dioxide (CO₂) extinguishers are weighed if they do not have a pressure gauge on them. A policy needs to be developed stating how yearly maintenance and inspection service, six year refilling and inspections and twelve year hydrostatic tests will be carried out since service contracts for these services do not exist.

Fire drills are never conducted on the 10:00 p.m. to 6:00 a.m. shift when the laundry is operational according to laundry personnel.

Solutions:

1. The flammability of all mattresses used in this facility must be determined and those not providing adequate fire protection should be discarded. Foams should be checked to make sure they do not give off toxic combustion products.

Standard: 1986 APHA-SCF, Part 8-D-3 A & C

2. A "Hot Works Permit System" with appropriate DOP should be instituted for this facility.

Standard: 1986 APHA-SCF, Part 8-D-3 E & B

3. The flex conduit traversing the fire damper in the clothing issue area must be removed and re-routed.

Standard: 1986 APHA-SCF, Part 8-D-3 F

4. The Gamewell Fire Alarm Manual Station needs to be repaired so a direct signal of a fire emergency can be sent to the D. C. Fire Department.

Standard: 1986 APHA-SCF, Part 8-D-3 J

5. A Departmental Operating Procedure must be developed to set forth the time table and actions to be taken with reference to the upkeep of all fire extinguishers in this facility after a complete fire extinguisher inventory has been made. Monthly checks of all extinguishers must be undertaken to help find and replace defective extinguishers.

Standard: 1986 APHA-SCF, Part 8-D-3 J

6. Proper fire extinguisher training must be undertaken at this facility and such training must be documented.

Standard: 1986 APHA-SCF, Part 8-D-3 O

7. Smoke detectors must be provided in sleeping areas, areas of public assembly, in boiler rooms, kitchens, laundry, shops, and other work areas of the facility. The detectors now in place must be checked at least twice a year or at a frequency that can assure the proper operation of these units.

Standard: 1986 APHA-SCF, Part 8-D-3 K

8. A fire extinguisher policy must be developed that includes provisions delineating how monthly checks, annual maintenance inspections, six year refills on ABC extinguishers and twelve year hydrostatic testing will be accomplished and documented.

Standard: 1986 APHA-SCF, Part 8-D-3 J

9. As per APHA Standards, fire drills that include building evacuation when possible must be conducted at least twice annually for each shift and the results documented and drills critiqued. More frequent drills are recommended such as quarterly for each shift.

Standard: 1986 APHA-SCF, Part 8-D-3 N

K. Lighting in Cells and Janitor and Utility Closets

Problem:

Lighting levels in cells are below APHA Standards and impede good sanitation, personal hygiene and a safety. Lights in many janitor and utility closets are either inoperative, missing bulbs, or devoid of fixtures. Adequate lighting is needed to properly clean the mops, buckets, and other items stored in these utility or janitor's closets.

Discussion:

Lighting levels in cells are very low. Examples are noted below but please note, not all cells were checked.

<u>Location & Cell No.</u>	<u>Lighting Levels in Footcandles</u>
SW-2 Cell #26	<20 f.c.
SW-2 Cell #30	<10 f.c.
SW-2 Cell #74	<10 f.c.
N-2 Upper Left Cell #16	No Lighting
N-2 Medical Room	24 f.c.
SE-3 Cell #65	<10 f.c.
SE-3 Cell #53	<10 f.c.
NW-2 Cell #54	17 f.c.

Bulbs are missing in many utility or janitor's closets, the fixtures are broken, or the fixtures were never put in these closets. Cleaning of mops and other cleaning utensils can not be properly carried out in dark closets.

Solutions:

1. Adequate lighting must be installed to provide minimum lighting levels in cells at 30 f.c., and in medical rooms at 30-50 f.c.

Standard: 1986 APHA-SCF, Part 8-B-7 and American Society of Illuminating Engineers Standards (ANSI)

2. Bulbs must be replaced in closets where they are missing or burned out. Electrical repairs may have to be made in some closets on the tiers. New fixtures will have to be installed in closets that have none.

Standard: 1986 APHA-SCF, Part 8-B-7

L. Hot Water for Showers and Lavatories

Problem:

In some areas the hot water temperature in showers and at lavatories varied from low (inadequate) to very high (scalding).

Discussion:

Examples are noted below. Please note that not all locations in this facility were checked.

<u>Location</u>	<u>Hot Water Temperature</u>
Shower SO-3	81°F
Lavatory SE-3 Cell #56	138°F
Shower 2-South	100°F
Lavatory N-1 Cell #55	No Hot Water
SW-2 Cell #26 Lavatory	77°F
SW-2 Cell #30 Lavatory	78°F
N-2 Cell #55 Lavatory	No Hot Water
N-2 Lower Right Shower	80°F
N-2 Cell #65 Lower Right Lavatory	No Hot Water
N-2 Cell #16 Upper Left Lavatory	87°F
SE-3 Cell #65 Lavatory	130°F
SE-3 Cell #53 Lavatory	138°F

I was told that lavatory hot water is provided from boilers in the penthouse area and that they are not the fast recovery type. Hot water for showers comes from hot water heaters on each floor and control should be possible.

