

HKSQ Seminar on the New ISO14001:2004 Standard

How to meet the new standard?

Presented by
Vincent Cheng

Apex Management Solutions Ltd.

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Contents

- ISO 14001:2004 Clause 4.1 to 4.6
- Summary of changes
- Impact
- How to fulfill the new/changed requirements
- Sample documents

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4.1 General Requirement (1)

- The organization shall establish, **document, implement, and** maintain **and continually improve** an environmental management system, **in accordance with** the requirements of **this International Standard and determine how it will fulfill these requirements** ~~which are described in the whole of clause 4.~~
- **The organization shall define and document the scope of its environmental management system.**



4.1 General Requirement (2)

- **Change summary**
 - **Continually improve the EMS**
 - **Determine how to fulfill the Standard's requirements**
 - **Define and document the scope of the EMS**
- **Impact**
 - **High**
- **How**
 - **Ensure O&T and management programmes can demonstrate continual improvement**
 - **Review the documentation to ensure all methods for achieving the Standard's requirements have been determined**
 - **Revise the system manual to include the scope of the EMS**



Scope of EMS

- Organizational boundary
 - whole organization, or
 - specific operating units
- Business activities (scope statement)
- Physical location
 - address, and
 - map to show the physical boundary

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Scope of EMS

- Examples
 - Architectural Services Department
 - Whole department
 - All locations
 - Business: To plan, design, procure and maintain community facilities
 - Electrical & Mechanical Services Department
 - Supplies Sub-division
 - Specific stores and office locations
 - Business: Design and provision of purchasing and warehousing services

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4.2 Environmental Policy (1)

- Top management shall define the organization's environmental policy and ensure that **within the defined scope of its environmental management system** it:
 - a) is appropriate to the nature, scale and environmental impacts of its activities, products ~~of~~ **and** services;
 - b) includes a commitment to continual improvement and prevention of pollution;
 - c) includes a commitment to comply with ~~relevant environmental legislation and regulations~~ **applicable legal requirements**; and with other requirements to which the organization subscribes **which relate to its environmental aspects**;

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4.2 Environmental Policy (2)

- d) provides the framework for setting and reviewing environmental objectives and targets;
- e) is documented, implemented and maintained ~~and communicated to all employees~~;
- **f) is communicated to all persons working for or on behalf of the organization; and**
- **fg) is available to the public.**

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4.2 Environmental Policy (3)

- Summary of changes
 - Policy to be within the defined scope of the EMS
 - Appropriate to “product and service”
 - Communicated to all persons working for or on behalf of the organization
- Impact
 - High
- How
 - Review and revise environmental policy and confine it to the scope of the EMS
 - Cover all part timers, contract staff and contractors in briefing of environmental policy (see also 4.4.2)

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4.3.1 Environmental Aspects (1)

- The organization shall establish, **implement** and maintain (a) procedure(s):
 - **a)** to identify the environmental aspects of its activities, products ~~or~~ **and** services **within the defined scope of the EMS** that it can control and ~~over which that~~ it can ~~be expected to have an~~ influence, **taking into account planned or new developments, new or modified activities, products and services; and**
 - **b)** ~~in order~~ to determine those ~~which~~ **aspects that** have or can have significant impacts on the environment (**i.e. significant environmental aspects**).

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4.3.1 Environmental Aspect (2)

- The organization *shall keep* document this information *and keep it* up-to-date.
- The organization shall ensure that the *significant environmental aspects related to these significant impacts* are *considered taken into account* in *setting its environmental objectives* establishing, implementing and maintaining its EMS.



