



技术报告

GB/T 24001-2016/ISO 14001:2015《环境管理体系 要求及使用指南》标准的主要变化及对相关要点的理解

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前 言

为了帮助用户加深对ISO 14001:2015版标准的理解、提高用户对新版标准主要变化的认识，在ISO 14001:2015版标准正式发布后，国际标准化组织环境管理委员会第一分技术委员会第五工作组（ISO/TC207/SC1/WG5）专家对标准修订过程中达成的一致共识进行了整理，并公开对外发布相关文件。

国家标准GB/T 24001-2016《环境管理体系 要求及使用指南》等同转化自ISO 14001:2015。为促进各方对GB/T 24001-2016/ISO 14001:2015的理解，中国合格评定国家认可委员会（CNAS）以ISO/TC207/SC1/WG5专家对外发布的文件为基础，组织国内相关机构和技术专家进行翻译和研讨，编制形成了本文件。本文件由以下四个部分及四个英文原文附件组成：

第一部分 ISO 14001:2015的主要变化

第二部分 ISO 14001:2015中的外包过程

第三部分 ISO 14001:2015中的生命周期观点

第四部分 ISO 14001:2015中的常见问题

附件1: Main changes in ISO 14001:2015

附件2: Outsourced processes in ISO 14001:2015

附件3: Lifecycle perspective

附件4: FAQ on ISO 14001:2015

本文件主要编译人员：杨晓涛、周文权、王顺祺、王瑜、杨振强、李金梅、刘建峰。

第一部分 ISO 14001: 2015 的主要变化

1. 战略性的环境管理

组织将环境管理体系融入其战略策划过程中显得越发突出,新版标准对此有明确的要求。标准中新增加的条款“了解组织所处的环境”,就是要求组织统筹考虑组织与环境两者之间的利益和机遇,其中特别需要关注的是组织与相关方的需求(包括法规要求)和期望有关的事项或变化的环境,以及可以影响组织或被组织影响的地区、区域和全球层面的环境状况。一旦被确定为优先项,组织就应将减少负面风险和开拓有益机遇的各项措施融入到环境管理体系的运行策划中。

2. 领导作用

为确保体系运行取得成功,新版标准新增了一个条款,为那些处在领导地位的人员增加了特定的职责,以充分发挥其在组织环境管理中的领导作用。

3. 保护环境

相关方对组织的期望在不断地拓展,要求组织作出承诺:与所处环境进行积极协调,主动保护环境,避免环境受到损害和发生退化。新版标准的正文中未对“保护环境”作出定义,但注明了“保护环境”的行动可包括:污染预防,资源的可持续使用,减缓和适应气候变化,保护生物多样性和生态系统等。

4. 环境绩效

关于持续改进原则的重要变化,新版标准从以往强调环境管理体系的持续改进调整为强调环境绩效的持续改进。为了履行环境方针中的承诺,适用时,组织应将其废气、废水和固废的排放降至其所设定的水平。

5. 生命周期观点

新版标准要求组织不仅要与所采购的产品和服务有关的环境因素进行管理,还需要将其控制和影响延伸到与产品设计和开发有关的环境因素,考虑生命周期的每一个阶段:即原材料的获取、设计、生产、运输/交付、使用、寿命结束后处理以及最终处置。这并不意味着要求组织开展生命周期评价。

6. 外包过程

组织需要控制或影响其外包过程。

7. 信息交流

制定外部和内部并重的信息交流策略是新标准增加的内容,这包括了要求组织交

流的信息是一致的和可靠的，并要求组织建立一种机制鼓励在组织控制下的工作人员提出针对环境管理体系的改进建议。组织有权决定开展与外部进行的信息交流，但组织在作出此类决定时应考虑监管机构对组织上报信息的要求，同时还要考虑相关方的期望。

8. 文件

新版标准考虑到了计算机和云技术在管理体系建立实施过程中的应用，在标准正文中用“文件化的信息”代替了以往的“文件”和“记录”。为了与新版ISO9001标准的要求保持一致，新版ISO14001标准同样提出由组织来明确需求，根据需求分析的结果来建立必要的“程序”以确保实现有效的过程控制。

9. ISO管理体系标准的通用结构

新版ISO14001标准应用了ISO管理体系标准（MSS）的高阶结构（HLS）。HLS是新的ISO管理体系标准通用结构，包括通用的术语、定义、标题和正文。ISO在管理体系标准中推行通用标准结构的目的是为了方便用户同时应用多个ISO管理体系标准。HLS适用于ISO发布的管理体系标准，且HLS允许不同领域的管理体系标准在保持结构通用性的同时体现其领域特性。

有关ISO14001:2015及相关标准的更多信息，可访问ISO/TC207/SC1的网站—
<http://committee.iso.org/tc207sc1>。

