



INTERNAL AUDIT DIVISION

OFFICE OF INTERNAL OVERSIGHT SERVICES

AUDIT REPORT

Occupational safety and health in UNMIL

1 June 2007

Assignment No. AP2000/626/15

United Nations  Nations Unies

INTEROFFICE MEMORANDUM

MEMORANDUM INTERIEUR

INTERNAL AUDIT DIVISION · DIVISION DE L'AUDIT INTERNE
OIOS · BSCI

TO: Mr. Alan Doss
A: Special Representative of the Secretary-General
UNMIL

DATE: 1 June 2007

REFERENCE: AUD-7-5:7 (07- 00287)

FROM: Dagfinn Knutsen, Acting Director
DE: Internal Audit Division, OIOS



SUBJECT: **Assignment No. AP2006/626/15: Occupational safety and health in UNMIL**

OBJET:

1. I am pleased to present the report on the above-mentioned audit, which was conducted from September to December 2006.

2. Based on your comments, we are pleased to inform you that we will close recommendations 2 to 9, 11 to 13, 16, 18, 20 and 21 in the OIOS recommendations database as indicated in Annex 1. In order for us to close the remaining recommendations, we request that you provide us with the additional information as discussed in the text of the report and also summarized in Annex 1.

3. Please note that OIOS will report on the progress made to implement its recommendations, particularly those designated as critical (i.e., recommendation 15) in its annual report to the General Assembly and semi-annual report to the Secretary-General.

4. IAD is assessing the overall quality of its audit process and kindly requests that you consult with your managers who dealt directly with the auditors and complete the attached client satisfaction survey form.

cc: Mr. Jordan Ryan, Deputy Special Representative of the Secretary-General, UNMIL
Mr. Stephen Lieberman, Director of Administration, UNMIL
Mr. Swatantra Goolsarran, Executive Secretary, UN Board of Auditors
Mr. Jonathan Childerley, Chief, Oversight Support Unit, Department of Management
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INTERNAL AUDIT DIVISION

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EXECUTIVE SUMMARY

Occupational safety and health in UNMIL

OIOS conducted an audit of occupational safety and health management systems and practices in the United Nations Mission in Liberia (UNMIL) during September to December 2006. The main objectives of the audit were to obtain reasonable assurance that management's internal control systems and practices were effective in protecting civilian personnel against work-related injury, sickness, and disease. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

This is the first audit of occupational safety and health conducted by OIOS in a peacekeeping mission. The focus of the audit was on safety programmes with less emphasis on health, as these issues are more difficult to confront. Audit work was conducted on safety and health systems and practices in the Division of Administration (DOA). However, the implementation of a strong occupational safety and health management system would positively affect all personnel in the Mission. The DOA is staffed with 1,182 personnel, many of whom work in high-risk occupations. A limited review was also conducted of UNMIL's fire prevention and protection programme which predominantly falls under the responsibility of the Integrated Safety and Security Section.

Occupational safety and health (OSH) were clearly important to DOA management and the Integrated Safety and Security Section. Specific programmes and activities have been developed and include aviation safety, driving safety, fire protection, transportation of dangerous goods, automotive workshop safety, medical services, staff wellness, as well as various safety and health related training. However, the standard of safety and health programmes varied widely and most programmes were not formalized.

The Department of Peacekeeping Operations (DPKO) has promulgated a comprehensive environmental safety and occupational health guideline for military personnel, which includes an OSH component. However, DPKO has not issued OSH guidance for civilian personnel. In addition, the DOA does not have an overall safety and health guideline, nor is there a mechanism to coordinate safety and health activities. Rather the DOA places a high reliance on individual Section and Unit managers to develop safety and health programmes. The lack of policy guidance from both DPKO and the DOA has resulted in unclear roles, responsibilities, and accountabilities for management and staff, leading to varying degrees of commitment in developing safety and health programmes. The development of an OSH management system, used by all Sections and Units within the DOA, would provide assurance that management demonstrates commitment to safety and health issues, and has the ability to show due diligence in the event of an incident.

The DPKO and UNMIL management should also work towards strengthening the Mission's fire prevention and protection programme. There is a lack of standards, guidance and frameworks which leaves management at risk of not adequately protecting UN personnel, property and equipment. For example,

the UNMIL Headquarters building, where approximately 1,000 personnel work, was occupied without rectifying significant fire and safety deficiencies identified by the UNMIL Fire Marshal. DPKO should work with the Department of Safety and Security to develop guidance that ensures significant fire and safety deficiencies are mitigated prior to occupying major buildings. There is also a need to develop a framework for the fire and safety programme that meets the requirements of an integrated mission environment.

OIOS acknowledges the efforts made to date by the management and staff of the Division of Administration and the Integrated Safety and Security Section, and encourages them to continue to progress towards developing a comprehensive occupational safety and health management system in the Mission.

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I. INTRODUCTION

1. OIOS conducted an audit of occupational safety and health management systems and practices in the United Nations Mission in Liberia (UNMIL) from September to December 2006.