4.3.1 Environmental Aspects (3)

- Summary of changes
 - From “product or services” to “product and services”
 - Include planned or new developments, new or modified activities, products and services
- Impact
 - High (for those only focus on either service or product, and project based and product designers e.g. trading companies, ODM)



4.3.1 Environmental Aspects (4)

- How
 - In-depth review of the coverage of the environmental aspects identified to ensure coverage of both products and services
 - Start the identification of environmental aspects early in the project definition stage or product development stage; update the environmental aspects as the project progresses



4.3.2 Legal and Other Requirements (1)

- The organization shall establish, **implement** and maintain
 - (a) procedure(s)
 - a) to identify and ~~have~~ access ~~to the applicable~~ legal **requirements** and other requirements to which the organization subscribes, ~~that are applicable~~ related to ~~its the~~ environmental aspects ~~of its activities, products or services~~; and
 - b) to determine how these requirements apply to its environmental aspects.



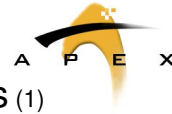
4.3.2 Legal and Other Requirements (2)

- The organization shall ensure that these applicable legal requirements and other requirements to which the organization subscribes are taken into account in establishing, implementing and maintaining its EMS



4.3.2 Legal and Other Requirements (3)

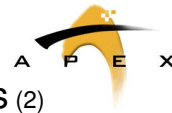
- Change summary
 - Determine how legal and other requirements apply to the environmental aspects
- Impact
 - High
- How
 - Review the Register of Legal and Other Requirements and insert remarks or pointers to indicate how the organization manages these applicable legal and other requirements



4.3.3 Objectives, Targets and Programmes (1)

- The organization shall establish, **implement** and maintain documented environmental objectives and targets, at each relevant function and level within the organization.
- The objectives and targets shall be **measurable where practicable and** consistent with the environmental policy, including the commitment to prevention of pollution, **compliance with applicable legal requirements and with other requirements to which the organization subscribes and continual improvement.**

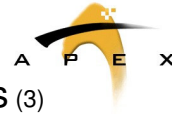
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4.3.3 Objectives, Targets and Programmes (2)

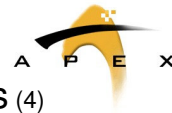
- When establishing and reviewing its objectives **and targets**, an organization shall ~~consider~~ **take into account** the legal **requirements** and other requirements **to which the organization subscribes and consider**, its significant environmental aspects, its technological options and its financial, operational and business requirements, and the views of interested parties.

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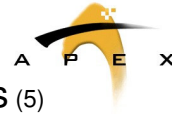
4.3.3 Objectives, Targets and Programmes (3)

- The organization shall establish, **implement** and maintain (a) programme(s) for achieving its objectives and targets.
Programme(s) shall include
 - a) designation of responsibility for achieving objectives and targets at each relevant function and level of the organization;
 - b) the means and time-frame by which they are to be achieved.



4.3.3 Objectives, Targets and Programmes (4)

- ~~If a project relates to new developments and new or modified activities, products or services, programme(s) shall be amended where relevant to ensure that environmental management applies to such projects.~~



4.3.3 Objectives, Targets and Programmes (5)

- Summary of changes
 - O&T to include compliance with applicable legal requirements and other requirements
 - O&T to demonstrate continual improvement
- Impact
 - High
- How
 - Review objectives and targets to ensure compliance with legal and other requirements and demonstrate continual improvement



4.4.1 Resources, roles, responsibility and authority (1)

- Management shall ~~provide~~ ensure the availability of resources essential to ~~the implementation and control of~~ establish, implement and improve the environmental management system. Resources include human resources and specialized skills, organizational infrastructure, technology and financial resources.
- Roles, responsibility and authorities shall be defined, documented and communicated in order to facilitate effective environmental management.



4.4.1 Resources, roles, responsibility and authority (2)

- The organization's top management shall appoint (a) specific management representative(s) who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for:
 - a) ensuring that **an EMS is** ~~requirements are~~ established, implemented and maintained in accordance with this International Standard;
 - b) reporting **to top management** on the performance of the environmental management system ~~to top management~~ for review, **including recommendations for improvement and as a basis for improvement of the EMS.**

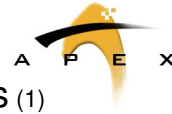
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4.4.1 Resources, roles, responsibility and authority (3)

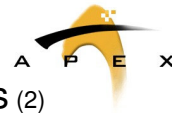
- **Summary of changes**
 - ensure resource availability rather than to provide
 - resources to improve the EMS
 - resources to include infrastructure
 - MR to recommend improvements
- **Impact**
 - medium
- **How**
 - MR to propose improvements to the EMS in the management review (e.g. improved objectives and targets, new management programme areas, etc.)