第二部分 ISO14001:2015 中的外包过程

对于2015版的ISO14001标准而言，有关外包过程要求是新增的。

在ISO14001:2015的8.1条款中，标准有关外包过程的要求为：

组织应确保对外包过程实施控制或施加影响，应在环境管理体系内规定对这些过程实施控制或施加影响的类型与程度。

为了理解标准要求，先对外包的定义和ISO 14001:2015附录A中有关外包过程的指南进行回顾。

外包的定义：

3.3.4 外包（动词）

安排外部组织（3.1.4）承担组织的部分职能或过程（3.3.5）。

注1：虽然外包的职能或过程是在组织的管理体系（3.1.1）覆盖范围内，但是外部组织是处在体系覆盖范围之外。

附录A(A.8.1)中的指南提到：

外包过程是满足下述所有条件的一个过程：

- 在环境管理体系的范围之内；
- 对于组织的运行是必需的；
- 对环境管理体系实现其预期结果是必需的；
- 组织具有符合要求的责任；
- 组织与外部供方存在一定关系。此时，相关方视同是为组织在实施该过程。

综合起来看，标准中有关外包过程的定义和指南有助于使用者识别外包过程。

关于“应在环境管理体系内规定对这些过程实施控制或施加影响的类型与程度”的要求，附录A（A.8.1）对如何确定控制或影响的程度提供了指南，同时描述了组织在实施控制或施加影响方面可能存在的局限性。

组织在其自身业务过程（例如：采购过程）中对外包过程进行控制或施加影响。组织对控制外包过程的程度所做出的相关决定应基于所能获得的知识、能力和资源等因素，包括：

- 外部供方满足组织环境管理体系要求的能力；
- 组织确定适宜控制程度或评价控制过程充分性的技术能力；
- 关于组织实现其环境管理体系预期结果的能力，产品和服务所具有的重要性和带来的潜在影响；
- 共享控制过程的程度；
- 通过常规采购过程，实现必要控制的能力；
- 可获得的改进机会。

当组织将一个过程外包时，组织实施控制或施加影响的能力可能出现由直接控制向有限控制或无法施加影响的变化。一种情况下，在组织现场的外包过程可能受到直接控制；另一种情况下，组织影响外包过程的能力可能存在局限性。



第三部分 ISO14001:2015 中的生命周期观点

为什么包括生命周期观点？

按照ISO 14001 — 一个系统的环境管理方法，可向最高管理者提供信息以创建优选方案，从而帮助组织取得长久成功并实现可持续发展。组织运用生命周期观点，对组织的产品和服务的设计、制造、交付、消费和最终处置等阶段进行控制或施加影响，并防止环境影响被无意识地转移到生命周期的其他阶段。

什么是生命周期？

生命周期的定义是“产品（或服务）系统中前后衔接的一系列阶段，从自然界或从自然资源中获取原材料直至最终处置”。生命周期阶段包括原材料获取、设计、生产、运输和（或）交付、使用、寿命结束后处理和最终处置。

组织开展生命周期评价是ISO14001标准的一项要求吗？

ISO14001:2015并不要求组织开展生命周期评价。在ISO14001附录A的6.1.2中明确阐明：“在确定环境因素时，组织要考虑生命周期观点。但标准并不要求组织进行详细的生命周期评价，只需认真考虑可被组织控制或影响的生命周期阶段就足够了。产品或服务的典型生命周期阶段包括原材料获取、设计、生产、运输和（或）交付、使用、寿命结束后处理和最终处置。适用的生命周期阶段将依活动、产品和服务的不同而存在差异”。

为什么要考虑生命周期观点？

ISO14001:2015标准给出的原因：“组织的一些重大环境影响，可能发生在其产品或服务的运输、交付、使用、寿命结束后处理或最终处置等阶段”。组织运用生命周期观点，考虑在活动、产品和服务中实施控制或施加影响的程度，可预防或减少其活动、产品或服务在这些生命周期阶段中的不利环境影响。

ISO 14004 的指南

实用指导 - 生命周期观点

生命周期观点包括考虑组织活动、产品和服务中能够控制或能够施加影响的环境因素。生命周期阶段包括原材料的获取、设计、生产、运输和（或）配送、使用、寿命结束后处理和最终处置。