2. Occupational safety and health in the workplace is a fundamental concern for management and staff. The United Nations places the highest premium on safety and security of its personnel¹. Peacekeeping operations deploy personnel to areas where risk of disease and accidents are comparatively high. Accidents are wasteful in human lives, finance, resources, and property, and are a serious handicap to the political and operational effectiveness of peacekeeping operations². In 2005-2006, there were 72 fatalities spread over five peacekeeping operations, 75 per cent of which occurred due to causes such as illness and accidents³. Effective workplace safety and health programmes can help to save the lives of personnel by reducing hazards and their consequences. Safety and health programmes also have positive effects on both morale and productivity.

3. Liberia has a fire protection code; however, it was not evident if there were established OSH national laws and regulations. Where there is an absence of host country laws and regulation, United Nations (UN) practice has been to comply with international standards, in particular, agreements that have been developed under the auspices of the UN.

4. The Department of Peacekeeping Operations (DPKO) does not have an overarching policy or guideline on occupational safety and health for peacekeeping operations. There are several international standards for OSH management systems, including the International Labour Organization, Occupational Safety and Health Administration (OSHA), and Occupational Health and Safety Assessment Series (OHSAS). The UNMIL Director of Administration and OIOS agreed to use the guidelines established by the International Labour Organization (ILO) as a benchmark for this audit. The ILO, a specialist agency of the United Nations, has established minimum norms and basic standards regulating conditions at work. The ILO describes OSH as the “protection of workers against work-related sickness, disease and injury”.

5. There are approximately 1,182 civilian personnel in the Division of Administration (DOA). Many of these personnel work in high-risk occupations, including aviation, construction, fire protection, fuel operations, facilities and equipment maintenance, telecommunications, transport, and warehousing. In addition, the DOA employs many national staff who are performing tasks new to them.

¹ United Nations Aviation Safety Manual, LSD, DPKO (2003), pg vi

² United Nations Aviation Safety Manual, LSD, DPKO (2003), pg. iv

³ Department of Peacekeeping Operations, General Assembly Fourth Committee, October 2006

6. Full and accurate reporting of occupational safety and health incidents, financial costs, and loss of productivity (absence from work) was not readily available from the DOA. Management provided the following information:

- 2 fatal occupational accidents of DOA staff for the period October 2003 to November 2006;
- 5 fires at UNMIL premises in Monrovia for the period August 2005 to November 2006;
- 11 major vehicle accidents costing \$108,371 in repairs and causing injuries for civilian/national staff from January 2006 to August 2006; and
- Approximately 64 incidents or accidents ranging from minor to major from October 2003 to November 2006.

7. Comments made by UNMIL are shown in *italics*.

II. AUDIT OBJECTIVES

8. The main objective of the audit was to obtain reasonable assurance that the occupational safety and health management systems and controls are effective in protecting civilian personnel against work-related injury, sickness and disease.

III. AUDIT SCOPE AND METHODOLOGY

9. This audit was conducted from September to December 2006 and represents a “snapshot” of the safety and health management systems and practices in place at that time. The focus of the audit was on occupational safety programmes in the Division of Administration, with a limited review of occupational health. OIOS conducted an audit of UNMIL Aviation safety in January and February of 2006, therefore no further audit work was conducted in this area. During the audit, risks were identified in the fire prevention and protection programmes, which resulted in a limited review of that programme.

10. OIOS and the Division of Administration agreed to use the ILO’s Guidelines for Occupational Safety and Health Management Systems (ILO-OSH 2001) as the evaluation criteria for this audit. The ILO-OSH 2001 provides minimum standards for an effective OSH management system. Specific safety and health guidance issued by DPKO and UNMIL, as well as practices used in other peacekeeping missions, also formed part of the evaluation criteria.

11. Preliminary information was collected through an OSH survey completed by DOA management. Formal and informal interviews were conducted with approximately 40 personnel at all levels of the organization. A review of documentation covered the period from July 2005 to June 2006. OIOS

also conducted physical inspections at major UNMIL premises including the Pan African Plaza Headquarters, Green Building, and various locations at Star Base.

IV. AUDIT FINDINGS AND RECOMMENDATIONS

A. Management framework

Occupational safety and health policy

12. The Environmental Safety and Occupational Health (ESOH) Guideline (2003) issued by OMS/DPKO provides military personnel with a framework for integrating ESOH into peacekeeping operations. The guideline serves as a tool to identify, assess, eliminate and reduce ESOH risks in all phases of a peacekeeping operation. There is no equivalent policy to provide overall guidance on occupational safety and health for civilian personnel in the Mission.

13. There is also no overarching occupational safety and health guideline issued by UNMIL. The DOA relies on the experience of Section or Unit managers and supervisors as a main means of preventing injury and sickness. In some areas, management has taken little responsibility for the protection of staff safety and health, as evidenced by the lack of safety and health controls and programmes. Most managers identified a need for greater direction and coordination to assist them in establishing safety and health programmes.

