



INTERNAL AUDIT DIVISION

REPORT 2018/127

Audit of waste management in the United Nations Interim Security Force for Abyei

**Despite the challenging environment and
several initiatives launched, significant
improvement was needed to enhance the
Mission's management of waste**

**12 December 2018
Assignment No. AP2018/635/02**

Audit of waste management in the United Nations Interim Security Force for Abyei

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of waste management in the United Nations Interim Security Force for Abyei (UNISFA). The objective of the audit was to assess whether UNISFA was managing its waste in a safe and environmentally friendly manner in accordance with established policies and procedures. The audit covered the period from 1 July 2016 to 30 June 2018 and included: oversight and guidance and waste management activities.

UNISFA initiated several measures to meet its waste management requirements in a challenging environment. However, significant improvement was still needed to properly collect, handle and dispose of wastewater, as well as solid, medical and oil waste.

OIOS made three recommendations. To address issues identified in the audit, UNISFA needed to:

- Review and update its guidance directives for managing waste that reflect the specific needs of the Mission and establish a mechanism to regularly monitor and report on its waste management activities;
- Develop and implement a comprehensive waste management plan outlining the Mission's waste management objectives, actions and targets for each waste category, and including: (a) a mechanism to monitor the performance of the camp management services contractor on wastewater treatment and garbage collection; and (b) provision for necessary facilities and equipment including a waste management yard, wastewater treatment equipment and testing laboratory and a suitable medical waste incinerator; and
- Implement monitoring mechanisms to ensure the fuel contractor collects petroleum, oil and lubricant waste from all designated collection points in line with the fuel supply services contract.

UNISFA accepted the recommendations and has initiated action to implement them.

CONTENTS

	<i>Page</i>
I. BACKGROUND	1
II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY	1
III. AUDIT RESULTS	2-5
A. Guidance and oversight	2-3
B. Waste management activities	3-5
IV. ACKNOWLEDGEMENT	5
ANNEX I Status of audit recommendations	
APPENDIX I Management response	

Audit of waste management in the United Nations Interim Security Force for Abyei

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of waste management in the United Nations Interim Security Force for Abyei (UNISFA).
2. Waste management in UNISFA was governed by the Department of Peacekeeping Operations/Department of Field Support (DPKO/DFS) Environmental and Waste Management Policies for field missions. These policies were supplemented by UNISFA's standard operating procedures (SOPs) on waste management and property disposal.
3. The Environmental Officer at the P-4 level was responsible for coordinating waste and environmental activities of the Mission. The Facilities Management Unit was responsible for the collection and disposal of garbage while the Engineering Section was responsible for wastewater management. There was no stand-alone operational budget for waste management activities as relevant budget resources were provided to various technical units undertaking respective waste management activities. UNISFA has 20 camp sites, consisting of 15 permanent camps and 5 temporary camps that are only occupied during the dry season. As at 15 August 2018, UNISFA had 250 civilian and 4,536 military personnel.
4. Comments provided by UNISFA are incorporated in italics.

II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

5. The objective of the audit was to assess whether UNISFA was managing its waste in a safe and environmentally friendly manner in accordance with established policies and procedures.
6. This audit was included in the 2018 risk-based work plan of OIOS due to the health, environmental and reputational risks related to waste management in UNISFA.
7. OIOS conducted this audit in August and September 2018. The audit covered the period from 1 July 2016 to 30 June 2018. Based on an activity-level risk assessment, the audit covered higher and medium risks areas in waste management, which included oversight and guidance and waste management activities.
8. The audit methodology included: (a) interview of key personnel; (b) review of relevant documentation; (c) analytical review of data; and (d) visits to the Abyei, Doukra and Highway camps.
9. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

III. AUDIT RESULTS

A. Guidance and oversight

Need to update the Mission's guidelines on waste management and establish a mechanism to monitor their implementation

10. DPKO/DFS environmental and waste management policies for United Nations field missions require UNISFA to establish and monitor the implementation of Mission-specific waste management procedures to guide the effective management of the Mission's waste. The Mission is required to have a waste management plan that outlines waste management practices.

11. The Mission promulgated SOPs on waste management in 2016; however, OIOS noted that the procedures governing the handling and disposal of solid and hazardous waste were not practical, as they did not fully consider the Mission's operating environment. This was because the SOPs were developed using procedures adopted by some of the larger peacekeeping missions. For example, the SOPs referred to: (a) conditions for operating a sanitary landfill for garbage disposal sites operated by UNISFA, but the Mission did not have the sanitary landfill; and (b) procedures for disposing plastics, which included crushing and reusing them, although the Mission did not have the resources to build such facilities. For managing hazardous waste, the SOPs only prescribed storage for the different categories of waste and not any guidance for disposal of the resultant stock pile. As a result, UNISFA had a growing stock of hazardous waste especially used batteries. The Mission had also not regularly reviewed and up-dated its SOPs. For instance, the procedures for managing solid and liquid waste were due for review in October 2017, but this was not done.