Solutions:

1. Replace the hot water heating units in the penthouse with new fast recovery type and then control at these fixtures can be maintained in the optimal range of 105-120°F but as near to 110°F as possible.

Standard: 1986 APHA-SCF, Part 8-B-8 and 8-D-1 E

2. Better regulation of shower water temperature through proper settings on the mixing valves should be undertaken. The hot water heaters in the units should be regulated better.

Standard: 1986 APHA-SCF, Part 8-B-8 and 8-D-1 E

3. The missing hot water valve rods must be replaced in order that hot water can be provided in all cells. Inmates should not have access to the equipment chases between cells where they can remove these rods and make shanks. These rods do

no appear to be able to be removed from the front of the lavatory inside the cell.

Standard: 1986 APHA-SCF, Part 8-B-8

M. Plumbing

Problem:

Several fixtures are not properly plumbed to drain and backsiphonage protectors are not being used to protect the potable water system from contamination due to back-flow.

Discussion:

Even though all areas were not checked, the following are examples of this problem.

- There are three hose bibs on sinks in Receiving and Discharge which are not protected by vacuum breakers.
- In the laundry area toilet room, the sink is cracked and the pipe under the sink leaks water on the floor. No towels are provided in this toilet room.
- Generally accepted practice dictates that fixtures (sinks) used to wash utensils and equipment have a solid waste line connection to the sewer pipes.
- Sinks used to wash (soak) foods, such as lettuce, chickens, etc. are not normally hard connected to the sewer but rather have indirect waste lines to a floor drain. This is done to protect food from being contaminated. While unattended, a drain line may back up into the sink where foods are located and then clears itself out very quickly, thereby contaminating the food without anyone knowing this ever happened.
- The hot water in the mop closet in the main kitchen will not stop flowing. The valve is leaking.
- There is a submerged inlet in the mop closet which is not protected by a vacuum breaker and which has the potential to contaminate the potable water supply.
- The lavatory faucet in SW-2 Cell #26 will not turn off.

Solutions:

1. It should be noted that maintenance managers feel they need more plumbers and not pipe fitters to correct the above problems.

Professional evaluation

2. Vacuum breakers must be provided at all hose bibs to prevent back siphonage.

Standard: 1986 APHA-SCF, Part 8-B-8

3. All plumbing pipes from fixtures must be properly plumbed.

Standard: 1986 APHA-SCF, Part 8-B-8

4. Severely cracked sinks must be promptly replaced.

Standard: 1986 APHA-SCF, Part 8-B-8

5. Broken or leaking faucets need to be repaired.

Standard: 1986 APHA-SCF, Part 8-B-8

N. Electrical

Problem:

Electrical outlets in wet areas are not protected by Ground Fault Circuit Interrupters (GFCI) and these devices can protect people from shock in areas around sinks in the kitchen and medical areas. Some outlets are broken or cracked and some have no tension on the hot, neutral, or ground prongs thereby possibly causing a spark and fire. Some power cords are frayed and plugs broken.

Discussion:

In the laundry area, the electrical receptacles near the maintenance cabinet have no tension on the hot, neutral, nor ground prongs.

In the laundry area the ground prong on the fan power cord is broken and needs to be repaired.

In the Pharmacy, electrical cords are draped behind the sink and the outlet is within one (1) foot of the sink. No GFIC is provided.

The electrical outlets in the hall in N-2 lower right are cracked and must be repaired.

The electrical outlets in the hall of N-2 lower right are not protected by GFCIs.

Solutions: (In conformance with NFPA-70 National Electric Code)

1. All electrical outlets should be tested for polarity and tension. Those found to be wired improperly or having no tension on the hot, neutral, or ground prong must be repaired and or replaced.

Standard: 1986 APHA-SCF, Part 8-B-3

2. The ground prongs on the plugs of the equipment must keep remain intact to prevent a shock hazard.

Standard: 1986 APHA-SCF, Part 8-B-3

3. All electrical receptacles within close proximity of sinks or lavatories (i.e. wet areas) must be protected by ground fault circuit interrupters.

Standard: 1986 APHA-SCF, Part 8-B-3

4. Frayed power cords must be replaced.

Standard: 1986 APHA-SCF, Part 8-B-3

5. All cracked, burned, or broken wall receptacles must be repaired or replaced.

Standard: 1986 APHA-SCF, Part 8-B-3

0. Asbestos

Problem:

Asbestos, if released into the air and breathed by people, can cause asbestosis, mesothelioma, and other stomach and lung diseases or abnormalities. Many asbestos insulated pipes in the laundry area are in need of repair, especially on the ends. No asbestos management plan could be produced for this facility.