14. An occupational safety and health policy developed by DPKO and a guideline developed by UNMIL would clarify roles and responsibilities, and set minimum standards. The ILO-OSH 2001 Guidelines (3.1.1) recommends, “The employer, in consultation with workers and their representatives, should set out in writing an OSH policy”. The Safety Handbook developed by the United Nations Logistics Base in Brindisi (UNLB) provides an example of a pragmatic safety guideline for management and staff.

Occupational safety and health guidance

15. The DPKO has issued specific guidance (see Table 1) which provides safety and health standards and procedures for operations performed by the DOA. In several cases DOA management was either not aware of, or was not implementing, the guidance issued.

Table 1: Specific DPKO occupational safety and health guidance

i. Aviation Safety Manual, LSD (2003)
ii. Surface Transport Manual, Section 28, Road Safety Policy, (2004 Provisional), LSD
iii. Automotive Workshop Safety Guidelines, LSD (no date)
iv. Transport of Dangerous Goods for UN Peacekeeping Operations Manual, LCS (2001)
v. Engineering Services Safety Manual, LCS (2003)
vi. Engineering Electrical Safety Instructions, LSD

vii. Fuel Operations Manual SOP 1 Command and Control, DPKO (2003)
viii. Fuel Operations Manual – Establishment of Field Fuel Installations Fuel Operations – Safety and Security, DPKO (2003 Provisional)
ix. Engineering Support Manual, Chapter VII, Fire Protection Services, LCS (1997)
x. Guidelines for Food Safety Management in Peacekeeping Missions, LSD (2003)
xi. Guidelines for Pest Control in Peacekeeping Operations, LSD (2003)

Recommendations 1 to 3

The UNMIL Administration should:

- (1) Request the Department of Peacekeeping Operations to work with the Department of Safety and Security to develop guidelines for the occupational safety and health for civilian personnel in the Mission;**
- (2) Develop safety and health guidelines that clearly establish roles, responsibilities, and minimum standards; and**
- (3) Ensure that Section and Unit management are aware of applicable safety and health guidance issued by the Department of Peacekeeping Operations.**

16. *The UNMIL Administration accepted recommendation 1 and stated that through a fax dated 16 April 2007, the Department of Peacekeeping Operation has been requested to implement the recommendation. Recommendation 1 remains open until the receipt of the occupational safety and health guideline for civilian personnel developed by DPKO.*

17. *The UNMIL Administration accepted recommendation 2 and stated that the Mission has prepared a Safety Handbook that establishes roles and responsibilities and minimum standards. Based on OIOS' review of documentation provided by the Mission, recommendation 2 has been closed.*

18. *The UNMIL Administration accepted recommendation 3 and stated that while waiting for the applicable safety and health guidelines from DPKO, the Section and Unit management will be guided by the UNMIL Safety Handbook, receive training on safety and health issues from the Integrated Training Cell and be guided by information posted on the UNMIL Intranet repository on Occupational Safety and Health. Based on OIOS' review of documentation provided by the Mission, recommendation 3 has been closed.*

Structure and programmes

19. The DOA is a decentralized structure with each Section or Unit largely responsible for their own operations. For this reason, safety and health activities are managed individually. There are several positive safety and health programmes established by the DOA including aviation safety, road/driving safety, transportation of dangerous goods (TDG), automotive workshop safety, medical services, staff wellness, as well as various OSH-related training.

20. Notable efforts are being made in individual Sections and Units to implement OSH programmes. However, OSH activities are dispersed and fragmented which is reducing the effectiveness of safety and health in the DOA. Areas that would benefit the most from a more coordinated approach include (i) OSH awareness; (ii) training; (iii) joint assessment of hazards prior to changes in operations; (iv) fire prevention and protection services; (v) medical services; (vi) staff participation; and (vii) corrective action to issues, near misses, incidents and accidents. The DPKO's ESOH guideline recommends a safety plan as a coordinating mechanism as follows, "The safety plan should provide an umbrella where standards are disseminated, disparities rectified and resources coordinated."

21. The DOA has not established an 'umbrella' that coordinates and directs OSH activities. The DPKO guidance recommends establishing various committees, including a traffic safety committee (Surface Transport Manual), a health and safety committee (Guidelines for Food Safety Management), and a fire prevention committee (Engineering Support Manual). The UNLB Safety Handbook requires "Management (to): Facilitate and supervise the activities of the H&S Committee". The ILO-OSH 2001 recommends, "The employer should ensure, as appropriate, the establishment and efficient functioning of a safety and health committee and the recognition of workers' safety and health representatives, in accordance with national laws and practice." UNMIL Management should consider establishing an OSH committee with appointed representatives.

22. There was no evidence of safety and health objectives in DOA Section and Unit work plans. OSH objectives should be established in high-risk areas such as construction, electrical work, telecommunications, fuel operations, maintenance, warehousing, and transportation.

Recommendations 4 and 5

The UNMIL Administration should establish:

(4) A coordinating mechanism, such as a safety and health committee with representatives appointed from appropriate Sections and Units to ensure that activities are properly managed and directed; and

(5) Appropriate objectives (i.e. training, hazard identification, personal protection equipment etc.) in Section/Unit work plans where safety and health hazards are a high-risk.

