



Office of Internal Oversight Services

INTERNAL AUDIT DIVISION

AUDIT REPORT

Capital Master Plan procurement and contract management including change orders

Internal controls over the signing of Guaranteed Maximum Price contracts were effective but there is a need to improve controls related to the procurement of trade contracts

11 July 2011

Assignment No. AC2011/514/01

United Nations  Nations Unies

INTEROFFICE MEMORANDUM

MEMORANDUM INTERIEUR

OFFICE OF INTERNAL OVERSIGHT SERVICES · BUREAU DES SERVICES DE CONTRÔLE INTERNE

INTERNAL AUDIT DIVISION · DIVISION DE L'AUDIT INTERNE

TO: Ms. Angela Kane, Under-Secretary-General for
A: Management

DATE: 11 July 2011

Mr. Michael Adlerstein, Assistant Secretary-General and
Executive Director, Capital Master Plan

Mr. Warren Sach, Assistant Secretary-General
Office of Central Support Services

FROM: Fatoumata Ndiaye, Director
Internal Audit Division, OIOS

REFERENCE: IAD: 11- *00480*



SUBJECT: **Assignment No. AC2011/514/01 - Audit of CMP procurement and contract management**
OBJET: **including change orders**

1. I am pleased to present the report on the above-mentioned audit.

2. Based on your comments, we are pleased to inform you that we will close recommendation 1 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 high risk (recommendations 3 and 6), in its annual report to the General Assembly and semi-annual report to the Secretary-General.

cc: Mr. Dmitri Dovgopoly, Officer-in-Charge, Procurement Division, OCSS
Mr. Swatantra Goolsarran, Executive Secretary, UN Board of Auditors
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INTERNAL AUDIT DIVISION

FUNCTION

“The Office shall, in accordance with the relevant provisions of the Financial Regulations and Rules of the United Nations examine, review and appraise the use of financial resources of the United Nations in order to guarantee the implementation of programmes and legislative mandates, ascertain compliance of programme managers with the financial and administrative regulations and rules, as well as with the approved recommendations of external oversight bodies, undertake management audits, reviews and surveys to improve the structure of the Organization and its responsiveness to the requirements of programmes and legislative mandates, and monitor the effectiveness of the systems of internal control of the Organization” (General Assembly Resolution 48/218 B).

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EXECUTIVE SUMMARY

Audit of CMP procurement and contract management including change orders

The Office of Internal Oversight Services (OIOS) conducted an audit of Capital Master Plan (CMP) procurement and contract management including change orders. The overall objective of the audit was to assess the adequacy and effectiveness of the key controls over CMP's activities relating to procurement and contract management. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

The Office of CMP has established an appropriate internal control structure with segregation of duties to review and evaluate the Guaranteed Maximum Price proposals to promote the attainment of best value. However, the controls over the procurement of trade contracts by the construction manager, Skanska, need improvement to ensure transparency and fairness of the procurement process.

The Post Award Review Committee was established by the Assistant Secretary-General, Office of Central Support Services to conduct the technical review of change orders and compliance review of contract amendments. However, the delay in setting up the Committee and the slow review process contribute to the lack of lessons learned for the current and future transactions. A large backlog of cases exists for the Committee to review and there is a need to reconsider the current working arrangements to ensure the Committee's relevance to *ex-post facto* control.

It took the Office of CMP between 29 and 174 days to approve the change orders under review and the time taken averaged 70 days. Change orders cannot be paid before they are approved and long approval times may negatively affect trade contractors' cash flows and consequently, may give rise to claims and disputes between the trade contractors and the construction manager. There is a risk that the construction manager may further pass these claims to the United Nations.

Over 70 per cent of change orders were due to owner (i.e. United Nations) requested scope changes. The reasons for owner requested change orders were not sufficiently explained. The change order request often cites design changes and detailed technical explanations but not the originator of the change and the circumstances that led to it. The Office of CMP did not provide the requested list of change orders initiated by user departments with costs of change in design and construction. Although the change order review process had internal controls for approval of individual change orders, the fundamental question of why change occurs and who is accountable could not be answered.

The Office of CMP has established rigorous arrangements for achieving the required level of quality.

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I. INTRODUCTION

1. The Office of Internal Oversight Services (OIOS) conducted an audit of Capital Master Plan (CMP) procurement and contract management including change orders. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.
2. The CMP was established by General Assembly resolution 55/238. The budget of \$1,876.7 million was approved by General Assembly resolution 61/251 and the CMP is proceeding in terms of the accelerated strategy in accordance with General Assembly resolution 62/87. This OIOS report is issued to comply with General Assembly's resolution 63/270 that requested the Secretary-General to entrust OIOS to report to General Assembly on all aspects of the procurement process related to the CMP.
3. This report includes consideration of factors that may restrict the diversification of the origin of vendors, including the current subcontracting process, local regulations, labour laws and sustainability options, as well as information on vendors' compliance with existing rules and regulations of the United Nations and general conditions of the contract. The audit covered the complete procurement cycle, including contract management and change orders.
4. Comments made by the Office of CMP and the Office of Central Support Services are shown in italics.

II. AUDIT OBJECTIVES

5. The main objective of the audit was to assess the adequacy and effectiveness of key controls over CMP's activities relating to procurement and contract management, including change orders.

III. AUDIT SCOPE AND METHODOLOGY

6. The audit reviewed operations of the Office of CMP pertaining to the procurement and contract management between 2008 and 2010. The population of contracts for sample testing included two GMP contracts submitted and reviewed in 2009 (Secretariat and curtain wall with a cumulative value of \$335 million) and the procurement of trade contracts related to these GMP contracts. Both GMP contracts are still current. The audit also examined change orders over \$500,000 (increase in GMP) and negative change orders (decrease in GMP) over \$400,000.
 7. OIOS examined relevant documents and records including:
 - (a) Contracts entered into by the United Nations with Skanska and the consultant programme manager Gardiner and Theobald (G&T);
 - (b) Deliverables under the contracts and monitoring;
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- (c) GMP estimates and reconciliations between the separate estimates prepared by Skanska and G&T;
 - (d) Headquarters Committee on Contracts (HCC) deliberations and recommendations for approval of selected GMP contracts;
 - (e) Delegation of authority to Procurement Division and the Office of CMP;
 - (f) Bid openings, bid levelings and recommendations for award of trade contracts;
 - (g) Evidence of monitoring and oversight by the Office of CMP and Procurement Division of the procurement of trade contracts;
 - (h) Consultant integrity monitors' monthly reports and clearance of trade contractors;
 - (i) Supporting documents with justification for change orders, contingencies and allowances;
 - (j) Evidence of quality monitoring by design consultants and the commissioning agent; and
 - (k) Minutes of Director's and construction coordination meetings.

8. Interviews were conducted with personnel of the Office of CMP, the Procurement Division, consultant programme manager, Skanska and the Chairman of the Post Award Review Committee.

IV. AUDIT RESULTS

A. Contractual framework

9. The United Nations entered into a Preconstruction Services Agreement with Skanska USA Building Inc. (Skanska) on 27 July 2007 for the amount not to exceed \$7,022,000. The Preconstruction Services Agreement required Skanska to carry out a detailed construction schedule, cost estimates, quality assurance and control processes, public worker safety programmes, value engineering and proposals for main construction works. Since then the United Nations has signed contract amendments to the Preconstruction Services Agreement in the amount of \$41,648,840 for early contract works including testing, probes and inspections.

10. Section 12.27 of the Preconstruction Service Agreement stipulated that the United Nations and Skanska would enter into a Coordination Agreement upon conclusion of the preconstruction service phase of the CMP. On 18 May 2009, the United Nations entered into a Coordination Agreement with Skanska for \$28,500,000. The Coordination Agreement addresses the overall coordination and responsibility for the services to be performed by Skanska with

respect to the CMP. The Coordination Agreement includes the roles and responsibilities of Skanska as construction manager, the process to be followed for management of construction, and the fees to be paid. Since then the United Nations has signed amendments to the Coordination Agreement in the amount of \$27,533,260 for early contract works related to packages for which GMP contracts have not yet been signed.