当对其产品和服务运用生命周期观点时，组织应当考虑以下因素：

——产品或服务所处的生命周期阶段。

——在生命周期阶段的控制程度，例如，产品设计师可能只负责原材料的选择，

而制造商可能只负责减少原材料的使用和过程废物的最小化，用户只负责产品的使用和最终处置。

——在生命周期阶段的影响程度，例如，设计师可能只对制造商的生产方式施加影响，而制造商可能同时影响产品设计以及产品的使用方式或其处置方法；

——产品寿命；

——组织对供应链的影响；

——供应链的长度；

——产品技术的复杂程度；

组织可重点关注其具备最强控制或影响力的生命周期阶段，因为这些阶段存在着减少资源使用和最大限度减少污染和废物的最大机会。

涉及到生命周期观点的ISO 14001 关键要求是：

6.1.2 环境因素

组织应在所界定的环境管理体系范围内，确定其活动、产品和服务中能够控制和能够施加影响的环境因素及其相关的环境影响。此时应考虑生命周期观点。

8.1 运行策划和控制

组织在运用生命周期观点时应：

- a) 适当时，制定控制措施，确保在产品或服务的设计和开发过程中，考虑生命周期的每一个阶段来落实其环境要求；
- b) 适当时，确定对采购产品和服务的环境要求；
- c) 与外部供方（包括合同方）沟通组织的相关环境要求；
- d) 考虑提供与其产品和服务的运输或交付、使用、生命结束后的处理和最终处置相关的潜在重大环境影响的必要信息。

第四部分 ISO14001:2015 中的常见问题

本文件是依据ISO/TC207/SC1/WG5工作组专家在ISO14001修订期间所取得的共识起草的，其目的是帮助使用者加深对2015版ISO14001标准的理解。本文分成下述几部分：

- 针对新版标准的普通性问题
- 有关“术语和定义”的常见问题
- 有关条款的具体概念

术语“HLS”和“附件SL”指的是：ISO在2015年发布的第6版ISO/IEC导则第一部分规范性附件SL中用于管理体系标准（MSS）的高阶结构，包括通用的术语、定义、标题和正文。

针对新版标准的普通性问题

1. 为什么对附录SL中ISO规定的管理体系标准要求的正文做了修改？

起草组为了将环境管理体系（EMS）的特定要求添加到核心正文中，并在起草过程中继续符合附件SL的使用规则，起草组经协商后采用了一种整合的方案：即按照ISO/TC 207/SC1/WG5的工作原则，根据不同的主题，以灵活的方式将EMS的具体要求加入到核心正文中。一些情况下，将EMS的要求形成一个单独的句子或进行重点说明项；另外一些情况下将EMS要求插入到附件SL所描述的通用正文或重点说明项中。

WG5关于起草正文的工作原则包括：

- 简单、清晰和可译性；
- 简洁并避免冗长；
- 易于标准的应用及保持灵活性；
- 可验证性；
- 与标准的其他要素相兼容。

在一些情况下，为保持适宜性，起草组对ISO/IEC导则第一部分规范性附件SL中的部分用词进行了替换。例如，在“策划、建立、实施、保持、控制和持续改进...”等词的使用上，起草组认为在ISO14001:2015中一致地使用这些词语是重要的，但有必要在一些条款中做出调整，以准确表达条款的特定意图。例如，在条款6.1.1中，WG5采用了“建立、实施并保持过程”等词；而在条款8.1中使用的文字是“建立、实施、控制并保持”。

2. ISO14001:2004中所要求的程序发生了什么变化？

由于“程序”这个术语曾多被错误地视为“文件化程序”，所以在ISO14001:2015标准中避免了使用“程序”这一术语。

除了对“过程”有要求的具体条款外，条款4.4要求“组织要建立其环境管理体系所需的过程”。条款A 4.4明确指出“由组织决定需要建立过程的程度，以使人确信它们能按策划得到控制和实施，并实现期望的结果”。

条款A8.1运行策划和控制中，阐明了有各种不同的可确保过程有效并能实现期望结果的方法（见a）-f））。建立一个“程序”（即：为实施一个过程所规定的途径）就是这些方法之一（见d）；另一种方法是建立一个“文件化的程序”（见f））。

条款7.5.1提到了标准的具体条款中所要求的文件化信息，以及组织认为实现其环境管理体系有效性所必需的其他文件化信息。

考虑到这些条款的规定，WG5重新评估了在2015版标准中要求建立“程序”的需求，同意在一些选定的条款中规定“过程”的要求，并且，在某些情况下，规定了这些过程进行文件化要求。这给组织提供了灵活性，组织可以决定是否需要按一种规定的方法（即“程序”）执行一个过程，是否采用规定的更加合适的运行控制方法，以及是否需要附加的文件化信息。

3. 为什么没有关于变更管理的条款？

ISO/TC207/SC1/WG5 同意在标准要求中不增设“单独条款”或“子条款”来处理“变更管理”的问题。“变更管理”会在适当的子条款中得到处理，并且在附录A.1中给出了关于管理变更的解释。

4. 为什么ISO14001有时使用“影响（effect）”有时使用“影响（impact）”？

ISO/TC207/SC1/WG5 认为：为“影响（effect）”一词用于“风险和机遇”的定义中，在标准的其他地方同时涵盖对组织的“影响（effect）”和环境的“影响（effect）”。当专门涉及对环境的“影响（effect）”时，使用“environmental impact（环境影响）”一词。

