INTERNAL AUDIT DIVISION

REPORT 2024/002

Audit of Electronic Fuel Management System

Control processes, particularly those relating to system design, data quality, project management and user access, need to be strengthened

24 January 2024
Assignment No. AT2022-517-03

Audit of the Electronic Fuel Management System

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of the Electronic Fuel Management System (EFMS2). The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes in ensuring that EFMS2 supported effective, efficient and economical fuel management. The audit covered the period from January 2020 to July 2023 and included a review of: (a) system analysis and design; (b) data management and fraud control; (c) project and change management; (d) information security; (e) user access management; and (f) information and communications technology (ICT) support procedures.

The audit indicated the need to strengthen control processes, particularly those relating to system design, data quality, project management and user access.

OIOS made 11 recommendations. To address the issues identified in the audit, the Logistics Division of the Department of Operational Support (DOS) needed to:

- Assess and define the requirements for further strengthening of data input controls in EFMS2;
- Remind mission Fuel Units for review and cleanup of EFMS2 data;
- Regularly report to the EFMS Project Board on the installation and configuration of single kilowatt hour meters for multi-generator sets;
- Issue guidance to missions on the specific EFMS2 reports that missions need to review, at a minimum, as part of their responsibility to monitor fuel consumption;
- Ensure that the EFMS2 Project Board meets regularly to improve the resolution of long outstanding issues, and that mission representatives participate in all meetings of the Board;
- Establish a plan to expedite the delivery of work packages of EFMS2 NG and present it to the EFMS Project Board for review;
- Streamline the change management procedures for EFMS2 to effectively capture, prioritize, assess and track all changes requested by missions and approved by the EFMS Project Board; and
- Collaborate with the Field Remote Infrastructure Monitoring (FRIM) implementation team to define the specific fuel management outputs to be derived from FRIM, and define the requirements for implementation by the Office of Information and Communications Technology (OICT).

OICT needed to:

- [redacted]
- [redacted]; and
- Ensure the visibility of all work order numbers pertaining to deleted EFMS2 transactions.

DOS and OICT accepted the recommendations. Actions required to close the recommendations are indicated in Annex I.

CONTENTS

Audit of the Electronic Fuel Management System

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the Electronic Fuel Management System (EFMS).

2. Fuel is a strategic asset and is a major expense for the United Nations. Fuel purchases amounted to $450 million in 2022 and accounted for 14 per cent of total purchases during the year. Since fuel is exposed to significant fraud risks, robust control mechanisms are required.

3. The current version of EFMS (known as EFMS2) developed by the Office of Information and Communications Technology (OICT) had been implemented in 15 field missions. The system's design and configuration, operating procedures and end user training are critical for ensuring robust control over fuel.

4. EFMS2 aimed to: (i) enhance the accuracy of data through minimal manual data entry by using barcodes and scanners for every transaction; (ii) detect data tampering; (iii) allow data audit by storing pictures of fuel meter readings and odometers; and (iv) reduce potential risks of fuel fraud, misappropriation and theft by monitoring demand/consumption trends. The system enabled Headquarters to access the data of all entities, whereas field missions had access to their own data.

5. EFMS2 encompassed approximately 100,000 fuel consuming, dispensing and storage equipment. These comprised of contingent-owned equipment (COE), United Nations-owned equipment, and equipment owned by suppliers and other organizations. From January 2020 to June 2023, field missions consumed 2.4 billion litres of fuel which was recorded in EFMS2 as three million records, of which 79 per cent of the transactions were attributed to four large missions: the United Nations Mission in South Sudan (27 per cent); the United Nations Support Office in Somalia (23 per cent); the United Nations Multidimensional Integrated Stabilization Mission in Mali – MINUSMA (16 per cent); and the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (13 per cent).

6. The 2023 fuel management guidelines provide guidance for effective control of fuel consumption. OICT policies, technical procedures and EFMS2 standard operating procedures (SOPs) define the requirements for EFMS2 operations.