23. *The UNMIL Administration accepted recommendations 4 and 5 and has taken action to establish an UNMIL Health and Safety Council; and Section Chiefs were requested, in a 14 March 2007 memo, to establish appropriate safety and health objectives in their April 2007-March 2008 work plans. Based on OIOS' review of documentation provided by the Mission, recommendations 4 and 5 have been closed.*

Promotion and awareness

24. The DOA management uses multiple approaches to promote OSH including information circulars (IC's), medical broadcasts, road/driving safety broadcasts and campaigns, Section or Unit meetings, and signage. The Transport Section provided an example of utilizing multiple mediums in promoting road safety awareness, which included on-going training, periodic road safety campaigns, and strategically placed signage (see Figure 1 below). Safety posters were also observed at the Supply Section's warehouses. Awareness of OSH could be improved as a whole, through a mission-wide promotional effort. For example, UNLB conducted a promotional campaign on World Day for Safety and Health at Work on 28 April 2005 (see Figure 2 below).

25. There was limited information on occupational safety and health available on the UNMIL intranet. Other peacekeeping missions have posted materials such as fire evacuation plans, basic first aid, manual material handling, work related injuries, and safety manuals.



Figure 1 UNMIL Road Safety Campaign 2006



Figure 2 ILO Safety & Health Day

Recommendations 6 and 7

The UNMIL Administration should:

- (6) Provide all personnel with access to safety and health information, including key policies, procedures, and training materials, through the UNMIL intranet; and**
- (7) Promote occupational safety and health through periodic campaigns and consider placing 'safe work' posters in high-risk areas and sponsoring promotional events.**

26. *The UNMIL Administration accepted recommendation 6 and 7 and stated that an Occupational Health and Safety folder has been established on the UNMIL intranet for communicating safety and health information. Programmes have been implemented to raise awareness of occupational safety and health in UNMIL, and that 'safe work' posters have been placed in high-risk areas. Based on OIOS' review of documentation provided by the Mission, recommendations 6 and 7 have been closed.*

Orientation and training

27. The Division has conducted OSH training in a number of areas including TDG, driving assessments, operation of heavy truck/fire truck, operation of armored vehicles, ramp off-loading, emergency response, operating forklifts, automotive workshop safety, first aid, working at heights, basic fire fighter training, conflict resolution in the workplace, and team work and development.

28. The Transport Section should be commended for the development and continuous improvement of road safety programmes, workshop safety guidelines, and various internal and external safety training and awareness activities. Personnel in the Transport Section have developed several high-quality training programmes.

29. Management places a high reliance on supervisors to maintain a safe and healthy work environment. However, there was no evidence of safety training provided to managers and supervisors. Interviews with supervisors revealed varying levels of understanding of hazard identification and general safety controls. OSH training would increase general awareness and understanding of hazards, risks, and prevention controls in the workplace.

30. The Engineering Services Safety Manual and the Electrical Safety Instructions issued by the DPKO set out safety and health standards for the Engineering Section. Engineering Section managers fully supported safety and health training, but indicated that little had been done to develop a programme, citing the lack of resources as a major factor. The DPKO Fuel Operations Manual and provisional SOPs place a high priority on safety; however, there was little evidence of a formal safety programme in the Fuel Unit. The Engineering Section and the Fuel Unit have 350 and 54 personnel respectively. Safety and health hazards are high in these two operational areas and therefore it is important for management to establish adequate programmes.

Recommendations 8 and 9

The UNMIL Administration should:

(8) Provide all personnel with basic information related to occupational safety and health. It is further recommended that mandatory safety and health training be provided to all management and supervisory staff; and

(9) Ensure that the Engineering Section and the Fuel Unit develop a robust safety and health programme that includes regular training.

31. *The UNMIL Administration accepted recommendations 8 and 9 and stated that in April 2007 a mandatory safety and health workshop was conducted for all chiefs of sections/supervisors. Significant steps have been taken towards developing safety and health programmes in both the Engineering Section and Fuel Unit. Based on OIOS' review of documentation provided by the Mission, recommendations 8 and 9 have been closed.*

B. Key OSH operational processes

Hazard checklists and inspections

32. The responsibility for identifying and controlling workplace hazards rests with individual Section or Unit management. The majority of managers interviewed stated that there was no systematic process to identify, assess and control hazards. Most indicated they informally identified hazards. While informal "walk around and observe" practices by supervisors are useful in identifying hazards, a checklist provides assurance that items are not missed. A checklist also serves as a training tool and a reminder for those new to the inspection process or the area being inspected.

33. The Transport Section has developed an automotive workshop checklist and indicated that the checklist will be utilized for regular safety and health inspections. However, there are no requirements for Sections or Units to conduct inspections. As a minimum standard, safety and health inspections should be conducted to provide additional assurance that hazards are identified and corrected before they result in injury or illness.

Recommendation 10

(10) The UNMIL Administration should develop a process to identify, assess, and control safety and health hazards, by using site-specific checklists and conducting regular inspections.