5. 短语“提升环境绩效”的含义是什么？

“提升环境绩效”的基本含义是：降低组织的不利环境影响（即：减少资源的使用，减少废气、废水及废物的排放等）或提升组织的有益影响（例如：对副产品进行再利用和再循环，保护土地等）。这个概念在ISO14031中被称为“运行绩效”。ISO/TC207/SC1/WG5希望保持附件SL与 ISO14031在环境管理体系改进概念上的一致性，并符合ISO14001修订要求，但在选定的一些条款中强调重在改进运行绩效。因此，WG5一致同意在那些需特别强调的条款中使用短语“提升环境绩效”。

6. 条款4.1、4.2和6.1的期望是什么？

标准先从概念上引导读者加深对“期望”的理解，然后对“期望”做出了更加具体的确定。例如：条款4.1和4.2的“期望”是对与组织有关的问题以及相关方的要求的概念性理解。至于条款6.1，其目的是进行重要环境因素(6.1.2)和合规义务(6.1.3)的具体确定。按照“基于风险的思维”，条款6.1.1的目的是对与其他问题和要求相关的“风险和机遇”进行一个概念性的分析，而不是要求或期望进行详细的风险评估。

7. 新短语“在其控制下工作的人员”的含意是什么？

如附件A.3所述，短语“在其控制下工作的人员”包括为组织工作的人员和那些代表组织工作并承担相应职责的人员（例如：合同方）。它代替了前版ISO14001标准中使用的短语“为其工作或代表其工作的人员”和“为组织或代表组织工作的人员”。这一新短语的含义与前版标准并无实质性区别。

8. “EMS的预期结果”是什么意思？

标准在条款1“范围”中介绍了“预期结果”的概念。并在附件A3中提供了进一步的解释。短语“预期结果”表示组织期望通过实施其环境管理体系达成的目的。最低限度的三个“预期结果”包括：提升环境绩效，履行合规义务和实现环境目标。组织可以对其环境管理体系设置更多的预期结果。例如，与其保护环境的承诺相一致，组织可以建立一个致力于实现可持续发展的预期结果。

有关“术语和定义”的常见问题

9. 条款3中的术语和定义是如何排序的？

按照ISO/IEC导则第二部分有关“术语和定义”的要求，“术语和定义”应当根据概念的分级依次列出（反映它们在标准中出现的顺序）。在ISO14001:2015中，术语按主要条款的标题分组（即组织所处的环境、领导作用、策划等）。

ISO/TC207/SC1/WG5决定在分组中按下列原则排序。

- (1) 专业术语尽可能排在通用术语之后；
- (2) 按术语在正文中出现的顺序排序。

WG5在标准最后增加了“按字母顺序的术语索引”。在应用其他语言时，可以修改此排列顺序以反映其字母顺序。

10. 为什么在ISO14001的英文版本中使用“合规义务”，而在一些翻译稿中使用“法律法规和其他要求”？

为了解决某些语言的翻译问题，ISO/TC207/SC1/WG5决定在定义“合规义务”上增加许用术语“法律法规和其他要求”。起草ISO14001:2015的非英语版本时，成员国机构应负责选择最能够表达该定义含义的术语。

11. 在ISO 14001环境管理和ISO19600合规管理中，术语“合规义务”的使用有没有区别？

有区别。ISO/TC207/SC1/WG5修改了这个术语的定义，增加了“注1”，以澄清在ISO14001中“合规义务”仅限于与环境管理体系相关的那些要求。

12. ISO 14001对待组织的各种合规义务（如强制性要求、自愿要求等）的应用是否相同？

相同。ISO/TC207/SC1/WG5认为EMS条款和相关规定同样适用于：

- a) 强制性要求，如法律法规和具有法律约束力的要求；
- b) 别无选择而必需遵守的义务，尽管严格讲它们并不具有法律约束力，例如：母公司向子公司发出的指令，或公司发出给各部门的指令；
- c) 自愿性要求，例如：组织选择作出的承诺。

WG5无意在标准中对上述要求作出区分，即：不为每一类要求设立单独的条款（即“正式陈述”），也不为每一类要求作出重复规定。

13. 什么是外包过程？

外包过程与采购的产品和服务不同。在附录A的8.1条款中对外包过程的具体条件进行了说明。外包过程是“由满足下述所有条件的、由外部组织实施的过程或职能。

- 在环境管理体系的范围之内；
- 对于组织的运行是必需的；
- 对环境管理体系实现其预期结果是必需的；
- 组织保有符合要求的责任
- 组织与外部供方存在一定关系，此时，相关方会认为该过程是由组织实施的。”