7. EFMS2 was overseen by a Project Board consisting of members from the Logistics Division of the Department of Operational Support (DOS), OICT, and Fuel Units of field missions. The Logistics Division provided guidance and support to missions on EFMS2, while OICT provided technical assistance.

8. Accurate data on the expenditure incurred on EFMS2 was not available because it was merged with the expenditure on other applications. The best estimate of expenditure on EFMS2 for the audit period was $2.65 million.

9. Comments provided by OICT and DOS are incorporated in italics.

II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

10. The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes in ensuring that EFMS2 adequately supported effective, efficient and economical fuel management.

11. This audit was included in the 2023 risk-based work plan of OIOS due to the high risks associated with fuel operations, and the role of EFMS2 in ensuring effective fuel management.

12. OIOS conducted this audit from May to August 2023. The audit covered the period from January 2020 to July 2023. Based on an activity-level risk assessment, the audit covered risk areas relating to EFMS2 which included: (a) system analysis and design; (b) data management and fraud control; (c) project and change management; (d) information security; (e) user access management; and (f) information and communications technology (ICT) support procedures. OIOS selected MINUSMA for assessing the control processes of EFMS2 in the field.

13. The audit methodology included: (a) interviews with key personnel; (b) review of relevant documentation and supporting ICT infrastructure; (c) analytical review of data; (d) interviews; (e) process walkthroughs; (f) physical observation; and (h) survey.

14. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

III. AUDIT RESULTS

A. System analysis and design

Need to strengthen data input controls

15. ICT best practices recommend that systems design include application controls (i.e., authorization, input, processing and output) to ensure accuracy, completeness, timeliness, availability and auditability of data. Further, fuel management guidelines emphasize that the staff member receiving fuel is accountable for the fuel received. Therefore, controls to assure the integrity of data input must be robust. EFMS2 transactions involved the use of scanners to capture equipment barcodes and meter readings, quick response (QR) codes identifying the recipients, and the quantity of fuel consumed. These scanners updated the EFMS2 database by transmitting the recorded data. In MINUSMA, a manual issue voucher was used to record the fuel transaction, and copies of the same were provided to the fuel recipient, vendor and the mission's Fuel Unit for reference during reconciliations. OIOS noted the following:

(a) Scanner operators first entered the fuel dispensed and the odometer/kwh meter readings in EFMS2, and they then re-entered these figures in the system on behalf of the fuel recipients, which can result in misappropriation. For example, a scanner operator could enter a higher quantity than the actual quantity delivered and misappropriate the difference. Fuel recipients were unaware of the procedure requiring them to verify the entries made by scanner operators.

(b) Staff ID badges were not used to ensure that only authorized personnel received fuel since ID validation features were not part of the system design of EFMS2. OIOS found 23 transactions (18,076 litres) of fuel issued for MINUSMA-owned and COE generators that were received using the IDs of the fuel contractor's personnel. This may result in misappropriation of fuel by personnel who are not accountable for it.

(c) Since scanners did not validate the data of the equipment for which fuel is issued, the system accepted barcodes of unserviceable COE, meter readings that were lower than the previous reading for the same equipment, barcodes of inactive equipment, and dispensed quantities that exceeded the equipment's capacity. As a compensating control, transactions on inactive equipment and those that exceeded the equipment's capacity were flagged as discrepancies for further review by the Fuel Unit and the EFMS2

support team. OICT stated that since EFMS2 was designed to operate in locations with low internet connectivity, data validation at the time of the transaction was not feasible because it would require the scanners to query the EFMS2 database during the transaction entry.

16. A QR code stores data for a machine to read, making it a convenient way to store and access data. The implementation of the Field Remote Infrastructure Monitoring (FRIM) in some missions includes QR codes identifying the equipment and their energy meter readings. The Logistics Division identified this as a potential control to minimize human errors during EFMS2 data input, by scanning these QR codes instead of typing the meter readings into scanners.