11. The United Nations has entered into 16 out of approximately 21 GMP contracts with Skanska for the different projects that together comprise the entire CMP (see Table 1).

Table 1: List of guaranteed maximum price contracts signed as of 31 December 2010

Description	Contract date	Contract amount (\$)
Basement Bid Package 2-Prepurchase	27 March 2009	25,106,883
Basement Bid Package 2-Installation	15 June 2009	141,786,436
Fire Alarm System	8 March 2010	9,551,280
Subtotal Basement Package 2		176,444,599
North Lawn Conference Building (Package 1)	18 July 2008	29,009,179
North Lawn Conference Building (Package 2)	8 Aug. 2008	6,495,536
North Lawn Conference Building (Package 3)	21 Nov. 2008	19,203,968
North Lawn Conference Building (Package 4&5)	12 Dec. 2008	41,313,763
North Lawn Conference Building (Package 6)	2 April 2009	37,527,990
Subtotal North Lawn Conference Building		133,550,436
305 E 46 Street	21 Nov. 2008	22,220,151
Contract B-3B Swing space Package 1	9 Oct. 2008	12,645,161
United Nations Federal Credit Union	9 Dec. 2008	8,588,900
Curtain wall	19 March 2009	128,337,747
380 Madison Avenue	9 April 2009	34,033,002
Furniture for swing spaces	15 April 2009	13,744,754
Hoist	22 Sept. 2009	20,934,300
Secretariat	1 Feb. 2010	206,966,117
Total		757,465,167

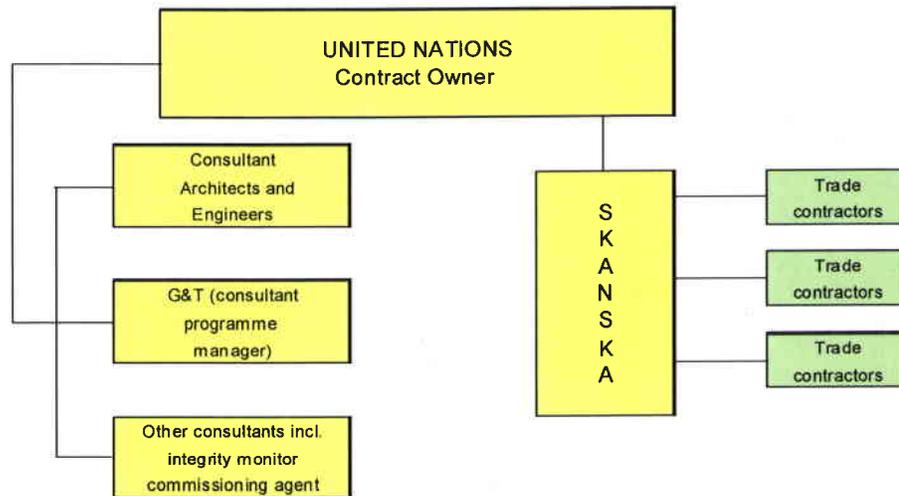
12. Under the terms of GMP contracts, Skanska implements and oversees the approved construction and contracting plan, monitors and controls project costs, monitors and maintains site safety, ensures quality assurance and control, and procures the construction work. The GMP amount consists of trade costs, general conditions, fees, contingencies, allowances and insurance. Skanska is paid for the percentage of completion of trade costs and general conditions costs along with pre-agreed fees and insurance. The GMP is the ceiling price for each parcel of work beyond which the United Nations is not obligated to compensate Skanska for the pre-determined scope of works. Any loss due to increase in market price must be absorbed by Skanska and any savings generated belong to the United Nations. However, changes made by the United Nations to the scope of works or schedule during a contract will result in either an increase or a decrease to the GMP. Skanska follows a competitive bidding process to award

contracts to trade contractors that can be signed only after approval by the Office of CMP.

13. The United Nations employs firms of design consultants and other firms to act as integrity monitor, commissioning agent and G&T for the effective execution of project. G&T advises the Office of CMP on the technical aspects of Skanska's GMP proposals, and the fairness and reasonableness of costs.

14. Figure 1 shows the contractual framework for CMP.

Figure 1: CMP contractual framework



15. In OIOS' opinion, the contractual framework is adequately designed to implement the CMP and has been operating satisfactorily.

B. The GMP review process

1. GMP submittal and review procedures

16. The United Nations and Skanska have agreed to the standard terms and conditions for GMP contracts including the construction fee, insurance and contract security costs in the Preconstruction Services Agreement. Other components of a GMP contract, including trade contractor costs and general conditions costs (Skanska's management costs), are negotiated for each GMP. According to the 'Special procedures for the procurement of goods and services required to complete CMP' issued by the Procurement Division on 31 October 2008, Skanska may seek competitive bidding of trade contracts before a GMP proposal is submitted or include estimates for trade packages as part of its GMP proposal.

17. Prior to submittal of a GMP proposal by Skanska, both Skanska and G&T independently prepare cost estimates for the GMP package based on design documents. Both estimates are submitted to the Director of Construction, Office

of CMP. The Director of Construction reviews the estimates and requests Skanska and consultant programme manager to reconcile the difference. The Director of Construction also prepares his own estimates for major trades and oversees the reconciliation process. This adds to the level of oversight over both Skanska and G&T.

18. Once the design and construction documents are completed, Skanska prepares a GMP proposal. As part of this process, Skanska may start the procurement of trade contracts to test market conditions and confirm that actual bids come within estimates. Skanska stated that before a GMP proposal is submitted at least 75 per cent of trade contracts are in the process of bidding at various stages.

19. Skanska submits the GMP proposal to the Office of CMP with the following breakdowns: estimated trade costs, proposed staffing plan, project schedule, exclusions and allowances. G&T reviews the GMP proposal in detail and together with the Office of CMP negotiates with Skanska terms and cost of the proposal. Skanska submits the revised proposal after negotiations.

20. The Office of CMP has established a technical evaluation committee to review Skanska's GMP proposals. This committee comprises the Director of Construction, Chief of Design and Chief of Administration and Communication. A G&T representative acts as a non-voting advisor. G&T carries out a financial review of the proposal and issues recommendations to the Office of CMP and the Procurement Division. The committee issues a recommendation to submit the GMP proposal for review by the Headquarters Committee on Contracts (HCC).

21. The Procurement Division, based on G&T's financial review, conducts further evaluation of a GMP proposal, checking it against the CMP budget and seeing if any benchmarks on the cost of comparative construction projects in New York City identified by G&T have been exceeded. Procurement Division stated that their review focuses on compliance with established procedures and otherwise relies on the work conducted by G&T. The Procurement Division does not conduct independent estimates or benchmarking against industry norms.

22. The Procurement Division and the Office of CMP prepare a presentation on a GMP proposal to HCC. The role of HCC is to review whether the evaluations of the GMP proposal (technical and financial) transparently show that Skanska's proposal is technically acceptable and that the GMP is fair. The Procurement Division in conjunction with the Office of Legal Affairs (OLA) reviews and signs the GMP contract with Skanska.

23. In OIOS' opinion, the Office of CMP has established an appropriate internal control structure with segregation of duties to review and evaluate the GMP to promote the attainment of best value. The results of OIOS's review of controls are described in the following section.

2. OIOS review of the GMP proposal and approval process

24. OIOS conducted a review of two GMP proposals for the curtain wall and the Secretariat building with contract values of \$128 million and \$207 million respectively.

(a) Curtain wall

25. The reconciliation process for estimates prepared by Skanska, G&T and the Director of Construction was in compliance with the established procedures..

26. The initial proposal from Skanska was submitted after 85 per cent of the bids from the trade contractors had been received and were subject to negotiations by Skanska. This provided assurance that the trade costs of the GMP proposal were aligned with market conditions and Skanska could guarantee the price of the GMP.