12. The Mission had not developed a waste management plan outlining the Mission's waste management objectives, action items and targets for each type of waste. This issue will be addressed by the implementation of recommendation 2. Also, at the time of the audit, the Mission had not assigned waste management focal points to camps, although this was done in November 2018. The Mission conducted a workshop for environmental focal points in early December 2018 in order to train them on their roles and responsibilities.

13. The above was due to capacity constraints as it was only in August 2018 that the Mission recruited an environmental officer. The lack of dedicated expertise in the Mission together with the challenging environment meant that the Mission had not given sufficient attention to environmental issues. This resulted in poor conditions in camps as described in the following section, and in exposing Mission personnel and local communities and the surrounding areas to health, safety and environmental risks.

(1) UNISFA should review and update its guidance directives for managing waste that reflect the specific needs of the Mission and establish a mechanism to regularly monitor and report on its waste management activities.

UNISFA accepted the recommendation and stated that it conducted a workshop for the environmental focal points early December 2018. An ongoing collection of monthly data has already been established. A waste management plan will be established before 30 June 2019. Recommendation 1 remains open pending receipt of updated SOPs, and evidence that a waste management monitoring mechanism has been implemented.

B. Waste management activities

Waste handling, storage and disposal were not done in an environmentally friendly manner

14. The DPKO/DFS Environmental and Waste Management Policies for United Nations field missions require that solid waste be segregated at source based on their characteristics such as hazardous and non-hazardous, biodegradable and non-biodegradable and recyclable and non-recyclable and disposed of appropriately. Wastewater treatment facilities should be properly operated and maintained by trained personnel and missions should establish minimum waste quality standards and conduct regular tests to monitor the quality of treated water, and not to discharge untreated wastewater into the environment. These policies require hazardous and medical waste to be handled in an environmental manner.

15. OIOS visits to three camp sites showed the need to improve the handling, storage and disposal of solid waste, wastewater, medical and other hazardous waste.

(a) Disposal of solid waste

16. Solid waste was collected and disposed of by the Facilities Management Unit in the Abyei camp and by military personnel in contingent camps. In the three camps inspected, solid waste was disposed of in open-air pits that were not adequately secured to prevent contamination of the surrounding environment. There was also no segregation of hazardous solid waste, non-biodegradable materials and recyclable items; and solid waste were all disposed of in the same pits. Leachate from the disposal pits freely mixed with storm water during the rainy seasons. The dump sites attracted flocks of birds posing an aviation hazard to United Nations aircraft. There were two bird strike aviation incidents during the six-month period from January to June 2018.

(b) Wastewater treatment and disposal

17. In 13 of the 20 camp sites, UNISFA did not have wastewater treatment plants. At 4 of the 13 camps, wastewater was collected in shipping containers that were buried in the ground and drained into a soak pit, and the remaining 9 had concrete-walled septic tanks connected to soak pits. This was not a proper way to treat and dispose of wastewater and presented a high risk of sewerage contamination to nearby communities due to overflow during the rainy season. The Mission had wastewater treatment plants for the remaining seven camp sites. However, in four of the seven camp sites with wastewater treatment plants, they were not operational due to a lack of skilled labor in the Mission area to operate them. Further, the treated wastewater was released into the environment without being tested to ensure the water was sufficiently clean, as there was no water and sanitation laboratory to conduct the necessary tests.

18. UNISFA faced several challenges which impeded the effective management of its wastewater including: (a) the absence of municipal wastewater management infrastructure in the Abyei region; (b) difficulty in recruiting key personnel responsible for the management and coordination of wastewater management activities; and (c) location of Mission camp sites in swampy and flat terrain that were prone to flooding during the rainy season.

(c) Medical waste

19. UNISFA had one level II hospital, which had an incinerator. It was intended that for the level II hospital to be the location for the collection and thus disposal point for all medical waste from the 11 level I clinics in various locations. However, the capacity of the level II hospital incinerator could not accommodate the volume of medical waste generated. This resulted in open air burning of medical waste which included glass bottles, needles, drugs and used medical supplies.