17. There were security weaknesses which enabled scanners to accept unauthorized QR codes and barcodes. These included QR code and barcode photos and printouts generated using internet websites. OICT stated that it was evaluating technical solutions to strengthen the validation of QR codes.

(1) The Logistics Division of DOS, in collaboration with OICT, should assess and define the requirements for further strengthening of data input controls in EFMS2 to minimize the associated risks.

DOS accepted recommendation 1.

B. Data management and fraud control

Need to improve data quality

18. The fuel management guidelines require missions to update equipment records with appropriate standard fuel consumption units (FCU) and regularly update their tolerance percentage to reflect conditions in the respective missions. EFMS2 uses the tolerance percentage to calculate the adjusted standard FCU against which it flags overconsumption for investigation by the Fuel Unit. Missions need to regularly review the data in EFMS2 for anomalies, take action to prevent and correct errors, and establish robust fuel control and monitoring, supported by EFMS2 reports.

19. Recently implemented functions (such as manual transaction approval, discrepancy indicators and procedures for handling failed transactions) contributed to improved data quality. The Logistics Division also supported missions by providing training, reference materials on the fuel community of practice, discussions during workshops, and one visit in May 2023 to a large mission to fix data issues.

20. OIOS' analysis of EFMS2 master data, a survey of Fuel Unit chiefs, and review of transactions in MINUSMA indicated the need for further cleanup of EFMS2 data for completeness, accuracy and consistency. For example: (i) standard FCU and tolerances were missing in some missions' equipment master data; (ii) some mission's equipment descriptions were vague, and location of the equipment as recorded in EFMS2 was inaccurate; (iii) repatriated COE was not marked as inactive in EFMS2; and (iv) since Umoja equipment records which were referenced when creating equipment records in EFMS2 did not reflect capacity, Fuel Units entered equipment capacity in EFMS2 based on their own knowledge. A focus group comprised of two missions was designated in June 2022 to collate and centralize information on standard fuel consumption of equipment and tank capacity, but no significant progress had been made at the time of the audit.

21. The Logistics Division stated that it provided missions with guidelines to continuously review and clean up their EFMS2 data, but missions were yet to implement the necessary work plans. Incomplete,

inaccurate and inconsistent equipment data results in unreliable fuel consumption reports which impede effective control and monitoring.

(2) The Logistics Division of DOS should remind mission Fuel Units to implement continuous review and cleanup of EFMS2 data.

DOS accepted recommendation 2 and stated that it shall provide regular reminders (i.e., quarterly) to missions to take data cleanup actions. DOS also stated that the missions remain responsible for data clean-up action.

Need to install and configure single kilowatt hour meters for multi-generator sets

22. In April 2019, OICT recommended to the Logistics Division that missions should configure multi-generator sets in EFMS2 as a single unit with one kilowatt hour (kwh) meter installed for the entire set, to simplify data capture and improve the accuracy of data in EFMS2. In May 2019, the Logistics Division endorsed this recommendation in a memo to all missions and advised them to facilitate close cooperation between Fuel Units (Life Support) and Generator Units (Engineering) in missions to avoid duplication of efforts and resources. OICT also developed a SOP to reconfigure the equipment in EFMS2.

23. However, EFMS2 data for all missions showed that 383 out of 605 multi-generator sets (63 per cent) did not have a single kwh meter installed for them. MINUSMA stated that it only had 5 out of 94 multi-generator sets with a single kwh meter because installation of kwh meters was not required by the memoranda of understanding with troop/police contributing countries, and procurement of kwh meters for United Nations-owned generators was not adequately planned for and prioritized. Further, 193 multi-generator sets had not been re-configured by the missions' Fuel Units. Moreover, the missions did not submit iNeed requests for OICT to support them in the reconfiguration.

24. Incomplete installation of single kwh meters, incomplete configuration in EFMS2, and inaccurate data of multi-generator sets in EFMS2 impeded effective monitoring of their fuel consumption.