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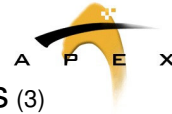
4.4.2 Competence, training and awareness (1)

- The organization shall ensure that ~~Personnel~~ any persons performing ~~the~~ tasks for it or on its behalf that have the potential to ~~which can~~ cause significant environmental impacts identified by the organization ~~shall be~~ is (are) competent on the basis of appropriate education, training ~~and~~ or experience and retain associated records.



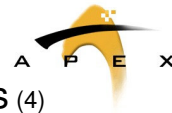
4.4.2 Competence, training and awareness (2)

- The organization shall identify training needs associated with its environmental aspects and its EMS. It shall provide training or take other action to meet these needs and retain associated records ~~require that all personnel whose work may create a significant impact upon the environment, have received appropriate training.~~



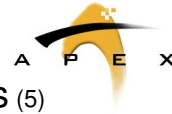
4.4.2 Competence, training and awareness (3)

- ~~It~~The organization shall establish, implement and maintain procedures to ~~make its employees or members at each relevant function and level~~ ensure persons working for it or on its behalf are aware of:



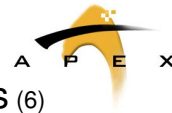
4.4.2 Competence, training and awareness (4)

- a) the importance of ~~conformance~~ conformity with the environmental policy and procedures and with the requirements of the EMS;
- b) the significant environmental ~~impacts~~ aspects and related, actual or potential impact, ~~of associated with~~ their work ~~activities~~ and the environmental benefits of improved personal performance;



4.4.2 Competence, training and awareness (5)

- c) their roles and responsibilities in achieving *conformance conformity* with the ~~environmental policy and procedures and with the~~ requirements of the environmental management system, *including emergency preparedness and response requirements;*
- d) the potential consequences of departure from specified *operating* procedures.



4.4.2 Competence, training and awareness (6)

- Summary of changes
 - Training to be extended to persons working for or on the organization's behalf
- Impact
 - High
- How
 - Review training coverage and include all part timers, contract staff and contractors
 - Include those persons in the orientation training
 - Train up contractors to train themselves



4.4.3 Communication ⁽¹⁾

- With regard to its environmental aspects and environmental management system, the organization shall establish, **implement** and maintain procedures for:
 - a) internal communication between the various levels and functions of the organization;
 - b) receiving, documenting and responding to relevant communication from external interested parties.



4.4.3 Communication ⁽²⁾

- The organization shall ~~consider processes for external communication~~ **decide whether to communicate externally about** ~~on~~ its significant environmental aspects and ~~record~~ **document** its decision. **If the decision is to communicate, the organization shall establish and implement methods for this external communication.**



4.4.3 Communication (3)

- Change summary
 - document the decision on communication of SEAs to external parties; and
 - Establish methods for the communication
- Impact
 - insignificant (if decision is no)
 - medium (if decision is yes)
- How
 - Record the decision (process not required)
 - Establish and implement communication methods (e.g. annual environmental report, regular update of environmental performance in web site, etc.)