27. After the review by G&T and the Office of CMP, Skanska reduced its proposal by \$8.5 million due to adjustment for market conditions. This reflected well on the effectiveness of the G&T and the Office of CMP cost control roles.

28. Based on the technical evaluation committee reports and financial reviews by both G&T and the Procurement Division, the GMP cost was within the benchmark of comparable renovation projects in New York City.

29. HCC review of the GMP proposal was satisfactory. HCC recommended the proposed contract award for approval by the Assistant Secretary-General (ASG), Office of Central Support Services (OCSS) in line with established procedures. Procurement Division's presentation adequately described the scope of the project and procedures for evaluating of Skanska's proposal.

30. OIOS concluded that the consideration of the proposal received due diligence from the responsible members of the project team and the HCC.

(b) Secretariat building

31. The reconciliation process for estimates prepared by Skanska, G&T and the Director of Construction was in compliance with the established procedures.

32. Architects reviewed the estimates and provided necessary clarifications.

33. Three proposals were received in sequence from Skanska before the contract was signed. This was because the initial proposals exceeded the budget. The final proposal was \$30 million lower than the original proposal as a result of negotiations due to market conditions.

34. Seventy-two per cent of trade contracts were under various phases of bidding at the time of the last proposal from Skanska.

35. HCC sought necessary clarifications before recommending the proposed contract award for approval by the ASG, OCSS in line with established procedures. The HCC review of the GMP proposal was satisfactory.

36. Based on the review of internal controls of GMP proposal and approval process for curtain wall and Secretariat GMPs, OIOS concluded that controls operated effectively.

C. Procurement of trade contracts by Skanska

37. Skanska follows a process that was established in consultation with the Procurement Division and the Office of CMP, and is described in the project manual.

38. The process for the bidding and award of trade contracts is carried out by Skanska in consultation with the Procurement Division and the Office of CMP. Skanska has the responsibilities to:

(a) Advertise procurement opportunities and collect expressions of interest from potential trade contractors through Skanska's project website. Both the Procurement Division and the CMP project websites have links to Skanska's website.

(b) Establish pre-qualification criteria and pre-qualify trade contractors.

(c) Establish bid lists of trade contractors that were pre-qualified in Skanska's database and those that responded to invitations for expressions of interest. Skanska usually includes between five to ten companies in the bidders list to ensure that at least three companies will respond to a request for proposal.

(d) Receive bids in sealed envelopes to be opened in the presence of the representatives of G&T and the Procurement Division.

(e) Conduct bid analysis and leveling, which is a scope verification based on individual meetings with trade contractors attended by G&T and the Procurement Division.

(f) Negotiate with low bidders and recommend the award of the contract to a successful bidder. The Office of CMP approves the successful bidder after the review by G&T, the integrity monitor and the Procurement Division.

1. Integrity monitoring

39. In April 2009, the United Nations entered into a contract (not to exceed \$1,192,000) with a consultant for the provision of integrity monitoring services. The purpose of integrity monitoring is to:

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- (a) Prevent fraud, waste, abuse and corruption.
 - (b) Alert CMP management to potentially risky or weak areas through periodic reports and interim updates.
 - (c) Report actual transgressions if found.
 - (d) Design and implement corruption prevention programmes.
 - (e) Provide investigative services as necessary.

40. OIOS reviewed 111 out of 170 reports on trade contractors issued by the integrity monitor. The integrity monitor identified information on three companies that might warrant excluding them from consideration for the award of contracts. Two of these companies were not on the list of trade contractors for the CMP project. The third company was contracted by Skanska, however, the contract was signed and completed satisfactorily prior to the review by the integrity monitor.

41. OIOS considers the integrity monitor an important control for the project. It is a good practice to mitigate risk to the United Nations' reputation by ensuring that trade contractors hired for the CMP have a good track record.

2. OIOS examination of the procurement of trade contracts

42. OIOS examined the procurement of trade contracts related to two GMP contracts: curtain wall and Secretariat building.

(a) Curtain wall

43. The invitation for expressions of interest related to the curtain wall entrances and louvers was posted on Skanska's website for only three weeks. The contract for entrances and louvers with a value of \$75.5 million comprises 85 per cent of trade costs for the curtain wall. Skanska explained that although the posting period of three weeks was shorter than the recommended four weeks, it was essential to maintain the schedule. Skanska indicated that the curtain wall was the first big procurement exercise that started at the end of 2007. It took time for the Office of CMP and the Procurement Division to review trade contractors' screening criteria and the text of the invitation to submit an Expression of Interest (EOI). OIOS confirmed that Skanska posted an invitation to submit an EOI immediately after it received authorization from the Office of CMP. Furthermore, big manufacturers of the curtain wall panels were contacted directly by Skanska for solicitation of their interest in bidding for the project.

44. OIOS concluded that a short posting period of invitation to submit EOIs did not negatively affect the number of potential bidders in this case.

45. OIOS reviewed the bidders' lists for curtain wall entrances and louvers Lot A&B, abatement and demolition, and temporary protection compiled by Skanska which were reviewed by G&T, architects and engineers, the

Procurement Division and the Director of Construction before approval by the Executive Director of CMP. The main purpose of the review was to assess whether the trade contractors that were on the bidders list could perform the job. The Office of CMP and G&T added or removed a trade contractor to/from the bidders list only in rare circumstances when capacity or integrity of the trade contractor is questionable. The Office of CMP maintains the position that Skanska is hired to manage the trade contracts and by dictating which trade contractors to include on the bidders list, the Organization would be exposed to risk in case of non-performance of these trade contractors. OIOS concurs with this position.

46. OIOS reviewed bid opening sheets, bid leveling summaries, and Best and Final Offers (BAFOs) for four trade packages with a value of \$85.7 million for entrances and louvers (Lots A&B), temporary protection and abatement and demolition (Lot A) that comprised 97 per cent of trade contracts signed at the time of the audit and 85 per cent of the value of trade costs in the GMP contract. OIOS observed that the bid opening for the temporary protection package was done before the bidders' list was approved by the Office of CMP. The request for approval was sent to the Office of CMP on 9 June 2010 and was not approved until 15 July 2010. The bid opening took place on 25 June 2010 in order to maintain the schedule. The second bid opening and bid leveling (scope verification) with trade contractors also took place prior to approval of bidders by the Office of CMP.

47. Timely approval of bidders' lists by the Office of CMP is important because this is one of the controls designed to prevent the inclusion of unsuitable contractors, or bias towards any particular trade contractor.

48. Skanska had not prepared formal minutes of the leveling meetings for the procurement of entrances and louvers (Lots A&B packages) contrary to the procurement procedures included in the project manual that requires Skanska to document meetings and issue minutes. OIOS had made a previous recommendation in this regard in its audit report on the CMP construction manager's procurement process (AC2009/514/02 dated 27 August 2009).

49. Skanska was not required to keep copies of the transmission of invitations to bid, although Skanska maintained that all bidders on the approved bidders' list were invited. Acknowledgement of bidding documents is required from trade contractors but OIOS could not assess from these when the trade contractors were contacted and whether they had the same amount of time to prepare their bids.

(b) Secretariat building

50. The audit examined six trade packages with the value of \$80 million which represented 78 percent of contracts awarded at the time of the audit and 50 per cent of the value of trade costs in the GMP contract. OIOS observed a large number of BAFOs (between three and six in some instances) that were attributed to changes in the scope of work and clarifications issued by designers and engineers to trade contractors. Skanska explained that if time allowed, it would

continue bidding on the latest design information to limit the number of potential change orders because of changes in designs.