(3) The Logistics Division of DOS should regularly report to the EFMS Project Board on the installation and configuration of single kilowatt hour meters for multi-generator sets.

DOS accepted recommendation 3 and stated that the missions remain responsible for the installation and configuration of single kilowatt hour meters for multi-generator sets.

Use of EFMS2 fuel consumption reports was low

25. EFMS2 provided a transaction list and various reports for missions to use in day-to-day fuel transaction verification, monthly reconciliations, monitoring consumption trends, and investigating anomalies. The fuel management guidelines require missions to establish in their SOPs the frequency of monitoring and reporting on fuel efficiency of equipment to ensure timely identification and implementation of corrective actions.

26. OIOS noted that missions' use of EFMS2 reports was low, indicating that fuel consumption monitoring was not done regularly by using these reports. For example, the most-accessed EFMS2 report – "POL All Transactions" – had an average of 117 hits per month. Twenty out of the 25 EFMS2 reports had an average of less than seven hits per month by users from the 15 missions.

27. Missions stated that they infrequently used the EFMS2 reports due to staffing constraints. While acknowledging that there may be staffing constraints, OIOS is of the view that monitoring of fuel

consumption is essential, considering the volume of expenditure and the high risk of fraud. Given the large number of reports, the Logistics Division could provide guidance to missions on the more important EFMS2 reports that need to be reviewed regularly.

(4) The Logistics Division of DOS should issue guidance to missions on the specific EFMS2 reports that missions need to review, at a minimum, as part of their responsibility to monitor fuel consumption.

DOS accepted recommendation 4 and stated that some reports of EFMS2 derive from other reports and missions have various ways to get the same information under its current reporting system. The purpose of EFMS enhancement is to standardize those reports. DOS further stated that guidance will be developed for current reports and guidance will be provided when new reports are developed.

C. Project and change management

The effectiveness of the EFMS Project Board needed to be improved

28. The EFMS Project Board was established in 2016 to: (i) take responsibility for the project's feasibility, business plan and achievement of outcomes; (ii) define and control the project scope and priorities to ensure that the project's deliverables align with the requirements of stakeholder groups and the General Assembly's mandate; and (iii) collate, review and prioritize new user requirements, as provided by field missions and stakeholders at Headquarters. The Board is composed of senior stakeholders from the Logistics Division, OICT and chiefs of Fuel Units from two missions. According to the terms of reference, the Project Board should meet at least once every quarter to review overall implementation of EFMS, completion of pending tasks, and consideration of change management issues.

29. During the audit period, the Project Board should have met 14 times, but it had met only five times. The September 2020 and November 2021 meetings did not have any participant from field missions. Overall, the Board's agenda focused more on new functionalities and did not adequately consider long-outstanding EFMS2 issues. For example, in the March 2019 meeting, the Logistics Division presented an analysis of EFMS2 use and effectiveness, including data quality statistics. The Project Board discussed the actions required, which were: (a) missions need to address data quality issues such as input of FCU; (b) OICT needs to configure multi-generator sets for missions in EFMS2; and (c) missions need to implement kwh meters in their multi-generator sets. However, in the subsequent four meetings, the Project Board did not review the progress made in these matters.

(5) The Logistics Division of DOS should: (a) ensure that the EFMS2 Project Board meets regularly to improve the resolution of long outstanding issues; and (b) ensure that mission representatives participate in all meetings of the Project Board.

DOS accepted recommendation 5 and stated that the Project Board is composed of members of various services and/or divisions, therefore, the responsibility of meeting is collective, not of DOS. The new terms of reference for meetings (minimum two times per year) was presented to the Project Board and approved on 12 December 2023. DOS further stated that the Project Board is accountable for the resolution of long-standing issues related to its scope, but it cannot be held accountable for long outstanding issues of missions, as users of the system. DOS also stated that two missions will always be invited, and the Fuel Unit/Logistics Division will ensure its participation or replacement by other missions' representatives.