4.4.4 Documentation (1)

- ~~The organization shall establish and maintain information, in paper or electronic form, to~~ The EMS documentation shall include:
 - a) the environmental policy, objectives and targets;
 - b) description of scope of the EMS;
 - c) ~~describe the core elements of the management system and their interaction~~ description of the main elements of the EMS and their interaction and ~~provide direction~~ reference to related documents;



4.4.4 Documentation (2)

- d) documents, including records, required by this International standards; and
- e) documents, including records, required by the organisation to be necessary to ensure the effective planning, operation and control of processes that relate to its significant environmental aspects



4.4.4 Documentation (3)

- Change summary
 - Clarification of requirements only
 - Scope statement
- Impact
 - Insignificant
- How to comply
 - Include the scope of the EMS in the system manual or other documents



4.4.5 Control of Documents (1)

- Documents required by the EMS and by this International Standard shall be controlled. Records are a special type of document and shall be controlled in accordance with the requirements given in 4.5.4.
- The organization shall establish, implement and maintain (a) procedures ~~for controlling all documents required by this International Standard to ensure that to:~~



4.4.5 Control of Documents (2)

- a) approve documents for adequacy prior to issue,
- b) ~~they are periodically reviewed, revised as necessary and approved for adequacy by authorized personnel~~ review and update as necessary and re-approve documents,
- c) ensure that changes and the current revision status of documents are identified,
- d) ~~they can be located; the current versions of relevant documents are available at all locations where operations essential to the effective functioning of the environmental management system are performed~~ ensure that relevant versions of applicable documents are available at points of use,



4.4.5 Control of Documents (3)

- ~~e) Documentation shall be legible, dated (with dates of revision) and readily identifiable, maintained in an orderly manner and retained for a specified period.~~ ensure that documents remain legible and readily identifiable,
- f) ensure that documents of external origin determined by the organization to be necessary for planning and operation of the EMS are identified and their distribution controlled, and



4.4.5 Control of Documents (4)

- ~~g) obsolete documents are promptly removed from all points of issue and points of use, or otherwise assured against unintended use; Any obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified.~~ prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.
- ~~Procedures and responsibilities shall be established and maintained concerning the creation and modification of the various types of document.~~



4.4.5 Control of Documents (5)

- Change summary
 - To match ISO9001
 - Requirement on control of external documents
- Impact
 - Medium
- How to comply
 - Revise the document control procedure to define the external documents that require distribution control (e.g. communications with external parties on the EMS)



4.4.6 Operation control (1)

- The organization shall identify those operations and activities that are associated with the identified significant environmental aspects *in-line consistent* with its policy, objectives and targets. *The organization shall plan these activities, including maintenance*, in order to ensure that they are carried out under specified conditions by:



4.4.6 Operation control (2)

- a) establishing, **implementing** and maintaining documented procedures to **cover control** situations where their absence could lead to deviations from the environmental policy and the objectives and targets;
- b) stipulating operating criteria in the procedures; and
- c) establishing, **implementing** and maintaining procedures related to the **identifiable identified** significant environmental aspects of goods and services used by the organization and communicating **relevant applicable** procedures and requirements to suppliers, **including and** contractors.



4.4.6 Operational Control (3)

- **Change summary**
 - **Wording change only**
 - **Require actual implementation which should have been met by all certified organizations**
- **Impact**
 - **Insignificant**
- **How to comply**
 - **Not applicable**



4.4.7 Emergency preparedness and response (1)

- The organization shall establish, **implement** and maintain procedures to identify potential ~~for and respond to accidents and~~ emergency situations **and potential accidents that can have, and for preventing and mitigating the environmental** impacts ~~that may be associated with them~~ on the environment and how it will **response to them.**
- The organization shall **respond to actual emergency situations and accidents and prevent or mitigate associated adverse environmental impacts.**



4.4.7 Emergency preparedness and response (2)

- The organization shall **periodically** review and ~~revise,~~ where necessary, **revise** its emergency preparedness and response procedures, in particular, after the occurrence of accidents or emergency situations.
- The organization shall also periodically test such procedures where practicable.



4.4.7 Emergency preparedness and response (3)

- Change summary
 - Wording change only
 - Require actual implementation which should have been met by all certified organizations
- Impact
 - Insignificant
- How to comply
 - Not applicable



4.5.1 Monitoring and measurement (1)

- The organization shall establish, **implement** and maintain documented procedure to monitor and measure, on a regular basis, the key characteristics of its operations ~~and activities~~ that can have a significant **environmental** impact ~~on the environment. This shall include the recording of information to track~~ **The procedures shall include the documenting of information to monitor** performance, ~~relevant~~ **applicable** operational controls and ~~conformance~~ **conformity** with the organization's environmental objectives and targets.