有关条款的具体概念

14. 条款4.1中“问题（issues）”的含义是什么？

“问题（issues）”是组织的重要议题，也是需要探讨和讨论的问题，或可能对环境管理体系的预期结果造成影响（无论是正面的或负面的）的变化着的情况。

—— 环境状况，例如：空气、水、土地、自然资源，这些并不是与EMS有关的唯一问题。

—— 问题可来自于非环境的外部和内部的课题，如金融、技术、治理等（见附录A.4.1中给出的示例）。

—— “风险和机遇”不是问题(issues)，“风险和机遇”来自于问题（issues）。

15. “组织宗旨”的含义是什么？

条款4.1第一段中的“组织宗旨”是指组织为什么存在，以及它存在的原因。组织宗旨所涵盖的活动是组织存在的核心，宗旨往往反映在组织的愿景和使命中。

16. 条款4.1和4.2的所期望的输出是什么？

这两个条款的输出是知识。这是对内部和外部问题（包括环境状况），以及相关方的要求可能如何影响组织实现其EMS预期结果的能力的一种概念性理解。这些知识被用于设计和改进EMS的输入。

例如，这类知识作为输入的证据体现在组织EMS的其他部分。一般认为4.1和4.2没有提出文件化信息的要求。由于每个组织的EMS是独特的，在7.5.1中规定：一个组织可以自行决定，为实现其EMS的有效性是否需要附加的文件化信息。

17. 条款4.2的意图是什么？

条款4.2对组织而言是一个具有战略性和探索性的步骤，使其收集相关方的信息，以理解他们的有关需求和期望。ISO/TC207/SC1/WG5认为，组织基于相关方要求的知识，在条款4.2中的“概念层面”确定其合规义务。这些要求的详细分析在条款6.1.3中进行。

在条款4.2中当提到相关方时，术语“要求”被“需求和期望”所替代。这样做是为了保持强制性的相关方要求（如法律或许可条件）和组织选择遵守（如合同协议）的要求之间的差异。组织有权决定如何对各相关方的需求和期望做出承诺，并有权决定在设计其EMS时如何考虑这些需求和期望。

18. 在确定EMS的范围时，考虑条款4.1和4.2的意图是什么？

组织有权决定其EMS的范围。它也有权决定4.1和4.2中识别出的哪些问题是需要在EMS中优先处理的。条款4.3并不意味着组织必须处理所有问题。

此外，ISO/TC207/SC1/WG5认为，考虑4.1和4.2的意图是要考虑合规义务（组织必须遵守或选择遵守的有关相关方的要求），而不必考虑所有相关方的要求。因此，这里用的术语是“考虑”，而不是“必须考虑”。

19. 条款4.3确定EMS的范围的意图是什么？

EMS的“范围”包括将要应用ISO14001要求的组织的职能、物理边界，以及其活动、产品和服务。组织在确定EMS的范围时，通常要考虑标准中列出的各项要点。

基于长期的共识，ISO/TC207/SC1/WG5在2015版ISO14001标准中确认并继续保留“允许组织分阶段实施EMS的方案”。针对有些组织可能会有目的地“挑选”活动、产品和服务、故意排除那些具有重要环境因素的活动、产品和服务所引起的担心，标准增加了其范围应可为相关方获取的要求，以确保范围信息的透明度，并避免被相关方误解。

EMS的范围和边界一经界定，就不允许将已确定范围内的活动、产品或服务排除在体系覆盖范围之外。虽然一个组织可以有权自由和灵活地确定其范围的边界，但其（EMS）与ISO14001:2015标准的符合性应当基于一个稳固的、可信的和可靠的环境管理体系。

与ISO14001:2004中条款4.1要求“组织应…确定它将如何满足这些要求”的意图一致，ISO14001:2015也保留了“组织有权自主决定它将如何满足其环境管理体系要求”的概念，见附录A.4.3和A.4.4中的相关说明。

20. 方针中承诺保护环境的意图是什么？

ISO/TC207/SC1/WG5认为：

—— 其意图是有一个保护环境（“环境”所包含的意思见术语3.2.1的定义）的方针承诺。保护环境包括“污染预防”的概念，也将包括其他概念（即：资源的可持续利用、减缓气候变化等）。

—— 保留强调“污染预防”。

—— 其意图是涵盖比“污染预防”更广泛的范围，包括积极的，主动的努力。

21. 要求确定“风险和机遇”的意图是什么

ISO/TC207/SC1/WG5认为：

—— “风险和机遇”比环境风险（即与空气、水、土地、自然资源等有关的）的范畴更广，可来自于导致风险的其他非环境事项。

—— “风险和机遇”并非都与EMS有关，除非它们能够影响组织的宗旨和EMS的预期输出。

—— 意图是确定并应对与组织所处环境有关的风险和机遇（即来自于4.1和4.2的“问题”，这些“问题”对环境管理体系的预期输出具有潜在的不利影响（风险）或有益影响（机遇），并将这些知识作为确定风险（威胁）和机遇优先项的输入之一）