Need to expedite implementation of EFMS2 Next Generation

30. EFMS2 Next Generation (NG) aims to provide management and users at field missions and Headquarters with modules for fuel contract management, performance management framework, global fuel risk dashboard and fuel stock visibility, amongst others. EFMS2 NG also includes enhancements on manual transaction approval which had been completed, and archiving, bulk requests, location migration, vendor portal and volume correction factor which are ongoing. The EFMS Project Board resolved in September 2020 that the Logistics Division must develop a requirements document for EFMS2 NG with the involvement of field missions and OICT.

31. From early 2021 onwards, the Logistics Division and OICT engaged field missions through various channels such as fuel community of practice meetings, joint documentation of requirements, fuel workshops and memos to mission management. The Logistics Division and OICT incrementally documented the business and functional requirements based on the input from missions and the Office of Supply Chain Management. The EFMS Project Board discussed the EFMS2 NG business case, objectives, benefits and proposed modules and enhancements in its November 2021 meeting. In February 2022, the Board approved the EFMS2 NG work packages to be prioritized for delivery in 2022. However, EFMS2 NG project plan and work packages were not yet implemented. OICT stated that a comprehensive project plan was not established due to lack of resources.

(6) The Logistics Division of DOS, in collaboration with OICT, should establish a plan to expedite the delivery of work packages of EFMS2 NG and present it to the EFMS Project Board for review.

DOS accepted recommendation 6 and stated that it presented a plan to expedite the delivery of work packages for enhancements related to fuel movement and stock and secured the Project Board's approval for the plan on 12 December 2023. DOS further stated that it will develop a plan for the remaining initiatives and secure approval of the Project Board in subsequent 2024 board meetings.

Need to strengthen change management procedures

32. ICT best practices recommend implementing change management procedures to effectively manage standard changes and emergency maintenance relating to business processes, applications and infrastructure. The procedures should ensure that changes are logged, prioritized, categorized, assessed, authorized, planned and scheduled. A tracking and reporting system should also be in place to document rejected changes and communicate the status of approved, in-process and completed changes. The fuel management guidelines require field missions to submit change requests for EFMS2 through iNeed for prioritization by the Logistics Division and assessment of technical feasibility by OICT. Based on these assessments, the Logistics Division should submit a list of improvement projects to the EFMS Project Board which will recommend or establish development priorities.

33. OIOS noted the following:

(a) During the audit period, field missions submitted 55 iNeed requests for new functionality, but 47 of these were mis-categorized as they were not related to EFMS2 functionality changes. The eight requests that were for new/changed functionality included specific requests to improve fuel consumption reports, control changes to EFMS2 equipment master data, and improve vendor portal functionalities. OICT resolved the requests, but the Logistics Division was not involved because the change requests process in iNeed was not designed to involve the Logistics Division.

(b) Field missions requested changes to EFMS2 during fuel workshops, community of practice meetings and ad-hoc meetings with the Logistics Division or OICT. These requests were recorded in minutes but there was no visibility of how they were prioritized and assessed for technical feasibility because there was no clear mechanism for tracking such requests.

(c) OICT had documented a SOP for EFMS2 change management in May 2023, but the SOP was neither approved by the EFMS Project Board nor endorsed by the Logistics Division. Further, it had not been communicated to field missions.

34. These weaknesses need to be addressed to enhance the effectiveness of change management procedures for EFMS2.

(7) The Logistics Division of DOS, in collaboration with OICT, should streamline the change management procedures for EFMS2 to effectively capture, prioritize, assess and track all changes requested by missions and approved by the EFMS Project Board.

DOS accepted recommendation 7 and stated that the relevant change management procedure will be developed by expanding on Section D10.11 of the Fuel Management Guideline, in collaboration with OICT to effectively capture, prioritize, assess and track all changes requested by missions and approved by the EFMS Project Board.