Discussion:

Mr. Burgess said that he remembered that an OSHA inspector did check the laundry about five year ago.

Some abatement was undertaken when new laundry equipment was installed. No management plan exists for this facility.

Solutions:

1. Repair loose and frayed asbestos materials.

Standard: 1986 APHA-SCF, Part 8-A-2 and OSHA and EPA

2. Enlist the support of a private Asbestos Inspector/Management Planner or a D. C. Environmental Quality person knowledgeable of asbestos inspections and management plans development to help inspect the facility and develop a Management Plan for handling the asbestos remaining in the building.

Standard: 1986 APHA-SCF, Part 8-A-2 and OSHA and EPA

P. Emergency Power and Lights

Problem:

There are three emergency generators which according to facility personnel are supposed to be exercised for one hour per week and tested under full load for one hour per month. This is not being done. When the generators are operating, all the systems that are supposed to be on the emergency circuits are not being checked and the information recorded. Also, there are battery powered emergency light packs in some of the bubbles that are not on anyone's maintenance schedule and several did not operate when tested. Noise levels are a problem when these emergency generators are running in enclosed areas.

Discussion:

I was told that monthly testing under full load is the policy at this jail, however records indicate that this was not done in January, February, or March, 1994, and not since February 1992 in the South Tunnel. I was told by a maintenance worker who just transferred back to the jail that when he was at this jail, monthly load testing was done and now that his is back at the jail, he will make sure it is again done properly.

Excessive noise levels were recorded in the North Tunnel when the generator was tested. The sound level reached a steady 108 dBA. Sound attenuating ear protection, ear muffs, ear plugs, etc. having at least a 30 Noise Reduction Rating must be utilized if a worker is to stay

in the area with the generator operating.

Also, the battery powered emergency lights in the bubbles need to be operational in case of an emergency outage.

Solutions:

1. Weekly testing and monthly full load testing in accordance with emergency generator manufacturers' instructions must be routinely performed and documented.

Standard: 1986 APHA-SCF, Part 8-B-3 and 8-F-2

2. The battery operated emergency lights in some bubbles must be put on a routine, weekly or monthly, preventive program and these checks must be properly documented.

Standard: 1986 APHA-SCF, Part 8-B-3 and 8-F-2

3. Proper hearing protectors of at least 30 Noise Reduction Rating must be worn inside the generator area when they are operating.

Standard: 1986 APHA-SCF, Part 8-D-5 and OSHA Standard

Q. Overcrowding and Inadequate Number of Showers

Problem:

Overcrowding exists in double bunked two-man cells and the showers in all areas are inadequate in number for the occupancy especially in the double bunk cells.

Discussion:

The gross size of the cells is only about 68 square feet. Considering the space occupied by the bed, 60 square feet of floor space indicated as a requirement in the APHA Standards is not being met.

The situation becomes extremely serious in the two-man cells where the APHA Standards call for 120 square feet of floor space and less than 60 square feet is being provided.

Also, the APHA Standards call for one shower for every eight inmates and in the single man cell area the ratio is 1:10. In the double bunked cells the shower to man ratio is 1:20.

Solution:

Discontinue two-man cells or provide at least three more showers in these areas.

Standard: 1986 APHA-SCF, Part 8-E-3 C and Part 8-E-4 A

R. Disaster Preparedness

Problem:

Other than the fire safety and evacuation plans and the work stoppage plan there appears to be no hurricane, winter storm, tornado, flooding, earthquake, utility (electricity and water) outage, or civil unrest plans developed for this facility in so far as I could determine.

Discussion:

Emergency plans for all natural and man-made disasters that could reasonably be anticipated to occur in the area need to be developed and tested in conjunction with the D. C. emergency operations and planning units. This should include communications, food and water service, life safety, personnel deployment, and medical services.

Solution:

Prepare the needed emergency planning documents, train all personnel, and then annually test the system to determine if the plan meets the needs of the facility in emergency situations.

Standard: 1986 APHA-SCF, Part 8-D-2

S. Inadequate Bedding

Problem:

Many mattresses, including foam and cotton ones were noted without mattress coverings. The blankets are so worn, many are down to the weave only.

Discussion:

Mattress covers are needed for fire prevention purposes, sanitary reasons, and comfort. Blankets with some thermal insulating capability are needed for comfort when sleeping.

Solutions:

1. Provide mattresses with fire retardant covers where applicable and at least 2 sheets or 1 sheet and a mattress cover for cotton type mattresses. Sheets, mattress covers, and pillow cases must be changed at least weekly.

Standard: 1986 APHA-SCF, Part 8-E-2

2. Replace the old worn blankets with thicker, more comfortable ones that still retain some thermal insulating properties.