20. The above resulted, as UNISFA had not developed a waste management plan to effectively manage its waste, outlining the Mission's waste management objectives, actions and targets for each waste category. UNISFA also did not have adequate facilities and capacity such as a waste management yard, wastewater treatment plants and a water testing laboratory. Additionally, UNISFA was relying on unskilled individual contractors to manage its solid and liquid waste, but at the same time, the Mission had not dedicated resources to train and supervise the individual contractors.

21. In November 2017, to eliminate reliance on unskilled individual contractors, UNISFA entered into an agreement with a contractor for the provision of camp management services. The contract outsourced the responsibilities for the operation and maintenance of all waste management treatment plants and collection and disposal of garbage waste. However, UNISFA was only able to obtain clearance from the government for the contractor to commence operations in the Mission in August 2018. The contractor still awaits issuance of visas for its personnel to commence operations. Once the contractor commences these operations, the Mission would need to closely monitor the contractor's performance.

22. The conditions noted during the audit increased health and safety risks to Mission personnel and local communities, as well as environmental risks.

(2) UNISFA should develop and implement a comprehensive waste management plan outlining the Mission's waste management objectives, actions and targets for each waste category, and including: (a) a mechanism to monitor the performance of the camp management services contractor on wastewater treatment and garbage collection; and (b) provision for necessary facilities and equipment including a waste management yard, wastewater treatment equipment and testing laboratory and a suitable medical waste incinerator.

UNISFA accepted the recommendation and stated that it will establish a waste management plan before 30 June 2019. A robust mechanism for monitoring the camp service contractor will be reviewed when the contractor is fully on board and operational. Additionally, the completion of the incinerator installation will aid in developing this mechanism to be more efficient. For drinking water and wastewater quality testing, modalities to use an external laboratory are underway, first through a low-value-acquisition process then through a formal contract. Recruitment of an individual international contractor to man the water and wastewater laboratory is at the candidate selection stage. Recommendation 2 remains open pending receipt of a waste management plan and mechanism to monitor the camp management services contractor's performance and evidence that the necessary facilities and equipment are in place.

Collection and disposal of petroleum, oil and lubricants was not done in an environmentally friendly way

23. The Mission's contract for fuel supply and service requires the contractor to safely collect and dispose of petroleum, oil and lubricant (POL) waste from all distribution or generator points within the Mission on a monthly basis.

24. A review of records from three camps on POL waste collected by the contractor from January to March 2018 showed that the contractor only collected the waste from 2 of the 11 distribution points in these camps. This resulted in an accumulation of POL waste in the various locations. The Mission advised that POL waste was commonly drained off into the ground or directly into storm water channels at various Mission locations. In addition, OIOS' inspection of the contractor's site located within the Abyei camp showed that waste oil containers allowed POL seepage into the storm water drainage channels resulting in soil and water contamination.

25. The Mission did not monitor the fuel contractor's actions to ensure that the contractor was fulfilling their contractual obligations on collection and disposal of POL waste.

(3) UNISFA should implement monitoring mechanisms to ensure the fuel contractor collects petroleum, oil and lubricant waste from all the designated collection points in line with the fuel supply services contract.

UNISFA accepted the recommendation and stated that it has implemented a monitoring mechanism to include the quantity of lubricants issued and waste oil received will be included in the monthly monitoring report. Recommendation 3 remains open pending receipt of evidence of a mechanism in place to monitor and ensure proper collection and disposal of all POL waste.

The Mission implemented several initiatives towards waste reduction

26. UNISFA is required to incorporate waste reduction in its waste management strategy. The Mission initiated several measures to reduce the amount of waste generated and imported into the Mission area. The Mission was assessing their plastic usage at the source level to reduce the amount of non-biodegradable material that was brought into the Mission area. For example, the Mission was considering stopping the use of plastic bags in its duty-free shop and the importation of containers that have a biodegradable packaging option, such as polyethylene terephthalate (PET) bottles. The Mission had also engaged a consultant to review and re-engineer their operating processes with the view of streamlining operations and reducing waste. Also, the Environmental Officer will review the new engineering projects of the Mission at the inception to ensure that opportunities to reduce waste are identified and areas of risk mitigated.

IV. ACKNOWLEDGEMENT

27. OIOS wishes to express its appreciation to the management and staff of UNISFA for the assistance and cooperation extended to the auditors during this assignment.