51. The invitation to bid for the abatement package was issued by Skanska before the bidders' list was approved by the Office of CMP. It took 27 days to review and approve the bidders' list by the Office of CMP, G&T, architects and engineers. Skanska explained that it chose not to wait for approval in order to maintain the schedule and would have had to adjust its strategy in case some of the trade contractors were not approved. For the same package, OIOS observed that the invitation to bid was sent to 13 trade contractors, four of which were not on the bidders' list. Skanska explained that it added three contractors from the demolition package that contained ten contractors approved by the Office of CMP under a separate request. However, it did not document the reasons why these contractors were selected. Skanska stated that the fourth vendor was added subsequently based on new information received by Skanska.

52. The bid opening sheet for the metal trade package (RFA 828) listed a vendor that did not submit a bid, nor was he on the approved bidders' list. The vendor was erroneously on the bid opening sheet. There were six out of 11 vendors that did not submit a bid and an Acknowledgement of Bidding form was not available from any of these vendors. Skanska also could not provide to OIOS any confirmation that the invitation to bid was sent to all vendors on the bidders' list via electronic mail or courier service. Keeping track of invitation to bid transmissions with a summary indicating the name of vendor and date and means of transmission would assist Skanska to follow-up on non-responsive contractors as well as transparency of the process. Evidence that copies of invitations to bid were actually dispatched should be attached to the summary and maintained for review by the Procurement Division.

53. According to the Procurement Division's instructions to Skanska dated 24 November 2009, BAFOs should only be solicited after approval by the Procurement Division. However, Skanska could not provide the Procurement Division's approval to solicit the BAFO for RFA 958A.

54. OIOS review of RFA 828 indicated that a BAFO was not solicited from a lower bidder. Skanska informed OIOS that the lower bidder was part of the group that was disqualified by Skanska's corporate function. However, this decision was not documented in the RFA memorandum and OIOS did not obtain evidence to support Skanska's explanation, or that this matter was questioned by either G&T or the Procurement Division.

55. The review of procurement of electrical installations in the Secretariat (RFA 842A) indicated that the lowest bidder was excluded from the next round of bidding because it was a part of the group that was disqualified by Skanska's corporate function. However, this decision was not documented in the RFA memorandum. Moreover, because of disqualification of this trade contractor, another trade contractor was invited to the third round of BAFO. However, Skanska could not explain why that particular bidder was invited when there were other lower bidders at the initial bidding that were not invited. Although there is no evidence of favoritism since the bidder that was invited to the third

round of bidding was not awarded the contract, OIOS is concerned that BAFO negotiations were not extended to the bidders offering competitive prices at the initial bidding.

56. The review of abatement package (RFA 709 A) showed that one bidder with a competitive quote for abatement was excluded from the next round of bidding because the cumulative bid for both abatement and demolition was high, consistent with the initial strategy to award contracts for both demolition and abatement to one contractor. However, the biddings for demolition and abatement were continued separately and eventually the contracts were also awarded separately. The exclusion of a lower bidder may have resulted in failure to obtain best value.

3. Summary of audit results

57. OIOS review and testing of the procurement of trade contracts for the curtain wall and the Secretariat has determined that bids have been subject to competition by contractors that have been pre-qualified by Skanska. Controls exercised over Skanska involve G&T, architects and engineers, Procurement Division and the Director of Construction, but areas are identified where their application could be improved. The CMP is very much driven by schedule in the knowledge that delays present a threat to the budget and some of the critical observations made in this section of the report reflect a desire on the part of both Skanska and the Office of CMP to work expediently. However, this must be done within a control environment that offers oversight and segregated duties.

58. In OIOS' opinion, it should be practical to apply established controls to improve transparency and check without adversely affecting timeliness. There is a need for record keeping to be improved in areas associated with Skanska's procurement activities. Recommendations are made below to assist the achievement of this objective.

Recommendation 1

(1) The Office of CMP should review and approve bidders lists without delay to prevent situations when bidding has reached advanced stages before bidders' lists are approved.

59. *The Office of CMP accepted recommendation 1 and stated that it will be continuously implemented.* Recommendation 1 has been closed based on the assurance provided by the Office of CMP.

Recommendations 2 and 3

The Procurement Division should:

(2) Instruct Skanska to: (i) maintain proof of transmission of invitations to bid; (ii) document and maintain leveling summaries; (iii) document reasons for dropping or adding a trade contractor in the next round of

bidding; and (iv) file written approvals of the Procurement Division to solicit best and final offers from a list of trade contractors to promote transparency in the bidding process; and

(3) Improve oversight of the procurement process for trade contracts and ensure that: (i) trade contractors confirm receipt of invitations to bid; (ii) all qualified bidders are invited to next rounds of bidding; and (iii) no qualified bidder is eliminated from the competition without a valid documented reason.

60. *OCSS accepted recommendations 2 and 3 and stated that in response to the previous OIOS audit of CMP construction manager's procurement process (AC2009/514/02) the Procurement Division issued a letter to Skanska dated 24 November 2009 regarding leveling procedures for trade contractor appointments. The Procurement Division will remind Skanska to follow these procedures. Recommendation 2 remains open pending issuance by the Procurement Division of an instruction to Skanska. Recommendation 3 remains open pending receipt of documentation from the Procurement Division showing that it has been implemented.*

D. Efforts to promote procurement from countries with developing economies and economies in transition

61. General Assembly resolution 63/270 requested the Secretary-General to entrust OIOS "to report on factors that may restrict the diversification of the geographical origin of vendors, such as the current subcontracting process, local regulations, labour laws and sustainability options, as well as vendors' compliance with existing regulations and rules of the United Nations and general conditions of contracts".

1. Host country regulations

62. Section 7 of Article III of the Agreement between the United Nations and the United States of America regarding the headquarters of the United Nations inter alia states that: "Except as otherwise provided in this agreement or in the General Convention, the federal, state and local law of the United States shall apply within the headquarters district."

63. In compliance with the above agreement, the Office of CMP applies all Host Country regulations regarding asbestos abatement and voluntarily applies the New York City Building Code. This requires the use of licensed contractors for asbestos removal, electrical, mechanical and plumbing trades to ensure the safety of staff, delegates and visitors as well as emergency response officers such as police and firefighters. Although the legal framework does not expressly forbid the United Nations from bringing overseas contractors to work on the project, there are practical difficulties that make this unlikely. This is amplified below.

2. Initiatives by Skanska and United Nations departments

64. Skanska, like all major construction management companies in New York, is a union affiliated company and has to employ unionized labour on its projects. Skanska has negotiated a Project Labour Agreement with the unions that prohibits unions from striking or organizing picket lines in front of the United Nations in the event the United Nations directly employs non-unionized labour. According to Skanska, it would complete its work and vacate the area if the United Nations elects to use directly contracted non-unionized workers, including workers from overseas.

65. OIOS noted the following efforts to communicate procurement opportunities regarding the CMP:

- The Office of CMP in cooperation with the Procurement Division has communicated to Member States through Notes Verbale on the upcoming procurement exercises for large purchases.
- The Office of the CMP, the Procurement Division and Skanska have also provided presentations to Permanent Missions and consulates of countries that requested information on CMP procurement opportunities.
- Skanska has made efforts to make the procurement of trade contracts transparent by posting all expressions of interest on Skanska's project website. The websites of the Procurement Division and the Office of CMP provide links to the project website.
- The Procurement Division also undertakes outreach efforts in the form of business seminars to facilitate the registration of vendors from developing countries and countries with economies in transition. Since 2008, the Procurement Division has conducted around 36 seminars in countries with developing economies and economies in transition. Business opportunities and requirements specific to the CMP were highlighted during these seminars.

66. OIOS enquiries have led to the conclusion that the Office of CMP, the Procurement Division and Skanska are making concerted efforts to bring in international vendors for bulk purchases. These efforts have included:

- Skanska's website, in soliciting expressions of interest for the supply of bulk purchases, contains a statement that "all materials provided in response to this solicitation must meet the applicable building codes, reference standards and technical specification requirements. International vendors, especially from developing countries and countries with economies in transition, are strongly encouraged to participate."
- Bids for bulk purchases were under various stages of procurement but no contract award took place.