Standard: 1986 APHA-SCF, Part 8-E-2

T. Barbering

Problem:

Inmates are performing barbering procedures in an insanitary manner.

Discussion:

Skin disease may be transmitted either through direct contact or by objects such as towels, combs, or clippers.

Solution:

Combs, clippers and similar objects must be routinely sanitized between use on different inmates. Common brushes are not to be used. Also hands must be washed with soap and running water before cutting the next person's hair.

Standard: 1986 APHA-SCF, Part 8-C-3

U. Safety Issues in The Laundry

Problem:

Many steam pipes are not insulated at all. Eye protection and eye wash fountains are not provided in the laundry.

Discussion:

The uninsulated pipes can cause severe burns if accidentally touched. Several chemicals, including a corrosive one, are used in the laundry by inmates and these materials can damage the eyes, if splashed in them.

Solution:

1. The pipes must be insulated with non-asbestos material.

Standard: 1986 APHA-SCF, Part 8-D-1 E

2. Provide suitable eye protection and eyewash fountains in the laundry.

Standard: 1986 APHA-SCF, Part 8-D-1 D & G & H and OSHA Standard

V. Bloodborne Pathogen Training and Supplies

Problem:

Areas such as the medical area and just about any area in the jail because of accidents and fights, may subject personnel to exposure to blood and body fluids. No sanitizing agents could be located in the medical facility nor on the tiers.

Discussion:

HIV and Hepatitis, as well as other bloodborne pathogens can be transmitted by blood and body fluids and medical and correctional officers are potentially exposed to these substances. Training, personal protective equipment, vaccines, and sanitizing agents are needed to protect jail personnel.

Solution:

1. Provide the Hepatitis Vaccine for those subject to exposure.

Standard: 1986 APHA-SCF, Part 8-D-1 H and Appendix II

2. Train personnel how to protect themselves by wearing personal protective equipment when cleaning up a spill of blood or body fluids.

Standard: 1986 APHA-SCF, Part 8-D-1 G and 8-F-1

3. Provide proper sanitizing solutions and waste bags, so that spills can be properly cleaned and sanitized and the waste properly discarded in red or properly labelled bio-hazardous bags.

Standard: 1986 APHA-SCF, Part 8-D-1 H and Appendix II

W. Outdated Medical Supplies

Problem:

A box of 0.9% Sodium Chloride Injection, Lot #C215 94 7 with the expiration date of June 1994 was noted in the medical unit on a cart in the hallway on August 2, 1994.

Discussion:

Outdated medical supplies could lose their effectiveness.

Solution:

Discard this box and retain properly dated materials.

Standard: 1986 APHA-SCF, Part 8-C-4 B

X. Self-Contained Breathing Apparatuses (SCBA)

Problem:

SCBAs need to be positioned where they can be used for rescue purposes, by trained, medically fit, personnel.

Discussion:

Two (2) airpaks are in one of the floor control stations and one (1) unit is in the Fire Marshall's Office.

Solution:

Personnel need to be medically qualified and properly trained to use SCBAs. The units must be located where qualified personnel can have ready access to them.

Standard: 1986 APHA-SCF, Part 8-D-3 L & O and Part 7-C-3

Y. Askarel Liquid Filled Transformers

Problem:

Documents describing the electrical distribution system indicate that Askarel, an oil containing Polychlorinated Biphenyls, which are said to be carcinogenic, is the transformer oil used in this facility.

Discussion:

Leaks of this material or spread of this material in smoke should the transformers catch on fire and explode could subject personnel to PCBs and the entire facility could become contaminated.

Solution:

The transformer can be replaced or retro-filled with non-PCB containing cooling oils.

EPA Standard and Toxic Substances Control Act

III. Conclusion

There are many problems existing in this facility and not all require additional resources but the better application of existing resources. Yes, lighting, pest control, ventilation system balancing, more clothing and storage space, more refrigerated storage space and more housekeeping supplies will cost money but many things can be done in-house with current staffing. Some positions may no longer be needed and they can be replaced with the types of personnel that will help improve the facility. Training, written DOPs, and documentation should not cost very much to improve.

Overall this facility can be greatly improved if the steps outlined in the body of this report are implemented.

IPM

What's it all About Anyway?

by Eric Snell

When you think about the term Integrated Pest Management (IPM), do you automatically think of sticky traps and bait stations? Do you think about accounts that will "accept a few bugs?" Are you reminded of accounts with pests that the previous pest control company had left uncontrolled while trying to caulk cracks and use sticky traps?