Need to define FRIM outputs for fuel management

35. In May 2019, the Office of Supply Chain Management recommended to field missions that generators in the EFMS2 database be aligned with databases used by the missions' Engineering Sections and FRIM installations which collect data from sensors connected to mission infrastructure (including generator meters and fuel tanks). Information from these sources were to be compared and assessed to identify potential fuel misappropriation.

36. Five out of ten field missions indicated that they were not involved in their missions' ongoing FRIM projects. While two of the involved missions' Fuel Units had dashboards showing fuel tank levels and generators' power output, these were samples and had not been finalized because there was no specification of the outputs that the Fuel Units were to get from FRIM.

37. There was no evidence of collaboration between the Logistics Division and the FRIM implementation team to determine the specific outputs to be derived from FRIM. OICT was yet to define the approach for correlating data from FRIM and EFSM2.

(8) The Logistics Division of DOS, in consultation with missions, should: (a) collaborate with the FRIM implementation team to define the specific fuel management outputs to be derived from FRIM; and (b) define the requirements for implementation by OICT.

DOS accepted recommendation 8 and stated that in consultation with missions, it will collaborate with the FRIM implementation team to define the specific fuel management outputs, if any, and define requirements for OICT, if any.

D. Information security

[redacted]

38. [redacted]

39. [redacted]:

(a) [redacted].

(b) [redacted].

(c) [redacted].

(d) [redacted]

(e) [redacted].

(9) [redacted].

E. User access management

[redacted]

40. [redacted]

41. [redacted]

Table 1: [redacted]

Permissions	Mission users	Headquarters users	OIOS comments
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

42. [redacted]

[redacted]

43. [redacted]

44. [redacted]

(10) [redacted]

F. ICT support procedures

Need to strengthen ICT support procedures

45. EFMS2 users were required to submit service requests to OICT through the Unite self-service management system (iNeed). Tasks required to fulfil the service requests were assigned to Tier 2 support staff as work orders, with advanced technical work orders being assigned to Tier 3 support.

46. There were 2,698 work orders for the period January 2022 to August 2023. The majority of the work orders were for data changes such as correcting data entered erroneously, and deletion of duplicate transactions. EFMS2 transaction and equipment audit logs recorded the timestamp, values changed, and user ID of the person who made the changes. However, the processing of data changes had gaps as follows:

(a) OIOS found several instances of changes being made to MINUSMA data for 2020 and 2021 transactions. MINUSMA also submitted iNeed requests to amend EFMS2 transactions a second time, months after OICT had amended them the first time upon the mission's request. Similarly, EFMS2 accepted stock adjustments for much earlier periods. Such changes impact the reliability of historical fuel issuances and stock reports and may be misused for fraudulent purposes.

(b) Details of deleted transactions were retained in the scanner transactions table. However, work orders authorizing the deletion of some transactions could not be traced because the associated work order numbers were not consistently captured in the 'work order number' field of the scanner transactions table, resulting in inadequate audit trail.

(11) OICT should ensure the visibility of all work order numbers pertaining to deleted EFMS2 transactions.

OICT accepted recommendation 11.

IV. ACKNOWLEDGEMENT

47. OIOS wishes to express its appreciation to the management and staff of OICT, DOS and MINUSMA for the assistance and cooperation extended to the auditors during this assignment.

Internal Audit Division
Office of Internal Oversight Services

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STATUS OF AUDIT RECOMMENDATIONS