67. Under the Coordination Agreement with the United Nations, Skanska is required to create opportunities for procurement from countries with developing economies and countries with economies in transition. Skanska also requires the trade contractors to report bi-monthly the country of origin of each product installed as part of the works. As of December 2010, Skanska has reported that the total dollar value of purchases from Brazil, China, India, Mexico, Malaysia, Philippines, Thailand and Vietnam as country of origin is \$10.8 million and the percentage of international purchases is 4.5 percent of total purchases.

3. Environmentally friendly and sustainable procurement

68. The General Assembly resolution 63/270 stressed that ‘until a decision is taken by the General Assembly on the issue of environmentally friendly and sustainable procurement, the Secretary-General shall not use any criteria that unduly restrict the ability of vendors to participate in procurement processes owing to environmental friendliness or sustainability requirements’.

69. OIOS’ review of invitations to submit expressions of interest concluded that there have been no restrictions in this regard.

E. Change orders and contract amendments

1. Delegation of authority to the Procurement Division

70. As of 9 November 2007, the ASG, Controller granted the delegation of authority to execute contract amendments related to CMP to the Chief of the Procurement Service (currently Director of Procurement Division) because of the time critical nature and volume of CMP related procurement. The delegation was granted on an experimental basis for a period of six months in the amount of \$2.5 million and was subject to *ex-post facto* review by the Headquarters Committee on Contracts (HCC). However, the Chairman of HCC in his note dated 22 January 2008 expressed concern over the application of the Financial Rule 105.13 with regard to this procedure that states “Where the advice of a review committee is required, no final action leading to the award of amendment of a procurement contract may be taken before such advice is received.”

71. On 3 March 2008, ASG, Controller extended this delegation to the Director of Procurement Division until the completion of CMP and increased it to \$5 million. The *ex-post facto* review by HCC has been waived.

2. Delegation of authority to the Office of CMP

72. As of January 2009, ASG OCSS also granted a delegation of authority to the Executive Director, Office of CMP to approve change orders. That delegation of authority was limited to ten per cent of GMP contract value with a single change order not to exceed \$5 million. A key control specified by the ASG, OCSS for his delegation was that all change orders over \$200,000 by the CMP Executive Director shall also be reviewed by the *ex-post facto* committee (to be known as the Post Award Review Committee) established for this purpose.

3. Post Award Review Committee

73. On 30 October 2009, the ASG, OCSS established a Post Award Review Committee (PARC). The committee was expected to commence operations in November 2009 and convene meetings each month to review change orders and contract amendments executed in the preceding month. However, PARC did not convene with its current composition until April 2010 as the previously appointed Chairperson resigned. The new members of the committee were never formally appointed.

74. The terms of reference were prepared and submitted to ASG, OCSS for approval in May 2010. According to the terms of reference, PARC conducts the technical review of change orders and compliance review of contract amendments to establish whether procurement actions were taken in accordance with the Financial Regulations and Rules, the Procurement Manual and other relevant UN procurement policies. Following the completion of its reviews, PARC assesses the appropriateness of procedures followed. In cases where PARC deems that the procedures were not followed properly, the committee makes recommendations to the ASG, OCSS for improvements.

75. The Terms of Reference for PARC established that all change orders and contract amendments greater than \$500,000 will be reviewed. However, the delegation of authority for change orders from ASG, OCSS to the Executive Director, CMP required that all change orders and contract amendments exceeding \$200,000 shall be reviewed. This inconsistency needs to be addressed.

Recommendation 4

(4) The Assistant Secretary-General, Office of Central Support Services should ensure consistency between the terms of reference of the Post Award Review Committee which establishes that all change orders and contract amendments greater than \$500,000 will be reviewed, and the delegation of authority to the Executive Director of CMP which sets the financial threshold at \$200,000.

76. *OCSS accepted recommendation 4 and stated that the delegation of authority to the Executive Director of CMP will be revised to request that all change orders authorized by the Executive Director of the CMP exceeding \$500,000 shall be reviewed by PARC.* Recommendation 4 remains open pending receipt of the revised delegation of authority.

77. Since April 2010, PARC held several meetings with the Office of CMP and the Procurement Division to understand operations and procedures. PARC held two meetings on 1 August and 3 December in 2010 to review several contract amendments. The minutes of the meetings were submitted to ASG, OCSS. There were two additional meetings in 2011.

78. As of December 2010, there were 199 contract amendments with a value over \$115 million issued to Skanska that fall under the purview of PARC. Only

12 contract amendments valued at \$25.4 million had been reviewed by PARC. There were also 29 contract amendments over \$500,000 valued at \$48 million issued to designers and engineers and other consultants that had not been reviewed by PARC. OIOS considers an effective *ex-post facto* review of change orders and contract amendments as being an important control and is concerned with the slow progress of review by PARC, caused initially by a 10 month delay in its establishment by ASG, OCSS and then further 5 months before it conducted its first meeting. Also, members of PARC, with one exception, were not familiar with the operations of CMP and it took time for the committee to establish a mode of operations. The committee members also have full time responsibilities in their respective departments. The committee is supported by a Secretary on a part time basis. The Chairman of the committee stated that it will meet once a month to review five contract amendments and could potentially increase the number of meetings to two per month to review ten contract amendments.

79. OIOS is of the opinion that the backlog of cases and their high value as well as limited staff resources of the committee may prevent PARC from clearing the backlog and keeping up with new cases.

80. OIOS concluded that the slow review process contributes to a lack of lessons learned for current and future transactions and has not been an effective control.

Recommendation 5

(5) The Assistant Secretary-General, Office of Central Support Services should review current arrangements pertaining to the Post Award Review Committee (PARC) and its work plan in light of the large backlog of cases and lack of adequate resources to support the PARC.

81. OCSS accepted recommendation 5 and stated that PARC plans to increase the frequency of meetings to review change orders and contract amendments. OCSS will request the Office of CMP to provide funding to improve Procurement Division's ability to support PARC. Recommendation 5 remains open pending confirmation that changes to current arrangements pertaining to PARC's ability to clear the backlog of cases had been made.

4. The need for effective change management and the procedures for reviewing change orders and contract amendments

82. Change orders are an integral part of any construction project and represent changes to scope and contract price. Skanska has entered into over 300 separate contracts with trade contractors who undertake the construction work. Most of these contracts will be subject to change orders due to: (a) scope changes; (b) architects and engineers' requirements; (c) field and unforeseen conditions; and (d) Skanska's requests. Change orders present risks to the United Nations if associated controls are not adequate.

83. Article 5 of the GMP contract stipulates that the United Nations may make changes by altering, adding or deducting from the work and the GMP shall be adjusted accordingly. Each change order requires prior written approval of the United Nations.

84. Change orders are confined to scope changes of the contract. Any changes in the general terms of the contract, such as a change in payment terms, insurance requirements, responsibilities and liabilities will require review and action by the Procurement Division through a contract amendment using the established procedures. Contract amendments with a value up to \$5 million must be reviewed and authorized by the Director of the Procurement Division. If a contract amendment exceeds \$5 million, it is referred to the HCC.

85. Change orders that increase the value of a GMP contract can be authorized by the Executive Director of the CMP subject to financial limits. Such change orders are funded from the CMP controlled contingency reviewed by the HCC and approved by the ASG, OCSS.

86. Once the need for change is identified, Skanska issues a written "Change Order Request" when the cost of change order could be determined or "Change Order Value – value to be determined" when the work is urgent in nature and the cost can not be determined at the early stage. Upon the review of the Change Order Value, the Executive Director signs it authorizing Skanska to proceed with the work. However, at this point the review continues to confirm that the work identified in the Change Order Value represents a real change and had not already been included in the base scope of the GMP contract.