—— 在标准中并未有规定性的风险管理过程的要求。

标准附录A6.1提供了关于风险和机遇的附加指南。

22. 确定重要环境因素准则的示例有什么？

环境准则（例如，毒性、持续时间和暴露的可能性）是组织用于评价环境因素的基本和最低限度的准则。也可以使用其他的准则（例如，当只考虑环境准则时，某个环境因素可能并不重要，但是当考虑组织的其他问题（如：不合规的威胁，或有机会满足有关相关方的需求和期望）时，此环境因素可能就具有优先性或被确定为重要环境因素的重要性）。但是，组织不应使用其他准则来降低基于其环境影响的重要环境因素等级。

23. 确定风险和机遇、环境因素以及合规义务的过程是分开的，还是可以合并在一起？

由组织决定其是否愿意对子条款6.1.1到6.1.4独立进行分析还是部分（或全部）结合起来进行分析。ISO/TC207/SC1/WG5认为这并不意味着重要环境因素（6.1.2的输出）或合规义务（6.1.3的输出）必需经过第二个“筛选”步骤来确定需要在条款6.1.4中应对的“风险和机遇”。因为组织可用单独或结合的方式来确定与问题、重要环境因素以及合规义务相关的“风险和机遇”。新版标准要求组织策划一个过程，并保持必要程度的过程文件化信息（包括用于确定重要环境因素的准则）以确信过程已按策划得到实施。然而，ISO14001:2015确实要求过程的输出要形成文件。

24. 条款4.1、4.2、6.1和8.1之间的关系是什么

条款4.1和4.2为组织提供了知识，用于在条款6.1中确定需要应对的风险和机遇、重要环境因素（包括运用生命周期观点），以及合规义务。上述这些都是条款6.1.4和8.1的输入。条款8.1专注于运行控制的实施以满足6.1.4所识别的措施所需。

25. 为什么在环境目标这一条款中将经营考虑去除了？

ISO/TC207/SC1/WG5认为组织在条款6.1.4策划所采取的措施时有各种各样的选项。考虑到环境目标也适用于这些选项（如技术选项，等），因此经营的考虑就被移入到条款6.1.4中。

26. 既然组织策划措施以应对其风险和机遇、合规义务和重要环境因素，标准要求组织建立环境目标了吗？

ISO/TC207/SC1/WG5认为组织在策划条款6.1.4中所采取的措施时有各种各样的选择，但是至少应建立一项环境目标。

WG5认为建立环境目标时必须考虑重要环境因素、合规义务以及风险和机遇，但这并不意味着要重复确定哪些重要环境因素、合规义务以及风险和机遇需要一一对应（这些在条款6.1中已经确定了）。

27. 为什么条款7.4没有列出信息交流的内容？

本标准已将具体的信息交流要求放在了讨论该内容的相应条款中，所以在条款7.4中未重复包含信息交流内容。

28. 条款8.1是对外部供方的强制要求吗？

ISO标准仅对采用本标准的组织提出了强制要求。条款8.重点强调的是组织通过其内部过程影响外部供方，而不是控制外部供方的过程。所使用的术语“外部供方”既包含了采购的产品和服务的供应商，也包含了外包过程的供应商，这与ISO9001是一致的。

29. 为什么ISO14001包含了设计的新要求？

ISO/TC207/SC1/WG5认为组织在运行策划和控制过程中应当考虑设计活动。因

为在设计活动阶段做出的重要决定可能会影响到产品和服务在生命周期的每个阶段的环境影响。

30. ISO14001要求组织就其环境影响与其价值链中的所有人员进行沟通吗？

不是。组织享有在提供有关交付、使用和寿命结束期间潜在重大环境影响信息的灵活性，故标准保留了“考虑需求”的描述。

31. ISO14001:2015是否删除了2004版中识别潜在紧急情况的要求？

未删除。WG5认为：将识别潜在紧急情况的要求放置在PDCA模型中的策划阶段比在控制阶段被认为更合适，所以条款6.1.1包含了此项内容。

32. 条款9.3 d) 4) 中“审核结果”的信息是仅指内部EMS审核，还是包括内、外部EMS审核？（即第1方、第2方和第3方审核）

条款9.2.2中使用的术语“审核”指的是由组织实施或者是代表组织实施的内部审核（与子条款的标题一致）。而条款9.3指的是包括与环境管理体系有关的内部和外部的审核（即第一方审核、第二方审核和第3方审核）。

33. “持续改进环境管理体系以提升环境绩效”的含义是什么？

ISO/TC207/SC1/WG5认为体系改进的最终目标是组织环境绩效的提升。WG5也认为环境管理体系的改进也包含环境绩效的提升。在某些情况下，标准要求的目的是关注环境管理体系的改进；而在另外一些情况下，标准要求的目的是关注环境绩效的提升。