(Signed) Eleanor T. Burns
Director, Internal Audit Division
Office of Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

Audit of waste management in the United Nations Interim Security Force for Abyei

Rec. no.	Recommendation	Critical ¹ / Important ²	C/ O ³	Actions needed to close recommendation	Implementation date ⁴
1	UNISFA should review and update its guidance directives for managing waste that reflect the specific needs of the Mission and establish a mechanism to regularly monitor and report on its waste management activities; appoint waste management focal points in all mission camp sites to report on and monitor waste management activities.	Important	O	Receipt of updated SOPs, and evidence that a waste management monitoring mechanism has been implemented.	30 June 2019
2	UNISFA should develop and implement a comprehensive waste management plan outlining the Mission's waste management objectives, actions and targets for each waste category, and including: (a) a mechanism to monitor the performance of the camp management services contractor on wastewater treatment and garbage collection; and (b) provision for necessary facilities and equipment including a waste management yard, wastewater treatment equipment and testing laboratory and a suitable medical waste incinerator.	Important	O	Receipt of a waste management plan and mechanism to monitor the camp management services contractor's performance and evidence that the necessary facilities and equipment are in place.	30 March 2019
3	UNISFA should implement monitoring mechanisms to ensure the fuel contractor collects petroleum, oil and lubricant waste from all the designated collection points in line with the fuel supply services contract.	Important	O	Receipt of evidence of a mechanism in place to monitor and ensure proper collection and disposal of all POL waste.	30 November 2018

¹ Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

² Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

³ C = closed, O = open

⁴ Date provided by UNISFA in response to recommendations.

APPENDIX I

Management Response



UNISFA

United Nations Interim Security Force for Abyei

قوة الأمم المتحدة المؤقتة في ابوي

INTER-OFFICE MEMORANDUM28 November 2018
Ref: CMS/IOM/18/115

TO: Mr. Daeyoung Park,
Chief, Peacekeeping Audit Service
Internal Audit Division, OIOS

FROM: Robert Kirkwood
Chief of Mission Support
UNISFA

SUBJECT: **Draft report on an audit of waste management in the United Nations Interim Security Force for Abyei (Assignment No. AP2018/635/02)**

1. Further to your memorandum of 21 November 2018 forwarding the subject draft report on an audit of waste management in UNISFA, please find attached Mission response to the recommendations contained in the report.
2. Thank you and best regards.

cc: Major-General Gebre Adhana Woldezgu, Acting Head of Mission
Mr. Kingsley Chibuzor Ndume, Environmental Officer
Mr. Andrew Ddembe, Water and Sanitation Engineer

Management Response

Audit of waste management in the United Nations Interim Security Force for Abyei

c. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	UNISFA should review and update its guidance directives for managing waste that reflect the specific needs of the Mission and establish a mechanism to regularly monitor and report on its waste management activities; appoint waste management focal points in all mission camp sites to report on and monitor waste management activities.	Important	Yes	Environmental Officer	30 June 2019	The Mission already appointed environmental focal points for all the team site. Planned workshop with the focal points slated for 3 rd and 4 th December 2018. An ongoing collection of monthly data already established. A waste management plan to be established before 30 June 2019.
2	UNISFA should develop and implement a comprehensive waste management plan outlining the Mission's waste management objectives, actions and targets for each waste category, and including: (a) a mechanism to monitor the performance of the camp management services contractor on wastewater treatment and garbage collection; and (b) provision for necessary facilities and equipment including a waste management yard, wastewater treatment equipment and testing laboratory and a suitable medical waste incinerator.	Important	Yes	a) Facility Management Unit b) Environment Engineer	30 March 2019	A robust mechanism for monitoring the camp service contractor will be reviewed when the Contractor is fully on board and operational. Additionally, the completion of the incinerator installation will aid in developing this mechanism to be more efficient. The mission wishes to inform the OIOS that the statement in paragraph 19 of the audit report is not accurate. It is not true that sea container connected to soak pits are used in 13 camps as all camps have concrete/block-walled septic tanks connected to soak pits. Four (4) camps also have sea containers connected to soak pits in addition to the concrete/block-walled septic tanks (Tajalei, Todach, Highway & Banton). These sea

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² Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Management Response

Audit of waste management in the United Nations Interim Security Force for Abyei

						<p>containers holding tanks will be emptied, disinfected and backfilled by February 2019 when new septic tanks connected to wastewater treatment plants are installed except the one in Todach is no longer necessary and not in use.</p> <p>For drinking water and wastewater quality testing, modalities to use an external laboratory are underway, first through a low-value-acquisition process then through a formal contract. Recruitment of an individual international contractor to man the water and wastewater laboratory is at the candidate selection stage.</p>
3	UNISFA should implement monitoring mechanisms to ensure the fuel contractor collects petroleum, oil and lubricant waste from all the designated collection points in line with the fuel supply services contract.	Important	Yes	Chief, Fuel Unit	Implemented effective November 2018	The recommendation has been implemented effective November 2018. The quantities of lubricants issued, and waste oil received will be included in the monthly report.