87. Once Skanska gathers the documentary support for the cost estimate, it submits the Change Order Request to the Office of CMP that further distributes it to the cost manager (consultant programme manager), and the project manager (the Office of CMP or G&T). The cost manager requires clearances from the architects and engineers, as well as the project manager to confirm that the change is an addition or reduction to the GMP contracted scope of works and recalculates the cost, checking unit price, time and material costs and quotes from the trade contractors. After a change order is cleared by the cost manager, architects and engineers, and project managers, it is further reviewed by the CMP finance officer who determines whether the change order will be executed under the CMP Executive Director's or Procurement Division's delegation of authority. The Director of Construction also reviews the change order before it is approved.

88. As of March 2011 the following change orders have been recorded by the Office of CMP. Table 2 shows the percentage of change orders to the value of GMP contracts.

Table 2: Percentage of change orders to the value of GMP contracts

Description	Contract amount (\$)	Change orders and contract amendments (\$)	% of change orders to the value of GMP
Basement Package 2	176,444,599	39,445,081	22
North Lawn Conference Building	133,550,436	46,225,440	35
305 E 46 Street	22,220,151	3,253,361	15
Contract B-3B Swing space Package 1	12,645,161	578,846	5
United Nations Federal Credit Union	8,588,900	816,040	10
Curtain wall	128,337,747	1,864,458	1
380 Madison Avenue	34,033,002	15,691,763	46
Furniture for swing spaces	13,744,754	5,316,139	39
Hoist	20,934,300	769,344	4
Secretariat	206,966,117	1,871,002	0.9
Total	757,465,167	115,831,476	15

89. OIOS inquired why change orders represented such a high percentage of CMP costs. (OIOS analyzed the reasons for the high percentage of change orders for North Lawn Conference Building, 380 Madison Avenue, and 305 E 46 Street in its audit report on CMP change orders and associated processes (AC2009/514/03, dated 8 April 2010)). The Office of CMP explained that the high percentage of change orders for Basement Package 2 was due to scope reallocation from Basement Package 3. The design documentation and cost estimation for Basement Package 3 was under review at the time of the audit. The Office of CMP expected that the GMP proposal for Basement Package 3 will be submitted by Skanska in June 2011 and would undergo the usual review process. However, due to schedule and sequencing requirements some of the tasks from Basement Package 3 have to be completed now. Therefore, change orders totaling \$17,072,683 from Basement Package 3 were reallocated under change orders in Basement Package 2. Change orders pertaining to Basement Package 3 in the amount of \$23,821,830 were reviewed and recommended for approval by the HCC.

90. Additional furniture for swing spaces was needed because departments were moving more people than initially planned and user requirements increased for storage and seating. The past changes related to furniture support the need to finalize a restacking plan at the earliest possible stage before the Secretariat Building is reoccupied, so that such changes are minimized in the future. Further consideration of this is included in the current year's internal audit workplan.

5. OIOS examination of change orders

91. OIOS reviewed all change orders over \$500,000 that were not previously covered by an OIOS audit report on CMP change orders and associated processes (AC2009/514/03 dated 8 April 2010). Annex 2 shows the list of change orders examined by OIOS.

92. In addition, OIOS tested selected sample of change orders over \$200,000 listed in Annex 2.

93. OIOS compared a change order log maintained by Skanska and the change orders recorded by the Office of CMP. There is a difference of \$13.8 million that is attributed to time difference between recordings by the Office of CMP and change orders funded from associated costs by the Office of Information and Communication Technology (OICT), Department of Safety and Security and Office of Central Support Services and Facilities Management Service (FMS). See Annex 2 for the list of change orders examined by OIOS.

94. The change order for electrical conduits in Basement Package 2 was supposed to be funded by OICT, however by mistake a requisition was raised by the Office of CMP. The Office of CMP corrected it and settled the issue with OICT.

6. Summary of audit results

95. It took the Office of CMP between 29 and 174 days to approve the change orders under review and the time taken averaged 70 days. This was because the change order was checked and passed by multiple parties including architects and engineers, estimators, cost managers and project managers. Long approval times may negatively affect trade contractors' cash flow as the change order cannot be paid before it is approved. OIOS, in its report on CMP change orders and associated processes (AC2009/514/03 dated 8 April 2010) recommended the Office of CMP to set realistic targets for review and approval of change orders and make every effort to reduce approval times. OIOS reiterates this recommendation.

96. Over 70 per cent of change orders were due to owner (i.e. United Nations) requested scope changes. The reasons for owner requested change orders were not sufficiently explained. The change order request often cites design changes and detailed technical explanations but the originator of the change and the circumstances that led to it were not always explained. OIOS requested the Office of CMP to provide the list of change orders initiated by user departments with costs of change in design and construction, but this was not forthcoming. Although the change order review process had internal controls for approval of individual change orders, the fundamental question of why change occurs and who is accountable could not be answered. OIOS is concerned with the high percentage of change orders on some contracts.

Recommendation 6

(6) The Office of CMP should ensure that change orders are justified and their origins identified clearly before they are approved. The Office of CMP should also keep a summary of all change orders and the reasons for them in order to provide management information and enable appropriate actions in cases where changes are caused by

user departments, delays in designs, mistakes by architects and engineers, or field conditions.

97. *The Office of CMP accepted recommendation 6 and stated that it will be continuously implemented. Recommendation 6 remains open pending receipt of the Office of CMP's analysis of change orders by user departments with reasons for the requested scope changes.*

98. OIOS review showed that sampled change orders had been reviewed by architects and engineers, estimators or cost managers from G&T and by project managers before they were recommended for approval by the Director of Construction and subsequently approved by the Executive Director, CMP in accordance with established procedures.

99. Change orders were often contracted to the same trade contractors who were already employed on that GMP contract for logistical reasons or because the unit price was stipulated in Exhibit C of the trade contract. The competitiveness of Exhibit C of the trade contract was not formally evaluated at the time of initial bidding as the trade contract was evaluated based on a lump sum basis. Therefore, there was limited assurance that unit prices stipulated under the trade contract were competitive. Skanska explained that it negotiated the rates to ensure competitiveness and that G&T reviewed them as well. However, this was not formally documented in the leveling summaries or for Skanska's recommendation of award to the trade contractor. *The Office of CMP commented that it instigated a discipline of reviewing all unit rates and hourly rates at the time of award to ensure they are competitive. The rates are checked against other bidders in the particular trade package and other similar trade packages on other projects in the CMP.* OIOS is of the opinion that Exhibit C rates should be formally evaluated and documented to provide assurance that they were competitive at the time of bidding.

100. In cases where there were no unit or time and material prices stipulated in the trade contract, G&T used comparable market rates from other projects to ensure that the prices quoted by a trade contractor are reasonable. Although OIOS obtained evidence that G&T conducted a review of the change order costs, it could not always obtain the source of the information. However, the review of sampled change orders showed that the value of change orders submitted by Skanska was reduced by \$1,066,875 after the review by G&T and the Office of CMP. Also, in cases when the quote for change orders from the trade contractor was deemed too high, it was competitively bid. *The Office of CMP stated that when there are no applicable rates within the existing contract, G&T reviews other similar contracts within the CMP project or relies on G&T estimators for applicable unit rates from other projects in New York City.*

Recommendation 7

(7) The Office of CMP should instruct Skanska to provide an analysis of unit and time and material rates (Exhibit C of the trade contract) at the time of

recommendation for award of trade contracts to ensure the agreed rates for change orders were competitive.

101. *The Office of CMP accepted recommendation 7 and stated that it will be implemented by 31 July 2011.* Recommendation 7 remains open pending the Office of CMP's confirmation that Skanska was instructed to provide an analysis of unit and time and material rates at the time of recommendation for award.

102. During the review of the change orders conducted on a time and material basis, OIOS obtained breakdowns for labour rates which showed that apart from the wage, the United Nations pays benefits and insurance on the labour portion of change orders. OIOS was informed that Federal and State Unemployment Insurance (FUI and SUI) of 7.65 and 9.50 percent is applied on the first \$7,000 and \$8,000 earned by trade contractors. This means that this cap can be fully utilized in a couple of months and insurance should be excluded from the calculation for the remaining part of the year. G&T estimated the potential financial savings at \$3.8 million for the entire project. Skanska proposed to bid labour rates competitively from trade contractors to ensure that the cap on FUI and SUI is not exceeded. OIOS concurs with this proposal as long as Skanska can demonstrate that the competitive bid takes into account the reduction in FUI and SUI.