因此WG5采用了以下描述：

就“持续改进”本身而言，其目的是既关注环境管理体系的改进，也关注环境绩效的提升，没有其它特别含义。

术语“环境管理体系的持续改进”，仅指环境管理体系的改进。

术语“提升环境绩效”，仅指环境绩效的提升。

术语“持续改进环境管理体系以提高环境绩效”，其含义既强调环境管理体系的改进，又强调环境绩效的提升，且重点强调的是绩效的提升。

附件1: *Main changes in ISO 14001:2015*

Strategic Environmental Management

There is an increased prominence of environmental management within the organization's strategic planning processes. A new requirement to understand the organization's context has been incorporated to identify and leverage opportunities for the benefit of both the organization and the environment. Particular focus is on issues or changing circumstances related to the needs and expectations of interested parties (including regulatory requirements) and local, regional or global environmental conditions that can affect, or be affected by, the organization. Once identified as a priority, actions to mitigate adverse risk or exploit beneficial opportunities are integrated in the operational planning of the environmental management system.

Leadership

To ensure the success of the system, a new clause has been added that assigns specific responsibilities for those in leadership roles to promote environmental management within the organization.

Protecting the environment

The expectation on organizations has been expanded to commit to proactive initiatives to protect the environment from harm and degradation, consistent with the context of the organization. The revised text does not define 'protect the environment' but it notes that it can include prevention of pollution, sustainable resource use, climate change mitigation and adaptation, protection of biodiversity and ecosystems, etc.

Environmental performance

There is a shift in emphasis with regard to continual improvement, from improving the management system to improving environmental performance. Consistent with the organization's policy commitments the organization would, as applicable, reduce emissions, effluents and waste to levels set by the organization.

Lifecycle perspective

In addition to the current requirement to manage environmental aspects associated with procured goods and service, organizations will need to extend its control and influence to the environmental impacts associated with product design and development to address each stage of the life cycle, i.e. acquisition of raw materials, design, production, transportation/delivery, use, end-of-life treatment and final disposal. This does not imply a requirement to do a life cycle assessment. 2 ©ISO 2015

Outsourced processes

Organizations need to control or influence outsourced processes.

Communication

The development of a communications strategy with equal emphasis on external and internal communications has been added. This includes a requirement on communicating consistent and reliable information, and establishing mechanisms for persons working under the organization's control to make suggestions on improving the environmental management system. The decision to communicate externally is retained by the organization but the decision needs to take into account information reporting required by regulatory agencies and the expectations of other interested parties.

Documentation

Reflecting the evolution of computer and cloud based systems for running management systems, the revision incorporates the term 'documented information', instead of 'documents' and 'records'. To align with ISO 9001, the organization will retain the flexibility to determine when 'procedures' are needed to ensure effective process control.

ISO common framework for management systems

It uses ISO new High Level Structure (HLS) for Management System Standards (MSS) which is a new common framework for ISO management system standards, which incorporate identical core text, and common terms with core definitions. The new framework is designed to benefit users implementing multiple ISO management system standards and be applicable to any management system standard. This allows compatibility across ISO management system standards while offering subject-specific flexibility.

For more information about ISO 14001:2015 and related standards, visit the ISO/TC 207/SC 1 website - <https://committee.iso.org/tc207sc1>

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附件2: *Outsourced processes in ISO 14001:2015*

Outsourced processes requirement is new to ISO 14001 in the 2015 edition. The requirements for outsourced processes are contained in Sub Clause 8.1:

The organization shall ensure that outsourced processes are controlled or influenced. The type and extent of control or influence to be applied to the process(es) shall be defined within the environmental management system.

To understand these requirements, one must first review both the definition of *outsource*, and the guidance on the term *outsourced process* found in **Annex A** of ISO14001:2015.

The definition of *outsource* is:

3.3.4

outsource (verb)

make an arrangement where an external *organization* (3.1.4) performs part of an organization's function or *process* (3.3.5)

Note 1 to entry: An external organization is outside the scope of the *management system* (3.1.1), although the outsourced function or process is within the scope.

The guidance in **Annex A** (A.8.1) states:

An outsourced process is one that fulfils all of the following:

- it is within the scope of the environmental management system;
- it is integral to the organization's functioning;
- it is needed for the environmental management system to achieve its intended outcome;
- liability for conforming to requirements is retained by the organization;
- the organization and the external provider have a relationship where the process is perceived by interested parties as being carried out by the organization.

Taken together, the definition and the guidance will assist the user in identifying its outsourced processes.