4.5.1 Monitoring and measurement (2)

- ~~Monitoring equipment shall be calibrated and maintained and records of these processes shall be retained according to the organization's procedures~~ The organization shall ensure that calibrated or verified monitoring and measurement equipment is used and maintained and shall retain associated records.



4.5.1 Monitoring and measurement (3)

- Change summary
 - Wording change only
 - Evaluation of compliance moved to a separate section
- Impact
 - Insignificant
- How to comply
 - Not applicable



4.5.2 Evaluation of compliance (1)

- a) Consistent with its commitment to compliance, the organization shall establish, implement and maintain (a) *documented* procedure(s) for periodically evaluating compliance with *relevant environmental legislation and regulations applicable legal requirements* .
- The organization shall keep records of the results of the periodic evaluations.



4.5.2 Evaluation of compliance (2)

- b) The organisation shall evaluate compliance with other requirements to which it subscribes. The organisation may wish to combine this evaluation with the evaluation of legal compliance referred to in clause 4.5.2 a) above or establish (a) separate procedure(s).
- The organization shall keep records of the results of the periodic evaluations.



4.5.2 Evaluation of compliance (3)

- Change summary
 - Importance increased as it becomes a specific requirement
 - Evaluation of compliance with other requirements required
- Impact
 - High
- How to comply
 - Revise the monitoring and measurement procedure
 - Revise the monitoring and measurement plan to include the evaluation of other requirements

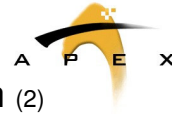
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4.5.3 NC, corrective and preventive action (1)

- The organization shall establish, **implement** and maintain procedures for ~~defining responsibility and authority for handling and investigating nonconformance, taking action to mitigate any impacts caused and for initiating and completing~~ **dealing with actual and potential nonconformities in and for taking** corrective and preventive actions.

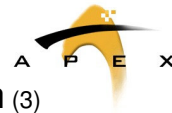
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4.5.3 NC, corrective and preventive action (2)

- The procedure shall define requirements for
 - a) identifying and correcting nonconformities and take actions to mitigate their environmental impacts,
 - b) investigating NCs, determining their causes and taking actions in order to avoid their recurrence,
 - c) evaluating the need for actions to prevent nonconformities and implementing appropriate actions designed to avoid occurrence;,
 - d) recording the results of corrective and preventive actions taken, and
 - f) reviewing the effectiveness of corrective and preventive actions taken.

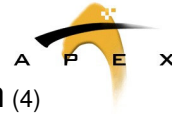
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4.5.3 NC, corrective and preventive action (3)

- ~~Any corrective or preventive~~ Actions taken ~~to eliminate the causes of actual and potential nonconformances~~ shall be appropriate to the magnitude of problems and ~~commensurate with~~ the environmental impacts encountered.
- The organization shall ~~implement and record~~ ensure that any necessary changes ~~in the documented procedures resulting from corrective and preventive action~~ are made to EMS documentation.

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4.5.3 NC, corrective and preventive action (4)

- Change summary
 - need for determining the cause of NC
 - more detailed requirements in the process, matching those of ISO9001
- Impact
 - medium
- How to comply
 - Revise the NC & C&PA Procedure
 - Revise the NC & C&PA Report form
 - Investigate and determine the cause of each NC reported

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4.5.4 Control of Records (1)

- The organization shall establish and maintain records ~~shall be maintained, as appropriate to the system and to the organization, as necessary~~ to demonstrate ~~conformance~~ conformity to the requirements of its EMS and of this International Standard and the results achieved.
- The organization shall establish, implement and maintain procedures for the identification, ~~maintenance~~ storage, protection, retrieval, retention and ~~disposition~~ disposal of ~~environmental~~ records. ~~These records shall include training records and the results of audits and reviews.~~

