

Report No. 48 of the Director of Audit — Chapter 2

ADMINISTRATION OF HONG KONG APPLIED SCIENCE AND TECHNOLOGY RESEARCH INSTITUTE COMPANY LIMITED

Summary

1. In his 1997 Policy Address, the Chief Executive set forth his vision of making Hong Kong an innovation centre for South China and the region. In January 2000, the Government incorporated a limited company, the Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI), under the purview of the Innovation and Technology Commission of the Commerce, Industry and Technology Bureau (CITB), to conduct research and development (R&D). The Audit Commission (Audit) has recently conducted a value for money audit on the administration of ASTRI. Audit has identified a number of areas where there is room for improvement.

Corporate governance

2. **Attendance of Directors.** Audit's analysis revealed that the attendance of some ASTRI's Directors at Board of Directors (Board)/Committee meetings was low. *Audit has recommended that ASTRI should monitor the attendance of Directors at Board/Committee meetings and consider taking action to improve their attendance.*

3. **Documentation of Committee proceedings.** The Finance and Administration Committee of ASTRI had not held any meeting between September 2004 and May 2005 and between December 2005 and June 2006. Discussion papers were circulated to Directors during these periods. However, ASTRI had not kept any documentation of Directors' comments and decisions in response to the papers circulated. *Audit has recommended that ASTRI should maintain documentation of Directors' comments and decisions when Board/Committee's business is carried out by circulation of papers.*

4. **Minutes of Board/Committee meetings.** Audit examination of the minutes of Board/Committee meetings held during the period 2004-05 to 2006-07 (up to September 2006) revealed that: (a) there were two cases where the confirmed meeting minutes contained inaccurate information; (b) the time taken by ASTRI to issue draft meeting minutes to Directors averaged 34 days; (c) no documentation was kept of Directors' comments on the draft minutes; and (d) votes taken at meetings had not been recorded. *Audit has recommended that ASTRI should: (a) ensure the accuracy of information recorded in minutes of Board/Committee meetings; (b) ensure that draft minutes*

for Board/Committee meetings are issued to Directors for comments as soon as possible and that Directors' comments are documented; and (c) provide information on the votes taken at Board/Committee meetings in the minutes of meeting.

Management of conflict of interest

5. **Register of Directors' Interests.** At the beginning of each year, ASTRI Directors are invited to report their pecuniary interests by completing a register of interest form. ASTRI informed Audit that the file of completed register of interest forms for the period April 2003 to August 2006 was lost. *Audit has recommended that ASTRI should investigate the reasons for the loss of the Directors' completed register of interest forms and take action to improve the record keeping system.*

6. **Signing of non-disclosure agreements.** In order to enhance the accountability and protect the integrity of ASTRI's projects, ASTRI's Board decided in 2001 that all Directors should sign a non-disclosure agreement (NDA) relating to individual projects. Audit examination revealed that of the 67 projects undertaken by ASTRI since December 2001, NDAs were signed by some Directors for 11 projects. Since December 2002, no Directors had signed any NDAs. *Audit has recommended that ASTRI should take action to ensure that NDAs are signed by all Directors for all projects undertaken by ASTRI.*

Remuneration and recruitment

7. **Pay structures.** In 2004, ASTRI engaged a consultant to review its pay levels and to align them with market practices. The consultant found that ASTRI's pay bands for its staff at Levels One to Five were 5% to 40% above market level. The Board decided to adjust ASTRI's pay bands to the market level with effect from October 2004. However, as at November 2006, 18 staff still received a salary higher than the maximum of their respective pay bands. *Audit has recommended that ASTRI should review those cases where staff are receiving salaries higher than the maximum of their respective pay bands and take action to revise their salaries where appropriate.*

8. **Staff recruitment.** Audit examination of 20 recruitment cases during the period April to October 2006 revealed that: (a) contrary to the approved guidelines, vacancies in four cases were not advertised in at least one local newspaper; (b) in three cases, ASTRI staff who referred candidates for recruitment were also members of the selection panel. There was no documentary evidence that these staff had informed the selection panel; (c) the selection panels did not include a member from the Human Resources Department as required by ASTRI's guidelines, and in six cases the selection panels comprised staff who were at a lower pay band than that of the post under recruitment; and (d) the requirement of inviting all qualified candidates for interview was not complied with in six cases. *Audit has recommended that ASTRI should: (a) ensure that all staff are recruited in accordance with the guidelines approved by the Board; (b) ensure an open and fair recruitment process; (c) review the composition of selection panels; and (d) ensure that all candidates (or at least five, if the number of qualified candidates is large) who fulfil the pre-requisites should be invited to attend a selection interview.*