Audit of the Electronic Fuel Management System

Rec. no.	Recommendation	Critical[1]/ Important[2]	C/ O[3]	Actions needed to close recommendation	Implementation date[4]
1	The Logistics Division of DOS, in collaboration with OICT, should assess and define the requirements for further strengthening of data input controls in EFMS2 to minimize the associated risks.	Important	O	Receipt of evidence that requirements for further strengthening of data input controls in EFMS2 to minimize the associated risks have been assessed and defined.	31 March 2025
2	The Logistics Division of DOS should remind mission Fuel Units to implement continuous review and cleanup of EFMS2 data.	Important	O	Receipt of evidence that mission Fuel Units have been reminded to implement continuous review and cleanup of EFMS2 data.	31 March 2025
3	The Logistics Division of DOS should regularly report to the EFMS Project Board on the installation and configuration of single kilowatt hour meters for multi-generator sets.	Important	O	Receipt of evidence of regular reporting to the EFMS Project Board on the installation and configuration of single kwh meters for multi-generator sets.	31 March 2025
4	The Logistics Division of DOS should issue guidance to missions on the specific EFMS2 reports that missions need to review, at a minimum, as part of their responsibility to monitor fuel consumption.	Important	O	Receipt of evidence that guidance has been issued to missions on the specific EFMS2 reports that they need to review, at a minimum, as part of their responsibility to monitor fuel consumption.	31 March 2025
5	The Logistics Division of DOS should: (a) ensure that the EFMS2 Project Board meets regularly to improve the resolution of long outstanding issues; and (b) ensure that mission representatives participate in all meetings of the Project Board.	Important	O	Receipt of evidence that the EFMS2 Project Board meets regularly to improve the resolution of long outstanding issues; and mission representatives participate in all meetings of the Project Board.	31 March 2025
6	The Logistics Division of DOS, in collaboration with OICT, should establish a plan to expedite the delivery of work packages of EFMS2 NG and present it to the EFMS Project Board for review.	Important	O	Receipt of evidence that the EFMS2 NG plan has been presented to the Project Board for approval.	31 March 2025
7	The Logistics Division of DOS, in collaboration with OICT, should streamline the change management procedures for EFMS2 to effectively capture, prioritize, assess and track all changes requested by missions and approved by the EFMS Project Board.	Important	O	Receipt of evidence that change management procedures have been streamlined.	31 March 2025
8	The Logistics Division of DOS, in consultation with missions, should: (a) collaborate with the FRIM implementation team to define the specific fuel	Important	O	Receipt of evidence that specific fuel management outputs to be derived from FRIM	31 March 2025

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Audit of the Electronic Fuel Management System

	management outputs to be derived from FRIM; and (b) define the requirements for implementation by OICT.			and the requirements for implementation by OICT have been defined.	
9	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
10	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
11	OICT should ensure the visibility of all work order numbers pertaining to deleted EFMS2 transactions.	Important	O	Receipt of evidence that all work order numbers pertaining to deleted EFMS2 transactions are visible.	31 March 2025

[1] Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.
[2] Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.
[3] Please note the value C denotes closed recommendations whereas O refers to open recommendations.
[4] Date provided by DOS and OICT in response to recommendations.

APPENDIX I

Management Response

United Nations Nations Unies

INTEROFFICE MEMORANDUM MEMORANDUM INTERNE

TO: A: Ms. Fatoumata Ndiaye, Under-Secretary-General for Internal Oversight Services

DATE: 12 January 2024

REFERENCE: DOS-2023-05103

CLASSIFICATION: Unclassified

THROUGH: S/C DE:

FROM: DE: Atul Khare, Under-Secretary-General for Operational Support

SUBJECT: OBJET: **Draft report on an audit of the Electronic Fuel Management System (Assignment No. AT2022-517-03)**

1. Thank you for the opportunity to comment on the draft report of the Office of Internal Oversight Services on the audit of the Electronic Fuel Management System. Please find attached our comments on the recommendation action plan.

2. We appreciate the excellent cooperation between the Office of Internal Oversight Services and the Administration and stand ready to provide any additional clarification that may be required.