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4.5.4 Control of Records (2)

- *Environmental* Records shall be **and remain** legible, identifiable and traceable. ~~to the activity, product or service involved. Environmental records shall be stored and maintained in such a way that they are readily retrievable and protected against damage, deterioration or loss. Their retention times shall be established and recorded.~~



4.5.4 Control of Records (3)

- Change summary
 - No new requirements
- Impact
 - Nil
- How to comply
 - No action required



4.5.5 Internal Audit (1)

- The organization shall ~~establish and maintain (a) programme(s) and procedures for periodic environmental management system~~ ensure that internal audits of the EMS are conducted at planned intervals ~~to be carried out, in order~~ to
 - a) determine whether ~~or not~~ the EMS
 - 1) conforms to planned arrangements for environmental management including the requirements of this International Standard; and
 - 2) has been properly implemented and is maintained; and

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4.5.5 Internal Audit (2)

- b) provide information on the results of audits to management.

~~The organization's~~ Audit programmes shall be planned, established, implemented and maintained by the organization taking into consideration, ~~including any schedule, shall be based on~~ the environmental importance of the ~~activity operations~~ concerned and the results of previous audits.

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4.5.5 Internal Audit (3)

~~In order to be comprehensive, the~~ Audit procedures shall be established, implemented and maintained that address:

- 1) the responsibilities and requirements for planning and conducting audits, ~~and~~ reporting results and for retaining associated records;
- 2) the determination ~~cover the~~ of audit criteria, scope, frequency and ~~methodologies~~ methods.

Selection of auditors and conduct of audits shall ensure objectivity and the impartiality of the audit process.



4.5.5 Internal Audit (4)

- Change summary
 - Need to address audit planning
 - Objectivity and impartiality of audit
- Impact
 - High
- How to comply
 - Revise the internal audit procedure to address audit planning and specify independent audit



4.6 Management Review (1)

- ~~The organization's~~ Top management shall, ~~at intervals that it determines,~~ review the **organization's EMS, at planned intervals**, to ensure its continuing suitability, adequacy and effectiveness.
- ~~The management~~ Review shall ~~address the possible~~ **include assessing opportunities for improvement and the need for changes to the EMS including the environmental policy and environmental objectives and targets.** ~~other elements of the environmental management system, in the light of environmental management system audit results, changing circumstances and the commitment.~~

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4.6 Management Review (2)

- ~~The management review process shall ensure that the necessary information is collected to allow management to carry out this evaluation. This~~ **Records of the management review shall be documented retained.**
- **Input to management reviews shall include:**
 - a) **results of internal audits and evaluations of compliance with legal requirements and with other requirements to which the organization subscribes;**
 - b) **communication(s) from external interested parties, including complaints;**
 - c) **the environmental performance of the organization;**

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4.6 Management Review (3)

- d) the extent to which objectives and targets have been met;
- e) status of corrective and preventive actions;
- f) follow-up actions from previous management reviews;
- g) changing circumstances including developments in legal and other requirements related to its environmental aspects; and
- h) recommendations for improvements.
- The outputs from management reviews shall include any decisions and actions related to possible changes to environmental policy, objectives, targets and other elements of the EMS, consistent with the commitment to continual improvement.

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4.6 Management Review (4)

- Change summary
 - Explicit and detailed requirements in management review added
 - In line with ISO9001
- Impact
 - High
- How to comply
 - Revise the management review procedure
 - Prepare a new standard review meeting agenda
 - Carry out a review according to the new procedure

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Questions and Answers

Questions are welcome!

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Thank you for your participation!

See you in our coming seminars. . .

Apex Management Solutions Ltd.

Unit 1305, 13/F, Tai Yip Building, 141 Thomson Road, Wan Chai, Hong Kong
Tel: 3520 2161 Fax: 3520 2176 E-mail: info@apexms.hk

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