9. **Performance-based variable payments.** ASTRI staff are entitled to a discretionary year-end performance-based variable payment, which is subject to a ceiling of 15% of their annual pay. Audit examination of the performance-based variable payments awarded for 2005-06 revealed that (a) there were inconsistencies in the percentage of payments awarded; and (b) there was no documentation recording how the payments were determined. *Audit has recommended that ASTRI should (a) establish a mechanism to determine the performance-based variable payments to staff based on performance rating; and (b) document the justifications for awarding a performance-based variable payment different from the established mechanism.*

10. **Annual salary adjustments.** ASTRI staff at Level Two and below are entitled to annual salary adjustment. ASTRI's guidelines stipulate that the annual salary adjustment for individual staff should be based on his performance rating and existing salary. Audit examination of the annual salary adjustments made for 2006-07 revealed that the actual salary adjustments made varied significantly and were not consistent with staff's performance ratings. *Audit has recommended that ASTRI should establish a mechanism to determine the annual salary adjustments for staff based on performance rating and seek approval for adjustments made which deviate from this mechanism.*

11. **Staff incentive payments.** In April 2004, ASTRI sold three full projects to an investor through a spinning-off exercise. With regard to the \$13 million retained by ASTRI as its share of profits, the Board decided that \$10 million would be set aside for a staff incentive scheme to reward the 23 staff who were involved in the projects. Audit noted that the basis for setting aside \$10 million for making the incentive payment had not been documented. *Audit has recommended that ASTRI should in future spinning-off cases document the basis for determining the amount of staff incentive payments and consider disclosing the staff incentive payments made.*

12. **Review of senior staff's remuneration package.** In 2004-05, ASTRI engaged a consultant to review the pay levels of its top three-tier executives and to align them with market practices. Audit noted that the remuneration package of the Chief Executive Officer (CEO) was not assessed by making reference to market practices. Similar reviews had not been carried out for the top three-tier executives for 2003-04 and 2005-06. Furthermore, the information provided by ASTRI on senior staff's remuneration package was much less than that provided by other public bodies. *Audit has recommended that ASTRI should: (a) make reference to market practices in assessing the remuneration packages for its top three-tier executives; and (b) consider disclosing publicly their remuneration packages.*

Project management

13. **Project planning.** At ASTRI, a project plan is documented in the project proposal. Audit examination of 18 project proposals revealed that (a) expected project income was estimated in only four projects; (b) risk analysis was not conducted; (c) the staff cost budget was not accurately stated in three proposals; and (d) the statement about the availability of similar equipment for sharing within ASTRI or with other Innovation and Technology Fund (ITF) recipient organisations was found in only one proposal. *Audit has recommended that ASTRI should (a) ensure that information about the commercialisation*

potential of projects is provided in the project proposal; (b) establish a risk management process as part of its project management system; (c) ensure that staff cost budget is accurately stated in the project proposal; and (d) remind project teams to check and document in the project proposal the availability of similar equipment for sharing within ASTRI or with other ITF recipient organisations.

14. **Project monitoring.** Up to December 2006, ASTRI had not put in place any computerised project management information system to record project information. Audit examination revealed that (a) project monthly progress reports were not always submitted in 2005-06 and 2006-07; (b) project monthly progress review meetings were not held in April, June and September to December 2006; (c) project annual audited accounts were always submitted late; (d) information about updated market conditions was not always provided in half-yearly project progress reports; (e) in cases where there was project slippage, information about the impact of the slippage and follow-up actions taken to make up for the slippage was not always provided; and (f) requests for extension of project period were often made towards the end of the original project period. *Audit has recommended that ASTRI should (a) consider implementing a computerised project management information system; (b) ensure that monthly progress reports are submitted and project monthly review meetings are held as scheduled; (c) ensure that project annual audited accounts are always submitted in accordance with the ITF funding guidelines; (d) remind project teams to provide, in the half-yearly progress reports, information about updated market conditions, project slippages and the corrective actions taken; and (e) ensure that in cases where extension of project period is required, approval should be sought as soon as possible.*

15. **Project evaluation.** Audit examination of 18 projects revealed that: (a) there was delay in the submission of final project reports, final project audited accounts and equipment lists; and (b) key information (such as customer feedback on the practical usefulness and benefits of project deliverables) was not always provided in the final project reports. *Audit has recommended that the Commissioner for Innovation and Technology should: (a) in conjunction with ASTRI, take measures to ensure that the reporting requirements laid down in the ITF funding guidelines are complied with in future projects; and (b) in respect of each full project, consider requesting ASTRI to provide key information in assessing and reporting the practical usefulness and benefits of the project deliverables to the relevant industry.*

16. **Industry contribution.** In order to demonstrate that projects undertaken would meet the needs of industry, R&D Centres, including ASTRI, would have to look for industry contribution to cover at least 10% of their project funding. Audit noted that: (a) there was no proper documentation to substantiate the contribution in kind received; and (b) income committed but not honoured was counted towards meeting the industry contribution requirement. *Audit has recommended that the Commissioner for Innovation and Technology should: (a) consider specifying in the funding guidelines the requirement for proper documentation to substantiate the contribution in kind received; and (b) determine whether committed payments not honoured by customers should be counted towards meeting the contribution requirement.*