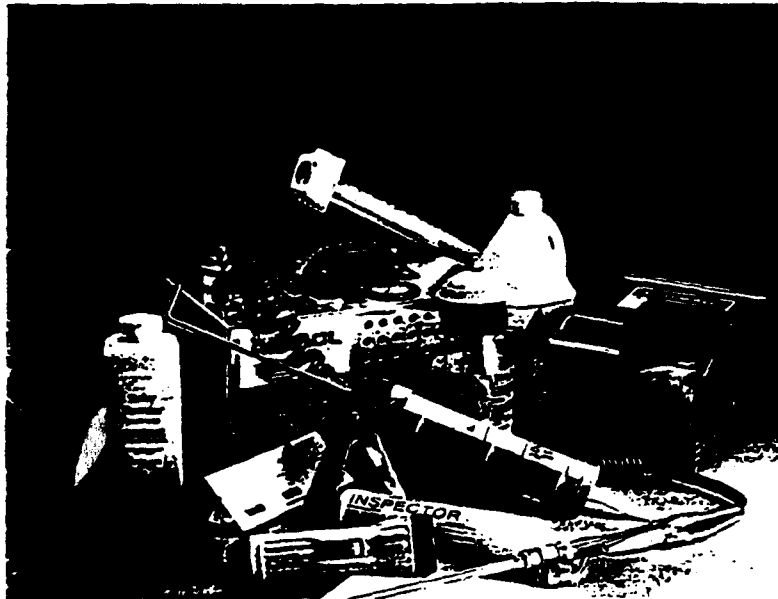
Are you currently trying to dig through the debris of information to incorporate various components of IPM into your own programs? This article will discuss what components should be considered crucial to the success of any IPM program without sacrificing program effectiveness.

Integrated Pest Management means having access to a wide variety of tools to solve pest problems in the most effective and efficient manner possible. All too often, when describing IPM, only the products are considered. For instance, the effectiveness of a particular bait, sticky trap, or vacuum cleaner is documented. IPM is more. It is a process that implies an understanding and use of an equal balance of methods and less dependency on one particular tool.

What is Not IPM?

Integrated Pest Management has been defined in hundreds of ways. However, after years of being the "buzz word" for the pest control industry, perhaps it is best to

Integrated Pest Management is more than eliminating pesticides. It's knowing about the insects you treat, and staying one step ahead of them.



Some tools used for effective Integrated Pest Management include flashlights, caulking guns and non-toxic tracking powder, in addition to traps and baits.

explain what is not IPM. A perfect example of abusing the term IPM is a situation in which a company uses cockroach bait stations as their "Integrated" program and then places them in the middle of a wall. This is not IPM!

In this example, the company has failed to properly train the techni-

cian on the use of this new tool or provide adequate understanding of cockroach movement and habits. Other examples of what is not IPM include:

- Telling someone that they need to clean their drains to solve a fruit fly problem, and *not* providing further assistance.
- Removing a tool used too often, such as a dust bulb, to force a technician to use other tools.

Evaluating IPM Needs

The first step toward effectively using IPM is choosing the tools and methods for a particular pest management program. It is important to be familiar with all of the tools and methods available, and then determine how effectively each meets the specific needs of an individual program. For instance, one aspect of a German cockroach management program is monitoring. To meet this requirement, the possible tools include: flashlights, sticky traps, double stick tape and various chemical flushing agents.

Obviously the flashlight is a must for any program. The remainder of the list is variable, and

depends on the needs of your program. Sticky traps may be considered a priority during the long periods between services. The particular flushing system(s) you choose may depend on a number of issues. For example, do you perform all services at night? Does the customer prep the

continued on page 76

kitchen for each service? Do two technicians perform every service?

Effective IPM programs can be devised by summarizing the needs of your accounts and considering all of the options carefully. Once the tools have been determined, training programs should be completed for each method.

When an adequate balance of tools and methods is not included into the program, problems are likely to occur. A perfect example involves an IPM program that depended upon sticky traps as the primary means of inspection. The monitors were placed in precise locations throughout a commercial restaurant. One particular location was in the back corner on a shelf under a table. This trap had no cockroach activity for months. A kitchen employee recognized that the technician was not controlling the cockroaches in that location and complained that he had been seeing cockroaches on the table.

After flushing with pyrethrins, a large number of cockroaches were flushed from the framing of the table, not one foot from the trap! In this illustration the cockroaches were foraging for food on the table and on the floor and had no reason to move in the direction of the trap (i.e. onto the shelf). This example is not intended to diminish the value of the sticky trap, but to caution against the dependence on only one tool for a specific program need.