34. *The UNMIL Administration accepted recommendation 10 and stated that checklists are being prepared for regular inspections to identify, assess and manage safety and health risks. Recommendation 10 remains open pending receipt of checklists from the various sections.*

Building alterations

35. Building alterations have occurred that in some instances do not comply with local and international fire codes, such as obstruction of fire exits. For example, OIOS observed that a fire exit was blocked in the Personnel offices on the seventh floor of the Pan African Plaza. There is no process, such as the use of work permits, to review building alterations prior to construction for fire and

safety implications. One function of the Integrated Safety and Security, Fire and Safety Unit, is to “Co-ordinate safety engineering surveys and review construction, alterations and change of occupancy plans to ensure they meet safety and fire requirements. Consult with Engineering Section on the design and testing of fire protection systems and building design features that impact on fire safety.”

Recommendation 11

(11) The UNMIL Administration should develop a process that ensures the Fire and Safety Unit reviews proposed construction, alterations and change of occupancy plans and inspects the building and/or alterations after construction.

36. *The UNMIL Administration accepted recommendation 11 and stated that a process for the Fire and Safety Unit to review proposed building changes prior to construction has been implemented. Based on OIOS’ review of documentation provided by the Mission, recommendation 11 has been closed.*

Fuel installation point, Pan African Plaza, UNMIL Headquarters

37. A fuel installation point, which was constructed adjacent to the Pan African Plaza, did not adequately consider safety and security aspects prior to construction. The DPKO Provisional SOP on the Establishment of Field Fuel Installations – Safety and Security Measures requires: (i) a minimum safety distance between the installation and the adjacent living quarters of 90 meters; (ii) a fire fighting assessment; (iii) a fire plan; and (iv) completion of a site board review prior to the commencement of any construction. OIOS found that the actual distance between the fuel installation point and nearby living quarters of a troop contingent was approximately 30 meters. In addition, a site board review was not conducted, nor was a fire fighting assessment or fire plan developed prior to construction. The purpose of a site board is to consider “all safety and security aspects”; and should consist of (as a minimum): a fuel officer, an aviation officer, a field engineer and a fire officer.



Figure 3 Fuel installation point, Pan African Plaza; troop contingent quarters in the background.

Recommendations 12 and 13

The UNMIL Administration should ensure that:

(12) A site board review is conducted for each fuel installation prior to the commencement of any construction work; and

(13) Fire fighting plans are developed for all UNMIL fuel installations.

38. *The UNMIL Administration accepted recommendations 12 and 13 and stated that a process has been implemented to use site boards to review existing and newly constructed fuel installation points. Fire fighting plans for all major fuel installations as well as installations located in the Sectors have been developed and implemented. Based on OIOS' review of documentation provided by the Mission, recommendations 12 and 13 have been closed.*

Fire and safety assessments of Pan African Plaza, UNMIL Headquarters

39. The UNMIL Headquarters was re-located to the Pan African Plaza building in November 2005, bringing together the Offices of the SRSG, Deputy SRSGs, the Force Commander, UNPOL Commissioner, and the DOA. Approximately 1,000 personnel work in the Pan African Plaza building.

40. There were two significant fire and safety risks found during the audit regarding Pan African Plaza. First, the building was occupied without rectifying fire and safety deficiencies reported by the UNMIL Fire Marshall in a Fire and Safety Assessment conducted in February 2005 (9 months prior to occupancy). Second, significant fire and safety deficiencies noted in a subsequent fire survey conducted in May 2006, remained uncorrected at the time of the audit. The fire survey "found a myriad of problems which would cause fires, contribute to their rapid spread, or trap and incapacitate building habitants. Many of the problems can be solved by better engineering, constant attention, improved supervision, and minimum cash input". There have been two fires at the Pan African Plaza. On 15 January 2006, an electrical fire occurred on the 8th floor; and on 06 October 2006 a fire occurred in a generator.

41. Table 2 provides a summary of the fire survey recommendations and their status.

Table 2: Fire survey recommendations for Pan African Plaza

February 2005 Fire & Safety Assessment Conducted by UNMIL Fire Marshall	Status (I)	May 2006 Fire Engineering Survey Conducted by UNMIL staff member	Status (I)
i. An effective water supply system	N	i. Building fire notification system	N
ii. A central fire alarm / detection system	N	ii. Effective water extinguishing system	N

iii. A central loudspeaker	N	iii. Self closing doors on stairwells	N
iv. Photo luminescent safety egress system	Y	iv. Self closing doors basement	N
v. Fire protection doors on each entry/exit to/from the building corridors	N	v. Exit doors swinging outwards	N
vi. External fire escape stairs at two ends	N	vi. Removal of FMU workshop	Y
vii. Fire protection doors – mechanical rooms	N	vii. Removal of flammable liquid storage throughout the building	N
viii. Clearly marked escape route on each floor/corridor	Y	viii. Immediate and ongoing trash and debris removal from all areas	N
ix. Fire extinguishers mounted and marked visibly	Y	ix. All substandard wiring tagged and repaired	N
x. 24/7 fire fighting presence at PAP	Y	x. Running record of building electrical installations and repairs	N
		xi. Fire Marshall & Security Units need regular and coordinated training	N
		xii. Laminated step-by-step instructions by each phone in Fire and Security Units	N
		xiii. All phones in PAP laminated placard	N
Note 1: N – recommendation not implemented at the time of the audit Y – recommendation has been implemented			