CC: Jeffrey Lin
Byung-Kun Min
David Nyskohus

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Management Response

Audit of the Electronic Fuel Management System

Rec. no.	Recommendation	Critical[1]/ Important[2]	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	The Logistics Division of DOS, in collaboration with OICT, should assess and define the requirements for further strengthening of data input controls in EFMS2 to minimize the associated risks.	Important	Yes	Chief, Fuel Unit	31 March 2025	The comments of DOS are reflected in the report.
2	The Logistics Division of DOS should ~~provide regular~~ remind~~ers to~~ mission Fuel Units to implement continuous review and cleanup of EFMS2 data.	Important	Yes, if revised as requested	Chief, Fuel Unit	31 March 2025	The comments of DOS are reflected in the report. It should, however, be noted that the missions remain responsible for data clean-up action.
3	The Logistics Division of DOS should regularly report to the EFMS Project Board on the installation and configuration of single kilowatt hour meters for multi-generator sets.	Important	Yes	Chief, Fuel Unit	31 March 2025	The comments of DOS are reflected in the report. It should, however, be noted that the missions remain responsible for the installation and configuration of single kilowatt hour meters for multi-generator sets.
4	The Logistics Division of DOS should issue guidance to missions on the specific EFMS2 reports that missions need to review, at a minimum, as part of their responsibility to monitor fuel consumption.	Important	Yes	Chief, Fuel Unit	31 March 2025	The comments of DOS are reflected in the report.

[1] Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.

[2] Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.

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Management Response

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5	The Logistics Division of DOS should: (a) ensure that the EFMS2 Project Board meets regularly to improve the resolution of long outstanding issues; and (b) ensure that mission representatives participate in all meetings of the Project Board.	Important	Yes	Chief, Fuel Unit	31 March 2025	The comments of DOS are reflected in the report. New terms of reference for meetings (minimum two times per year) was presented to the Project Board and approved on 12 December 2023.
6	The Logistics Division of DOS, ~~in collaboration with~~ **and** OICT, should establish a plan to expedite the delivery of work packages of EFMS2 NG and present it to the EFMS Project Board for review.	Important	Yes, if revised as requested	Chief, Fuel Unit	31 March 2025	DOS presented a plan to expedite delivery of work packages for enhancements related to fuel movement and stock. The Department secured the Project Board's approval for the plan on 12 December 2023. DOS will develop a plan for the remaining initiatives and secure approval of the Project Board in subsequent 2024 board meetings. DOS requests that the penultimate and ultimate sentences of para. 31 be deleted from the report.
7	The Logistics Division of DOS, in collaboration with OICT, should streamline the change management procedures for EFMS2 to effectively capture, prioritize, assess and track all changes requested by missions and approved by the EFMS Project Board.	Important	Yes	Chief, Fuel Unit	31 March 2025	The relevant change management procedure will be developed by expanding on Section D10.11 of the Fuel Management Guideline (FMG), in collaboration with OICT to effectively capture, prioritize, assess, and track all changes requested by missions and approved by the EFMS Project Board.

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8	The Logistics Division of DOS, in consultation with missions, should: (a) collaborate with the FRIM implementation team to define the specific fuel management outputs to be derived from FRIM; and (b) define the requirements for implementation by OICT.	Important	(a) Yes (b) Subject to availability of a valuable parameter from (a)	Chief, Fuel Unit	31 March 2025	DOS in consultation with missions will (a) collaborate with the Field Remote Infrastructure Monitoring (FRIM) implementation team to define the specific fuel management outputs, if any (b) define requirements for OICT, if any.
9	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
10	The Logistics Division of DOS, in consultation with field missions, should document rules for the EFMS2 permissions to be granted to staff, in line with their responsibilities.	Important	No	N/A	N/A	Section D.10.10 of the Fuel management guideline defines the rules to be followed in granting EFMS2 roles to staff members.
11	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

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12	The Logistics Division of DOS, in consultation with OICT and the missions, should define rules for data changes, including cut-off periods where appropriate.	Important	No	N/A	N/A	The existing EFMS2 SOP and user guide define rules for data changes.
13	OICT should ensure the visibility of all work order numbers pertaining to deleted EFMS2 transactions.	Important	Yes	Chief, Service Management Section	31 March 2025	The comments of DOS are reflected in the report.