Selecting the Tools

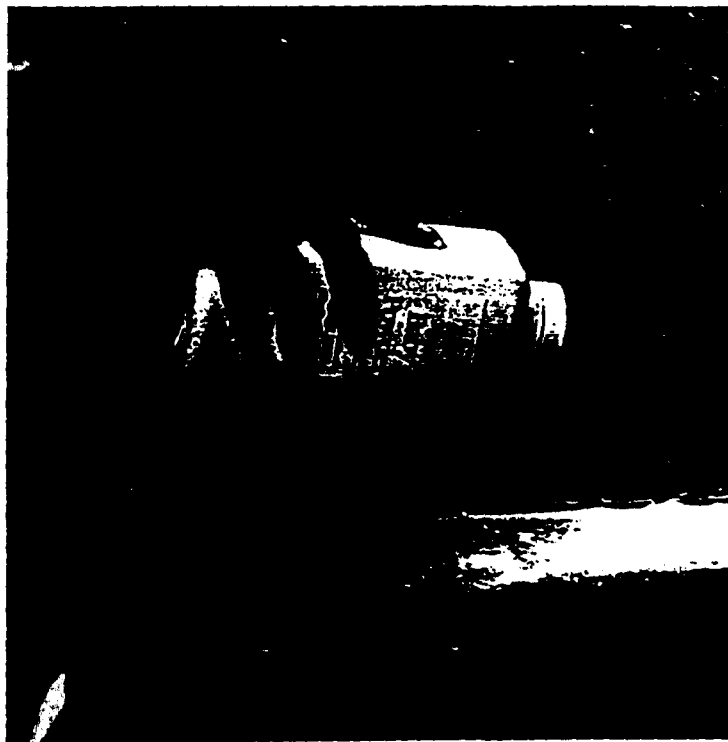
An IPM approach to a typical pest problem will normally require: inspection methods, methods for eliminating pests as they are sighted.

control methods between service calls (i.e. baits), void treatment methods, exclusion methods and communication with the customer. A few examples of tools and techniques that fit each of these needs are reviewed here.

Inspection Methods: All programs should include methods of inspection. The best approach should involve on-site method(s) as well as inspection systems that can monitor pest activity between services.

Following is a list of tools that can be used:

- flashlight
- flushing agents (mixed or pre-packaged)



Using non-toxic powder, such as baby powder, can be used in an IPM program to track rodents.

- compressor powered void injection equipment
- sticky traps & glueboards
- tracking patches of non-toxic powder
- inspection mirrors & graph paper
- reference books

Elimination of Pest Sightings: It is often necessary to provide at least one method for quickly killing pests when they are found in an area. For example, when an ant nest is located under a carpet or cockroaches are

found in a crack, immediate kill may be required. Certain chemical formulations and active ingredients provide instant results. For accounts such as nursing homes or hospitals, various types of vacuums may be the ideal choice for eliminating pests when sighted.

Between Service Control Methods: In most situations it is possible to immediately eliminate only a certain percentage of a pest population. Many of the remaining pests can be controlled with products that work between services. Baits are an excellent example, since this method causes little disruption of pest behavior. For methods to be effective between services, it is most efficient to use tools that allow the pests to live naturally, instead of avoiding chemical residues.

Cockroach bait stations actually provide two crucial components for pest survival including food and harborage. Other "between service" methods can be used to exploit known pest activities. For example, glueboards can be successful in controlling occasional invaders (such as crickets) entering under doors and moving close to the edge of walls. By understanding how crickets may enter a house, glueboards can be used to intercept them before they are sighted by the customer.

Some of those tools include:

- cockroach baits
- ant baits
- rodent baits
- rodent traps - snap traps, multi-catch traps, glueboards
- fly traps jar, light, baited glueboards, etc.)
- glueboards

Void Treatments: When pest infestations are identified inside voids and out of reach, a variety of methods for treating each pest and/or void should be available. For instance, an ant nest in a wall void with insulation may require baits, but an ant nest in a hollow void may be treated with dusts or aerosol-type formulations. Effective programs should include treatments for specific voids, using:

- dusts

continued from page 76

- aerosol-type sprays
- baits

Exclusion/Prevention: IPM programs should include preventing pest entry into an area, as well as minimizing ideal harborage sites. Once the population is eliminated it will be important that the service focuses on long-term prevention of pest infestations.

It is often necessary to use combinations of exclusion methods. For

instance, if the account is pest free, but the adjacent facility is infested, you may need to caulk around pipes and baseboards as well as use repellent dusts and/or liquid residuals inside and around the adjoining wall in order to keep cockroaches from moving into your account.

Following are tools that can be used:

- chemical exclusion (repellent dusts or liquids)
- caulking and stuffing material (insect and rodent)

- air curtains
- plastic strips for doors
- screen doors
- door sweeps

Communication: The customer should be included as part of any solution, but they should never be used as an excuse for unsolved pest problems. It is critical that the customer understand the length of time before results can be expected and how they can help achieve good results.