103. The Procurement Division is not involved in the process of review and approval of change orders and its role is limited to issuing a contract amendment once a change order has been approved by the Executive Director of CMP. The Procurement Division indicated that it can add little value in review of the change orders as they rely on architects and engineers to confirm change to scope and cost managers to confirm reasonableness of costs. The Procurement Division indicated that their involvement would add extra time to the review process and they are not skilled or staffed to conduct detailed checks that G&T is performing.

104. The change orders pertaining to swing space in Basement Package 2 were competitively bid. However, 'Special Procedures for the procurement of goods and services required to complete CMP' issued by the Procurement Division on 31 October 2008 were not fully observed during this process. This was the case because the Procurement Division attended bid openings and bid leveling meetings, but did not have an opportunity to comment on the recommendation for award of the change orders.

105. In OIOS' opinion, the Procurement Division should review recommendations for award of any new trade contract whether processed through change order or allowance usage request, and the 'Special Procedures for the procurement of goods and services required to complete CMP' should be followed in all cases when the contract is awarded to a new trade contractor.

Recommendation 8

(8) The Procurement Division should review recommendations for the award of all new trade contracts to

ensure best value for money in accordance with the ‘Special Procedures for the procurement of goods and services required to complete CMP’ irrespective of whether they are processed as an allowance usage or change orders.

106. *OCSS accepted recommendation 8 and stated that together with the Office of CMP it will modify the process to ensure that all trade contract awards are submitted to Procurement Division for review. Recommendation 8 remains open pending receipt of documentation from Procurement Division showing that it has been implemented.*

107. The project and G&T cost manager for Basement Package 2 GMP contract reviewed the need for allowances as the project progressed and reduced it by \$4,346,860 because they were not fully needed. OIOS considers this a good project management practice. However, according to the GMP contract the entire amount of insurance cost is billed by Skanska in the first invoice. All change orders that increase the value of the GMP contract also include insurance costs. However, the reduction in allowance did not reverse the insurance costs paid in the first invoice. OIOS estimates that over \$200,000 in insurance costs should have been reversed together with the reduction in allowances. *The Office of CMP commented that Article 10.15 of the GMP contract stipulates that fees and insurance costs will be recalculated when actual costs are finally determined at the completion of a GMP project.*

F. Allowances and contingencies

1. Allowances

108. According to the Article 10 of the GMP contracts, allowances are amounts, approved by the Office of CMP for a specific purpose, and are included in the value of the GMP. Allowances may be used when there is uncertainty with regard to the design, scope of works or specification at the time of GMP negotiations. If the cost of any item to which an allowance applies proves to be greater than the amount of the allowance, the GMP would be increased by the difference without Skanska adding any additional fee. Increases in GMP are covered by a change order. If the cost of any item to which an allowance applies proves to be less than the amount of the allowance, the GMP shall be decreased by the amount of the difference. Skanska must seek written approval from the Office of CMP before spending an allowance. Skanska issues an “Allowance Use Request” for review and approval. The Office of CMP, G&T, architects and engineers review the scope and cost of an allowance before it is authorized by the Executive Director of CMP.

109. OIOS reviewed \$42.6 million of allowances out of \$104 million of allowance usage approved. All allowances examined were correctly processed through the competitive bidding of trade contracts.

110. The procurement of the congress microphone and simultaneous interpretation systems funded from an allowance with cost of \$3,679,906 was not awarded to the lowest bidder because:

(a) The preferred company received the highest technical rank by user group and architects.

(b) The company demonstrated that they were best equipped to respond to the time constraints of the project.

(c) The company had the strongest corporate structure and an office in New York City.

111. OIOS reviewed the scoring table submitted by users, and technical evaluations by architects and engineers and their consultants and confirmed that the successful company had the highest scores.

2. Skanska's controlled contingencies

112. Article 10 of the GMP contracts stipulates that the GMP includes Skanska's controlled contingency in the amount of 3 per cent of the trade contract costs and general conditions. The contingency has been established to enable Skanska to be paid for costs that were not anticipated, costs not included in the cost of work or for changed market conditions, overtime and omissions. The United Nations reserves the right to pre-approve Skanska's use of contingency.

113. Skanska first submits a change order value request to get authorization to start the work and it is reviewed following the process for change order approval. Then, Skanska determines the source of funding either through a change order request that will raise the value of the GMP, or a contingency. If the change is funded through contingency, Skanska submits an Authorized Contingency Expenditure Request to the Office of CMP along with the supporting documents (quotes from contractors, invoices for materials, labour tickets). G&T, architects and engineers and the Director of Construction review the scope and cost of the contingency request before it is authorized by the Executive Director of CMP.

114. OIOS examined contingency usage of \$1,099,712 out of \$1,983,442 approved and determined that established procedures were complied with in all cases reviewed.

G. Contract risk management, monitoring and control

1. Weekly meetings

115. Various meetings are conducted each week to coordinate work between the Office of CMP, Skanska and G&T. There are also different stakeholders that are important to the success of the CMP, such as the Department of Safety and Security, the Office of Information and Communications Technology, the Office of Legal Affairs, the Procurement Division, the Facilities Management Service and others. OIOS reviewed the weekly schedule of meetings and concluded that all decision makers and stakeholders meet regularly to discuss and coordinate issues. OIOS reviewed minutes of construction coordination meetings for the

curtain wall and the Secretariat building and noted that issues have been assigned for action and followed up during the next meeting.

2. Risk management

116. G&T drafted an annual CMP risk assessment in October 2010, and a risk register that gives probabilities, values and impact assessments. The Office of CMP's Chief, Administration and Communications facilitates regular reviews of the risks, and has assigned individual risks to risk owners. Risks are kept under review as the CMP progresses and if necessary re-categorised as low, medium or high risks. Furthermore, a summary of risks and mitigation actions is provided by G&T as part of the monthly status reports. OIOS review of the risk assessment conducted by G&T noted a risk related to trade contractors going out of business due to the economic downturn and potential cash flow problems. The Office of CMP and Skanska keep this risk under review and instituted the mitigating control of paying invoices twice a month based on work completed for some trade contractors to ensure their liquidity.

117. OIOS conducted a fraud risk assessment of the procurement process and concluded that the existing controls are adequate to detect fraud except in the event of collusion among the parties. No such cases were detected.

3. Outside agencies

118. According to the Office of CMP, the CMP complies with the City of New York Building Code on a voluntary basis. All drawings are submitted to the New York City Department of Buildings for review. Officials from the Department of Buildings visit the site regularly. The Office of CMP also coordinates with the United States Environmental Protection Agency, the New York City Fire Department, Police Department and Department of Transportation.

4. Quality control by Skanska

119. Skanska employs quality control/assurance staff on site and they perform reviews in accordance with Skanska's Quality Manual. Skanska maintains a quality assurance and quality control log as a way of monitoring issues raised by project managers and architects. OIOS reviewed the quality assurance and quality control log for the Secretariat and curtain wall as of 14 March 2011. Tasks listed in the log were dated with reference to the source that raised the quality issue and responsibility assigned. Implementation updates were provided and status (open or closed) noted. The tasks are taken off from the list once architects and engineers confirm that they have been addressed.

5. Quality control by the consultant architects/engineers

120. As part of contract administration, architects and engineers are required to conduct weekly field observations to ensure that work on site is progressing in accordance with construction documentation and specifications. OIOS examined field observations reports conducted by two design firms for the curtain wall and

the Secretariat building and concluded that non conformance to design and specifications have been raised and photographed for Skanska's action. The issues identified by architects and engineers are followed up through Quality Assurance Quality Control log maintained by Skanska. OIOS reviewed the log for curtain wall and Secretariat dated 14 March 2011 and confirmed that issues are logged in, actions described and assigned to the responsible parties and status of implementation is provided.