Project cost control

17. **Control of project costs.** Audit noted that: (a) ASTRI had yet to set a target implementation date for the computerised manpower information system; (b) incorrect charging of project costs was found in 9 out of 18 project accounts examined; (c) project staff cost had been charged to the subvention account; and (d) there was no accounting policy regarding the charging of performance-based variable payments to the relevant project accounts and the subvention account. *Audit has recommended that ASTRI should: (a) take action to ensure that the computerised manpower management information system under development could be implemented as soon as practicable; (b) ensure that the ITF's funding guidelines are complied with; and (c) develop an accounting policy for charging performance-based variable payments made to R&D staff to relevant accounts.*

Administrative issues

18. **Entertainment expenses.** In 2005-06, ASTRI's entertainment expenses amounted to about \$277,000. Audit found that: (a) entertainment expenses incurred exceeded the annual budget by 32%; (b) the cost-per-head spending limits were exceeded in 9 of the 50 cases examined; and (c) in 7 cases, the guests entertained were significantly outnumbered by ASTRI staff. *Audit has recommended that ASTRI should: (a) remind its staff to, other than in exceptional circumstances, limit entertainment expenses within budget and observe the cost-per-head spending limits; and (b) ensure that the number of ASTRI staff participating at entertainment functions would not be excessive.*

19. **Overseas duty visits.** In 2005-06, ASTRI's project-related overseas duty visit expenses and non-project-related overseas duty visit expenses amounted to about \$3.1 million and \$2.2 million respectively. Based on selected samples, Audit noted that: (a) in 11 cases the staff concerned had not obtained prior approval for their overseas duty visits; (b) in 17 cases the applications for the overseas duty visits were not submitted at least 10 days in advance as required; (c) in two overseas trips, the staff concerned travelled by business class instead of economy class and; (d) the number of participants in two project-related overseas duty visits exceeded the limit of no more than one person for each project team. *Audit has recommended that ASTRI should: (a) ensure that prior approval is obtained for all overseas duty visits; (b) remind staff of the requirement that applications for overseas duty visits must be submitted at least ten days in advance; (c) ensure that staff undertaking overseas duty visits relating to ITF funded projects would travel by economy class; and (d) ensure compliance with the requirement for limiting the number of participants in project-related overseas duty visits to no more than one person from each project team.*

20. **Fung shui consultancy fees.** Audit noted that ASTRI had paid fees of about \$181,000 for the engagement of fung shui consultants to advise on the relocation of office and the office environment. It is uncommon to use public funds for such a purpose. ASTRI is a publicly-funded organisation performing applied science and technology research. *Audit has recommended that ASTRI should review whether the use of fung shui consultants should be continued, having regard to the nature of its work.*

21. **Low interest income.** Audit examination of ASTRI's annual accounts revealed that, despite the fact that ASTRI was maintaining a high level of cash and bank balance for the years 2003-04 to 2005-06, the annual interest income ASTRI received was low. *Audit has recommended that ASTRI should consider implementing measures to improve the rate of return on its surplus funds.*

Cost and achievements of ASTRI

22. **Cost of ASTRI's operations.** Audit analysis of ASTRI's operation cost for 2004-05 to 2006-07 (up to December 2006) revealed that ASTRI's administration cost, at 45% of the total cost, was high. *Audit has recommended that ASTRI should critically examine its administration cost and take action to contain such cost to a lower level.*

23. **Evaluation of ASTRI's performance.** The financial returns of the projects which had been sold were 341% for three projects and 25% for one project. The financial returns of the other 17 completed projects ranged from zero to 54%. Eleven of them had a financial return rate of 5% or less, and six had not filed any patent application. The CITB reported to the Panel on Commerce and Industry (CI Panel) of the Legislative Council (LegCo) in 2003 that ASTRI's performance might be evaluated in due course by yardsticks including the number of technology transfer activities, joint ventures or start-ups created, number of jobs created and income and equity holdings from licensing of the intellectual properties. However, no information had been reported to the LegCo CI Panel on the number of jobs created, income, joint-ventures or start-ups created from the application of ASTRI's technologies. *Audit has recommended that ASTRI should evaluate its performance by the yardsticks as reported to the LegCo CI Panel. Audit has recommended that the Commissioner for Innovation and Technology should consider reporting ASTRI's performance to the LegCo CI Panel at regular intervals.*

Response from the Administration and ASTRI

24. The Secretary for Commerce, Industry and Technology and the Commissioner for Innovation and Technology agree with the audit recommendations. The CEO, ASTRI has said that ASTRI will endeavour to implement the audit recommendations with the best efforts.

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