- show the customer the pest breeding sites
- provide detailed instructions on how to clean problem areas
- inform the customer as to how they can help your IPM methods (don't move equipment, don't spray around baits, etc.)
- provide printed information
- follow-up on any promises to the customer

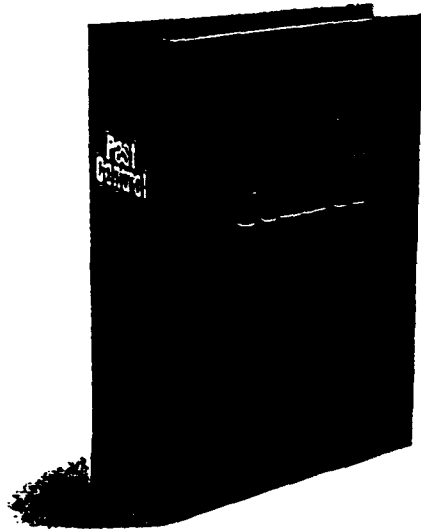
Once you have evaluated the needs of your individual programs, it will be important to compile a list of tools and pest management methods that will include a variety of solutions, such as those just discussed. Any one solution may be used for different programs. With more overlap between programs, there will be more efficient strategies and less training will be required.

Summary

Integrated Pest Management is more than the use of a few token tools. It is important to keep an open mind to the methods available to you as opposed to the brand name products. Having an adequate selection of tools and proper training to make decisions are the fundamentals of IPM.

To establish effective IPM, the pest management needs of individual programs must be determined. Tools should then be selected to provide a full range of solutions for the wide variety of problems confronted. After the methods are chosen, training and learning must be a constant focus of any company. PC

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Eric Snell is a technical director at B&G Equipment Co., Plumsteadville, Pa.

SECTION 19: ELECTRICAL-DISTRIBUTION SYSTEMS

A. POWER DISTRIBUTION

I. PURPOSE

The ELECTRICAL POWER DISTRIBUTION SYSTEM consists of three incoming primary lines from the Potomac Electric Power Company (PEPCO) feeding four substations to transform the 13750 three phase primary voltage to an utilization level of 480/277 volt grounded wye 3 phase 4 wire system.

The system is a secondary network arrangement wherein each substation has two primary entrance switches, one for each of two transformers, with each primary switch fed from a different primary line and the secondaries of the two transformers paralleled through their individual network protectors forming a system with an extremely high service reliability.

Since the loss of any feeder or primary transformer will not cause any loss of power and the loss of any two primary feeders or transformers at the same time cannot most only cause partial loss of power to the entire complex, and in that case only if the two primary feeders lost are feeding the same substation or if both transformers in the same substations fail.

II. DESCRIPTION

The three incoming primary electric services from PEPCO, enter the facility on the west side in an underground duct bank which passes between the north and south cell modules, and continue underground below the Male Inmates Recreation Yard and terminate in the Primary Switchgear located in the Administrative Module Basement Electrical Substation

two primary feeders, one to each end of the substation. The feeders for each substation are as follows:

<u>SUBSTATION</u>	<u>Line #1</u>	<u>Line #2</u>	<u>Line #3</u>
<u>NORTH CELL MODULE SUBSTATION</u>			
750 KVA Transformer (A)	x		
750 KVA Transformer (B)		x	
<u>SOUTH CELL MODULE SUBSTATION</u>			
750 KVA Transformer (A)	x		
750 KVA Transformer (B)		x	
<u>ADMINISTRATIVE MODULE BASEMENT SUBSTATION</u>			
1000 KVA Transformer (A)	x		
1000 KVA Transformer (B)			x
<u>ADMINISTRATIVE MODULE PENTHOUSE SUBSTATION</u>			
1000 KVA Transformer (A)		x	
1000 KVA Transformer (B)			x

Each primary feeder to its double ended substation is connected to the transformer through a 3-position oil selector switch having a ground, line and open position.

Transformers are non-flammable Askarel liquid filled, air cooled with 2 - 2½% rated KVA taps in the high voltage winding to allow for setting secondary above and below rated voltage of the primary system. Tap changer is operable in the de-energized position only.

Page 3
Staffing Authority

	<u>AUTHORIZED</u>	<u>ON BOARD</u>	<u>VACANCIES</u>
<u>MAINTENANCE STAFF</u>			
DS-12 Facility Manager	1	1	0
SW-12 Bldg. Maint. Gen. Fore.	1	1	0
RW-11 Maint. Mechanic	3	2	1
SW-10 Maint. Mech. Foreman	2	1	1
SW-10 Electrician Foreman	1	1	0
SW-09 Electrician Foreman	5	5	0
SW-09 Mason Foreman	1	1	0
SW-09 Plaster Foreman	2	2	0
SW-09 Metal Worker Foreman	1	1	0
SW-09 A/C Equip. Mech. Fore.	6	6	0
SW-09 Pipefitter Foreman	5	4	1
SW-09 Laundry/Kitchen Mech	1	1	0
SW-08 Mech. Parts repairer	1	1	0
SW-08 Paint Foreman	1	1	0
SW-08 Locksmith Foreman	2	1	1
SW-06 Electronics Foreman	1	1	0
DS-06 Supply Technician	1	1	0

FOR WELDING AND CUTTING OPERATIONS
OUTSIDE OF THE WELDING SHOP

CUTTING-WELDING-HOT WORK PERMIT

IMPORTANT: Precautions on reverse side must be followed.