42. UNMIL management has taken appropriate action to initiate fire assessments, but has not rectified significant fire and safety deficiencies in a timely manner. Six of the ten recommendations made in the February 2005 Fire and Safety assessment, and twelve of the thirteen recommendations made in the May 2006 Fire Engineering Survey remained outstanding as at 30 November 2006. Of concern is the lack of escape exits noted in both reports. The May 2006 report states that, “Both stairwells are currently virtually unprotected and will act as chimneys for smoke and fire rather than as safe exits for occupants. The cost of retrofitting these stairwells to minimum standards is not great”.



Figure 4 Lack of fire egress



Figure 5 Pan African Plaza, UNMIL HQ

Recommendations 14 and 15

The UNMIL Administration should:

- (14) Request the Department of Peacekeeping Operations to work with the Department of Safety and Security to develop guidelines for conducting fire and safety risk assessments prior to occupying major buildings; and

(15) Give priority to rectifying the remaining significant fire and safety deficiencies identified in the May 2006 fire engineering survey and the February 2005 fire and safety assessment of the Pan African Plaza building.

43. *The UNMIL Administration accepted recommendation 14 and stated that on 13 April 2007 a request was sent to the Department of Peacekeeping Operations to implement the recommendation. UNMIL has also taken interim measures by setting up a Site Board to review future occupancies of major buildings. Recommendation 14 remains open pending receipt of guidelines for conducting fire and safety risk assessments prior to occupying major buildings prepared by DPKO.*

44. *The UNMIL Administration accepted recommendation 15 and stated that actions to resolve all deficiencies noted in the fire assessment/survey have been taken, and that the majority of deficiencies are now resolved. The Fire Safety Unit, the Engineering Section and the Facilities Management Unit have been working together to ensure that any remaining fire safety deficiencies are resolved. Recommendation 15 remains open pending the completion of the remaining fire safety deficiencies by the Mission.*

Hazardous materials

45. Procedures for identifying, handling, controlling and storing hazardous materials used in the workplace were not adequately developed. Sections and Units were not able to readily identify hazardous materials. Material Safety Data Sheets (MSDS) were not available. The Engineering Services Safety manual states that, "Supervisors are responsible for ensuring workers exposed or potentially exposed to hazardous chemicals/materials have access to appropriate Material Safety Data Sheets."

46. Hazardous materials (HAZMAT) placards were not posted where dangerous goods are located. It was observed that HAZMAT placards were not posted at fuel installation points, nor were flammable liquids placards posted at warehouses. Placards are designed to alert personnel and emergency services to the presence of stored dangerous goods and to display information about the type of dangerous goods being stored.

Recommendations 16 and 17

The UNMIL Administration should develop a mechanism that ensures:

(16) Hazardous chemicals are properly identified, labeled, stored and handled, and placards are posted at sites that contain hazardous materials; and

(17) Material Safety Data Sheets are readily available to workers and provided to the Fire and Safety Unit.

47. *The UNMIL Administration accepted recommendation 16 and stated that processes to identify and manage hazardous materials have been implemented. Based on OIOS' review of documentation provided by the Mission, recommendation 16 has been closed.*

48. *The UNMIL Administration accepted recommendation 17 and stated that the Fuel Unit has provided Material Safety Data Sheets to staff and is developing processes to ensure full compliance. UNMIL has set a target date of 30 June 2007 for all Sections and Units to have identified relevant Material Safety Data Sheets and provide them to the Fire and Safety Unit. Recommendation 17 remains open pending receipt of Material Safety Data Sheets for all Sections.*

Personal protection equipment

49. Each Section and Unit in the Division is responsible for providing personal protective equipment (PPE) to staff. The Engineering Services Safety Manual specifies PPE to be used for specific tasks and provides technical specifications.

50. Management and staff are making efforts to ensure PPE is being appropriately worn. The use of PPE was observed at Supply Section's warehouses where all staff were wearing safety boots, hard hats, gloves and lifting braces. However, staffs frequently do not comply with instructions to wear PPE. Staff confirmed that they had been shown how to use PPE. When asked why they were not wearing standard PPE, such as protective gloves, they responded that they had not been provided with appropriate PPE. According to procurement records, management has ordered a wide range of PPE. However, during site visits, inventories of PPE were observed as being inadequate at several locations.

Recommendation 18

(18) The UNMIL Administration should ensure that staffs are provided with the required personal protection equipment (PPE) and that staffs receive regular training on the use and importance of wearing PPE.

51. *The UNMIL Administration accepted recommendation 18 and stated that processes have been implemented to ensure that appropriate PPE is available and used by staff. Based on OIOS' review of documentation provided by the Mission, recommendation 18 has been closed.*

Fire emergency response and procurement of fire safety equipment

52. Fire evacuation plans are developed for the Pan African Plaza building but not for other UNMIL premises. Completion of the fire plans is an objective in the Fire and Safety Units' 2006-07 work plan. Fire signage was evident throughout the Pan African Plaza, Green Building and Star Base buildings that would enable rapid evacuation, should the need arise. Fire drills were conducted

for the Pan African Plaza on 21 and 22 September 2006. No fire drills have been conducted at Star Base buildings and the Green Building.