121. The United Nations signed an additional contract for \$275,195 with architects and engineers for special inspections of the curtain wall. These inspections included factory visits, and additional site visits for curtain wall installation and field testing.

6. Quality control by the Office of CMP

122. In November 2008, the Office of CMP contracted with a commissioning agent to perform independent testing of heating, ventilation and air conditioning systems, building automation systems, plumbing and fire protection systems, electrical systems, vertical transportations and other systems in the United Nations campus. The contract will cover the duration of the CMP and was approved for an amount not to exceed \$2,371,675. The commissioning agent has tested and submitted reports on the North Lawn Conference building for actions by Skanska.

123. The project managers from the Office of CMP and G&T also visit the construction sites regularly to observe progress and quality of work.

124. Based on the review of documents and discussions with members of the project team, OIOS assessed that the processes for achieving the required level of quality are effective.

7. External and internal audit

125. General Assembly resolution 57/292 "stressed the importance of oversight with respect to development and implementation of the CMP, and requested the Board of Auditors and all other relevant oversight bodies to initiate immediate oversight activities and to report annually thereon to the General Assembly".

126. OIOS has had two professionally qualified auditors employed full time on the CMP since January 2008. OIOS issued 14 reports including reports on CMP construction manager's procurement process (AC2009/514/02), CMP management of trade contracts (AC2008/514/07) and CMP change orders and associated processes (AC2009/514/03). The implementation rate of recommendations has been high and OIOS follows up on the status of outstanding recommendations on a semi-annual basis.

127. The Board of Auditors issues annual reports on the CMP. The Board's next audit report on the CMP and status of implementation of its recommendations is due in summer 2011.

V. ACKNOWLEDGEMENT

128. We wish to express our appreciation to the Management and staff of the Office of CMP, the Procurement Division, Skanska and the consultant programme manager for the assistance and cooperation extended to the auditors during this assignment.

STATUS OF AUDIT RECOMMENDATIONS

Recom. no.	Recommendation	Risk category	Risk rating	C/O ¹	Actions needed to close recommendation	Implementation date ²
1	The Office of CMP should review and approve bidders lists without delay to prevent situations when bidding has reached advanced stages before bidders' lists are approved.	Compliance	Moderate	C		Implemented
2	The Procurement Division should instruct Skanska to: (i) maintain proof of transmission of invitations to bid; (ii) document and maintain leveling summaries; (iii) document reasons for dropping or adding a trade contractor in the next round of bidding; and (iv) file written approvals of the Procurement Division to solicit best and final offers from a list of trade contractors to promote transparency in the bidding process; and	Compliance	Moderate	O	Issuance by the Procurement Division of an instruction to Skanska.	31 July 2011
3	The Procurement Division should improve oversight of the procurement process for trade contracts and ensure that: (i) trade contractors confirm receipt of invitations to bid; (ii) all qualified bidders are invited to next rounds of bidding; and (iii) no qualified bidder is eliminated from the competition without a valid documented reason.	Compliance	High	O	Receipt of documentation from the Procurement Division showing that the recommendation has been implemented.	31 July 2011
4	The Assistant Secretary-General, Office of Central Support Services should ensure consistency between the terms of	Compliance	Moderate	O	Receipt from OCSS the revised delegation of authority.	Implemented

Recom. no.	Recommendation	Risk category	Risk rating	C/O	Actions needed to close recommendation	Implementation date ²
5	reference of the Post Award Review Committee which establishes that all change orders and contract amendments greater than \$500,000 will be reviewed, and the delegation of authority to the Executive Director of CMP which sets the financial threshold at \$200,000. The Assistant Secretary-General, Office of Central Support Services should review current arrangements pertaining to the Post Award Review Committee and its work plan in light of the large backlog of cases and lack of adequate resources to support PARC.	Operational	Moderate	O	Receipt of confirmation that changes to current arrangements pertaining to PARC's ability to clear the backlog of cases had been made.	31 July 2011
6	The Office of CMP should ensure that change orders are justified and their origins identified clearly before they are approved. The Office of CMP should also keep a summary of all change orders and the reasons for them in order to provide management information and enable appropriate actions in cases where changes are caused by user departments, delays in designs, mistakes by architects and engineers, or field conditions.	Operational	High	O	Receipt of CMP's analysis of change orders by user departments with reasons for the requested scope changes.	Not provided
7	The Office of CMP should instruct Skanska to provide an analysis of unit and time and material rates (Exhibit C of the trade contract) at the time of recommendation for award of trade contracts to ensure the agreed rates for change orders were competitive.	Operational	Moderate	O	Receipt of CMP's confirmation that Skanska was instructed to provide an analysis of unit and time and material rates at the time of recommendation for award.	31 July 2011
8	The Procurement Division should review	Compliance	Moderate	O	Receipt of documentation from	31 July 2011

Recom. no.	Recommendation	Risk category	Risk rating	C/ O ¹	Actions needed to close recommendation	Implementation date ²
	recommendations for the award of all new trade contracts to ensure best value for money in accordance with the 'Special Procedures for the procurement of goods and services required to complete CMP' irrespective of whether they are processed as an allowance usage or change orders.				Procurement Division showing that the recommendation has been implemented.	

1. C = closed, O = open

2. Date provided by the Office of CMP and the Office of Central Support Services in response to recommendations.

Change orders examined by OIOS

Sample of change orders over \$500,000 examined by OIOS

Change order reference and description	Value (\$)
Basement package 2:	
Change orders pertaining to Package 3	17,062,883
Additional electrical work due to DGACM moving more people and equipment than originally planned	3,506,214
Additional electrical work due to DGACM moving more people and equipment than originally planned	2,083,856
Temporary telephone service	802,858
Temporary Power for the Tech Center	737,432
Reduction in Allowance	(4,346,860)
Total Basement Pkg 2 subtotal	19,846,383
NLCB:	
Site Development for NLCB per Bulletin #3	4,026,203
Site Utility Trenching and Storm Drainage	2,394,334
Electrical Scope	1,178,296
General Carpentry/Ceiling/Drywall Changes - Bulletin #2	729,577
Post 97 Security System	583,925
Con Edison Vault waterproofing and masonry work	539,200
Total NLCB subtotal	9,451,535
305 E 46 Street: Removal of Security Escrow Account and 2 to 5 year Service and Maintenance Agreement	(471,007)
UNFCU:	
11th Floor fit out	1,674,604
11th Floor- Electrical	829,975
Total UNFCU subtotal	2,504,579
Curtain wall: Tests Lot B Wall Types F & J	750,336
Secretariat-Hazardous material removal	1,748,600

Sample of change orders over \$200,000 examined by OIOS

Change order reference and description	Value (\$)
Curtain wall:	
Window Washing Equipment for Secretariat	239,433
Revised Curtain wall Anchor Detail for Secretariat	419,488
Delete performance mock-up	(375,169)
Removal of Mechanical Buffering Process to Interior Curtainwall of Secretariat	(203,896)
Basement Package 2:	
Permanent Power Connections	238,685
Revised Drawings for Bulletin 1 and 2	291,958
Hoist:	
East Hoist Pit Redesign	(308,175)
Secretariat:	
Lead abatement of steel beams	251,942
Millwork salvage	239,480
Masonry patchwork	339,481

Sample of change orders paid by other departments

Change order reference and description	Reasons for change order	Value (\$)
UNFCU	Fit out of the 11 th floor funded by Facilities Management Service. FMS funded \$1,561,900;	1,674,604
Basement Package 2	Additional Hot Air Control System units. Funded by OICT	1,024,465
Basement Package 2	Electrical conduits funded by OICT. OICT was supposed to fund \$481,859, but raised a requisition only for \$57,748.	539,607
North Lawn Conference Building	Internet Protocol Television System to provide transmission of UN television channels to NLCB and off campus swing locations funded by FMS.	532,485