Date _____

Building & Dept. _____

Floor & Room No. _____

Time Started _____ Estimated Completion
Date/Time _____

Work Done _____

If Fire Occurs, Phone Security at _____
and Activate the Building Fire Alarm

Foreman _____

Shop & Dept. _____

Signature of
Responsible Employee _____

COPIES TO: \ Maintenance.

Security,

SEE OTHER SIDE

DANGER PREVENT FIRES

DO NOT CUT, WELD, OR USE OTHER OPEN-FLAME OR SPARK-PRODUCING EQUIPMENT UNTIL THE FOLLOWING PRECAUTIONS HAVE BEEN TAKEN:

The location where the work is to be done has been personally examined.

1. Sprinklers, if provided, are operational and will not be shutdown until this work has been completed.
2. There are no flammable or combustible materials in the work area. Drums, tanks, equipment, or other containers in the area previously containing such materials have been properly purged.
3. Work will be confined to the area or equipment specified in the permit.
4. Floors and surroundings have been swept clean. Wood floors have been wet down or properly covered with flame retardant covers.
5. Adequate portable fire extinguishers have been provided and fire hoses, if available, are accessible and operational.
6. All combustibles have been located 25 feet from the work area or properly covered with metal guards or flame retardant covers.
7. All floor and wall openings within 25 feet of the work area have been properly covered.
8. A responsible worker has been assigned to watch for sparks in the area and on the floors above and below.
9. Flame or spark-producing equipment to be used has been inspected, found to be in good repair, and contains all safety devices.
10. A copy of this permit will be hand carried to Security so that a patrol of the area can be made at least one hour after hot work has been completed for the day.

Date and Time of Site Inspection by Security _____

EQUIPMENT LIST

1. Light Meter: General Electric Type 214 Light Meter, Footcandle Range 10-50, 50-250, 200-1000 fc. General Electric, Nela Park, Cleveland, OH 44112 or
Photo-meter 1, Digital Footcandle/Foot Lambert meter, Range .01-99,000 fc: Quantum Instruments, Inc., Garden City, N.Y. 11530.
2. Airflow Meter: Alnor Velometer, Jr.; Hi/Low Range 0-200 and 0-800 fpm.: Distributed by MSA Co., Pittsburgh, PA 15205 or
Kurz Air Flow Meter, Model 441S-R, Serial No. VP3541. Kurz Instruments, Inc., 2411 Garden Road, Monterey, CA 93940.
3. Noise Meter: General Radio, Model GR 1565-B-Sound Level Meter and Type 1562-Sound Level Calibrator. General Radio Company, Concord, MA 01742.
4. Smoke Tubes with Bulbs: Dräger Smoke Tubes
5. pH Paper Acid-Base: pHydriion INSTA-CHEK 0-13 JUMBO. (See below.)
6. pH Paper-Chlorine: Strips; pHydriion Micro-Chlorine, Cat. No. CM 240; Range (light to dark) 10-50-100-200 ppm: Micro Essential Laboratory, Brooklyn, N.Y. 11210.
7. Temp. Dishwashing Strips: Thermolable Temperature Sensitive Tape; Range 160°F/71°C: Paper Thermometers Co., P.O. Box 129, Greenfield, NH 03047.
8. Electrical Outlet Tester: Daniel Woodhead Model #1760 Tension Tester. Daniel Woodhead Co., 3411 Woodhead Drive, Northbrook, IL 60062.
ETCON Receptacle/GFI Tester, Cat. No. CT 101. ETCON Corp., Burr Ridge, IL. 60521.
9. Microwave Tester: Micro-Detector, Econmetrics, P.O. Box 206, North Hollywood, CA 91603.
10. Smoke Detector Tester: Model No. 25 S, FM approved. Home Safeguard Ind., Security Products Division, PO Box 4073, Malibu, CA. 90265.
11. Alcohol Swabs: PDI Alcohol Prep Rad, 70% Isopropyl Alcohol: Professional Disposables, Inc., Orangeburg, NY 10962.
12. Camera: 35 mm, Flash, and Black and White Film.
13. Taylor Dial Thermometer: Taylor Bi-Therm; Range 0°F - 220°F: Pre-Calibrated and Post-Calibrated using 2 quarts of water boiling - set at 212°F and with 10 oz. of water plus 10 ice cubes - set at 32°F (5 min. at roaring boil and 5 min standing with ice cubes before reading and adjusting).
14. Miscellaneous: Tape Measure (12 Ft.), Plastic Bags, Scissors, Calculator, Ear Plugs, Safety Glasses-goggles/gloves, Marks-a-Lots, Hemostats.