53. There is no process in place for the Fire and Safety Unit to review requisitions for fire safety equipment prior to procurement. This has led to purchases of sub-standard equipment. For example, the fire detectors installed at the Pan African Plaza do not function effectively in tropical climates.

Recommendations 19 and 20

The UNMIL Administration should:

(19) Ensure that the Chief Security Advisor gives priority to developing fire evacuation plans for all major UNMIL premises and conducts regular fire drills at all locations; and

(20) Implement a process where the Fire and Safety Unit reviews requisitions for fire safety equipment prior to procurement.

54. *The UNMIL Administration accepted recommendation 19 and stated that fire evacuation plans and warden systems for all major UNMIL premises will be in place by 30 April 2007. Recommendation 19 remains open pending receipt of the fire evacuation plans for all major UNMIL premises.*

55. *The UNMIL Administration accepted recommendation 20 and stated that as of January 2007 a process has been implemented whereby the Fire and Safety Unit provides technical assistance to the requisitioner, prior to procuring fire safety equipment. Based on OIOS' review of documentation provided by the Mission, recommendation 20 has been closed.*

C. Reporting and monitoring

56. There was inconsistent reporting of workplace near misses, incidents or accidents, which ranged from 'no reporting' to 'filing an incident report with the Special Investigations Unit'. Sound safety management is based on full and accurate reporting of all occurrences and hazards that lead, or might lead, to incidents and accidents. The UNLB Safety Handbook provides an example of clear reporting responsibilities and process, and requires that "Any minor or major injuries incurred to the staff should be reported on the Accident Record Book."

57. There was little evidence to show that timely corrective action was taken after an incident/accident that would avoid repetition of work-related injuries. Several managers stated that an informal approach to addressing incidents had resulted in a lack of clear responsibility for implementing corrective action. As previously discussed, a safety and health committee would provide a mechanism to monitor and control follow-up action of hazardous conditions in a timely manner.

Recommendation 21

(21) The UNMIL Administration should ensure that all occupational safety incidents and accidents are reported to the Special Investigations Unit, and that the necessary corrective action is taken in a timely manner.

58. *The UNMIL Administration accepted recommendation 21 and stated that the Special Investigations Unit is charged with the responsibility to carry out investigations of all incidents involving UNMIL personnel. The Investigation Reports are thereafter transmitted to the Director of Administration who takes the relevant corrective or remedial action immediately after reviewing the reports.* Based on OIOS' review of documentation provided by the Mission, recommendation 21 has been closed.

D. Fire prevention and protection programme

59. During the audit, management discussed their concerns about the effectiveness of the Mission's fire prevention and protection programme. A comprehensive review of this programme was beyond the scope of an occupational safety and health audit, however several findings and recommendations are noted below.

Policy and guidance

60. The DPKO provides guidance for fire protection services in Section 7.0 of the Draft Engineering Support Manual 1997, Chapter VII Fire Protection Services. The guidance provides an overall mandate, but it does not provide an adequate framework needed in today's integrated mission environment. A framework for fire prevention and protection would clarify roles, responsibilities and accountabilities between the DOA and the Integrated Safety and Security Section.

Structure and resources

61. The DOA, Aviation Section initially coordinated the Mission's fire prevention and protection programme. As of 1 February 2006, the responsibilities were transferred to the Integrated Safety and Security Section, Fire and Safety Unit. The overall function of the Fire and Safety Unit is to "plan, organize, direct and control the protective measures and activities against loss of life and property damage by fire to UN facilities in Liberia". Personnel in the Unit as well as a Contractor, carry out these functions. The Aviation Fire Fighting Unit and the Transport Section provide additional fire protection services.

62. Several managers stated that the Mission's fire protection and prevention programme would be more effective if the functions of the four service providers (Fire and Safety Unit, Contractor, Transport Section, and Aviation Fire Fighting Unit) were better coordinated. Management should review the potential for increasing the effectiveness of fire services through either centralizing the

function, or instituting a fire prevention committee as a coordinating mechanism. The Engineering Support Manual, Chapter VII, Fire Protection Services, requires that, "Every mission shall create a Fire Prevention Committee whose objective is to achieve the highest possible standard of fire prevention and fire fighting capability."

63. The organizational position of the Fire and Safety Unit must be such that it ensures management takes the necessary remedial action recommended by the Unit. This control is also noted in the Aviation Safety Manual, "To be effective, a safety organization must be independent of executive branches, be of equal status to them and be directly under, or have right of access to, the executive decision levels." The Fire and Safety Unit may not be adequately positioned to provide this assurance, as evidenced by the lack of action taken on recommendations made by the Fire Marshal, as well as lack of coordination between DOA Sections/Units and the Fire and Safety Unit on fire related issues.

64. The capacity of the Fire and Safety Unit to accomplish its mandate as outlined in its 'functions' document, appears to be largely unattainable at its current level of staffing resources. The functions include providing a range of fire prevention and protection services to all UN facilities in Liberia, including UN agencies. The OIC, Fire and Safety Unit is supported by 2 national staff and 5 drivers (fire trucks), but no administrative staff. The Contractor provides basic fire protection services.

Recommendations 22 and 23

The UNMIL Administration should:

(22) Request the Department of Peacekeeping Operations to work with the Department of Safety and Security to develop guidelines for fire protection services in the Mission; and

(23) Conduct a review of the structure, resources, and reporting relationships of the fire prevention and protection programme to ensure that it is providing effective fire services to the Mission and UN agencies.

65. *The UNMIL Administration accepted recommendation 22 and stated that a request was sent on 13 April 2007 to the Department of Peacekeeping Operations to implement the recommendation. Recommendation 22 remains open pending receipt of the guidelines for fire protection services in the Mission prepared by DPKO.*

66. *The UNMIL Administration accepted recommendation 23 and stated that a review of the fire protection programme would be completed by the end of May 2007, and that appropriate actions would be implemented by 30 June 2007 to ensure that there are effective fire services provided to the Mission and the UN Agencies. Recommendation 23 remains open pending receipt of documentation*

of the review on fire protection programme involving the Mission and the UN Agencies.

V. ACKNOWLEDGEMENT

67. We wish to express our appreciation to the Management and staff of UNMIL for the assistance and cooperation extended to the auditors during this assignment.

STATUS OF AUDIT RECOMMENDATIONS

Recom. no.	C/O ¹	Actions needed to close recommendation	Implementation date ²
1	O	Submission to OIOS of occupational safety and health guideline for civilian personnel prepared by DPKO in consultation with the Department of Safety and Security	Not provided
2	C	Action completed	Implemented
3	C	Action completed	Implemented
4	C	Action completed	Implemented
5	C	Action completed	Implemented
6	C	Action completed	Implemented
7	C	Action completed	Implemented
8	C	Action completed	Implemented
9	C	Action completed	Implemented
10	O	Submission to OIOS of copies of site-specific checklist to identify, assess and control safety and health hazards by the various Sections	31 May 2007
11	C	Action completed	Implemented
12	C	Action completed	Implemented
13	C	Action completed	Implemented
14	O	Submission to OIOS of the fire and safety guidelines for occupying major buildings.	Not provided
15	O	Completion of the remaining fire safety deficiencies	31 May 2007
16	C	Action completed	Implemented
17	O	Submission to OIOS of copies of Material Safety Data Sheets prepared by the various Sections	30 June 2007
18	C	Action completed	Implemented
19	O	Submission to OIOS of the fire evacuation plans for all major UNMIL premises	30 April 2007
20	C	Action completed	Implemented
21	C	Action completed	Implemented
22	O	Submission to OIOS of guidelines on fire protection services in the Mission prepared by DPKO in consultation with the Department of Safety and Security	Not provided
23	O	Submission of supporting documentation on the review done pertaining to fire protection programme involving the Mission and UN Agencies and the appropriate actions implemented	30 June 2007

¹ C = closed, O = open

² Date provided by UNMIL in response to recommendations

ABBREVIATIONS

CITS	Communications and Information and Technology Services
CPR	Cardiopulmonary resuscitation
DG	Dangerous goods
DOA	Division of Administration
DPKO	Department of Peacekeeping Operations
DSS	Department of Safety and Security
ESOH	Environmental Safety and Occupational Health
ILO	International Labour Organization
ILO-OSH 2001	ILO occupational safety and health management guidelines 2001
LCS	Logistics Communication Services
LSD	Logistics Support Division
MSDS	Material safety data sheets
OIOS	Office of Internal Oversight Services
OMS	Office of Mission Support
OSH	Occupational safety and health
PPE	Personal protection equipment
SOP	Standard operating procedure
TDG	Transportation of dangerous goods
UNLB	United Nations Logistics Base
UNMIL	United Nations Mission in Liberia

UNITED NATIONS



OIOS Client Satisfaction Survey

Audit of: Occupational safety and health in UNMIL

(AP2006/626/15)

	1	2	3	4	5
By checking the appropriate box, please rate:	Very Poor	Poor	Satisfactory	Good	Excellent
1. The extent to which the audit addressed your concerns as a manager.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The audit staff's understanding of your operations and objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Professionalism of the audit staff (demeanour, communication and responsiveness).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The quality of the Audit Report in terms of:					
• Accuracy and validity of findings and conclusions;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Clarity and conciseness;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Balance and objectivity;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Timeliness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The extent to which the audit recommendations were appropriate and helpful.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The extent to which the auditors considered your comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your overall satisfaction with the conduct of the audit and its results.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please add any further comments you may have on the audit process to let us know what we are doing well and what can be improved.

Name: _____ Title: _____ Date: _____

Thank you for taking the time to fill out this survey. Please send the completed survey as soon as possible to:
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 By E-mail: iad1support@un.org