With regard to the requirement that the “*type and extent of control or influence to be applied to the process(es) shall be defined within the environmental management system*”, **Annex A** (A.8.1) provides guidance on how to define the extent of control or influence, and describes the limitations that an organization may have in doing so:

The organization decides the extent of control needed within its own business processes (e.g. procurement process) to control or influence (an) outsourced process(es)... Its decision should be based upon factors such as:

- *knowledge, competence and resources, including:*
 - *the competence of the external provider to meet the organization's environmental management system requirements;*
 - *the technical competence of the organization to define appropriate controls or assess the adequacy of controls;*
 - *the importance and potential effect the product and service will have on the organization's ability to achieve the intended outcome of its environmental management system;*

- *the extent to which control of the process is shared;*
- *the capability of achieving the necessary control through the application of its general procurement process;*
- *improvement opportunities available.*

When a process is outsourced,the organization's ability to exert control or influence can vary from direct control to limited or no influence. In some cases, an outsourced process performed onsite might be under the direct control of an organization; in other cases, an organization's ability to influence an outsourced processmight be limited.



附件3: *Life cycle perspective - what ISO14001 includes*

Why include life cycle perspective?

According to ISO 14001 - *A systematic approach to environmental management can provide top management with information to build success over the long term and create options for contributing to sustainable development by controlling or influencing the way the organization's products and services are designed, manufactured, distributed, consumed and disposed by using a life cycle perspective that can prevent environmental impacts from being unintentionally shifted elsewhere within the life cycle.*

What is a life cycle?

The definition of life cycle is '*Consecutive and interlinked stages of a product (or service) system, from raw material acquisition or generation from natural resources to final disposal. Life cycle stages include acquisition of raw materials, design, production, transportation/delivery, use, end-of-life treatment and final disposal.*'

Is a life cycle assessment a requirement in ISO 14001?

No, it is not a requirement as clearly stated in Annex to ISO 14001 A6.1.2: '*When determining environmental aspects, the organization considers a life cycle perspective. **This does not require a detailed life cycle assessment**; thinking carefully about the life cycle stages that can be controlled or influenced by the organization is sufficient. Typical stages of a product life cycle include raw material acquisition, design, production, transportation/delivery, use, end-of-life treatment and final disposal. The life cycle stages that are applicable will vary depending on the activity, product or service.*'

Why consider life cycle perspective?

The reason according to ISO 14001 is that '*Some of the organization's significant environmental impacts can occur during the transport, delivery, use, end-of-life treatment or final disposal of its product or service. By providing information, an organization can potentially prevent or mitigate adverse environmental impacts during these life cycle stages. The organization considers the extent of control or influence that it can exert over activities, products and services considering a life cycle perspective.*

Guidance from ISO 14004

Practical help – Life cycle perspective

A life cycle perspective includes consideration of the environmental aspects of an organization's activities, products, and services that it can control or influence. Stages in a life cycle include acquisition of raw materials, design, production, transportation/delivery, use, end of life treatment, and final disposal.

When applying a life cycle perspective to its products and services, the organization should consider the following:

- the stage in the life cycle of the product or service,
- the degree of control it has over the life cycle stages, e.g. a product designer may be responsible for raw material selection, whereas a manufacturer may only be responsible for reducing raw material use and minimizing process waste and the user may only be responsible for use and disposal of the product,
- the degree of influence it has over the life cycle, e.g. the designer may only influence the manufacturers production methods, whereas the manufacturer may also influence the

design and the way the product is used or its method of disposal,

- the life of the product,
- the organization's influence on the supply chain,
- the length of the supply chain, and
- the technological complexity of the product.

The organization can consider those stages in the life cycle over which it has the greatest control or influence as these may offer the greatest opportunity to reduce resource use and minimize pollution or waste.

ISO 14001 key requirements that refers to life cycle perspective are:

"6.1.2 Environmental aspects

Within the defined scope of the environmental management system, the organization shall determine the environmental aspects of its activities, products and services that it can control and those that it can influence, and their associated environmental impacts, considering a life cycle perspective. "

"8.1 Operational Planning and Control

.....

"Consistent with *a life cycle perspective*, the organization shall:

- a) establish controls as appropriate to ensure that its environmental requirement(s) are addressed in the design and development process for the product or service, considering each stage of its life cycle;
- b) determine its environmental requirement(s) for the procurement of products and services as appropriate;
- c) communicate its relevant environmental requirement(s) to external providers, including contractors;
- d) consider the need to provide information about potential significant environmental impacts associated with the transportation or delivery, use, end-of-life treatment and final disposal of its products and services."

附件4: *FAQ on ISO 14001:2015*

This document is designed to provide additional insight to users of ISO 14001:2015 and is based on the recommendations agreed by working group experts of ISO/TC 207/SC 1/WG 5 (WG5) during the ISO 14001 revision process. It is divided into sections related to:

- General Concepts
- Terms and Definitions
- Clause Specific Concepts

The terms "HLS" and "Annex SL" refer to the high level structure, identical core text, common terms and core definitions for use in management system standards (MSS) set out in Annex SL to the ISO Directives Part 1 2015 (6th edition).

GENERAL CONCEPTS

1. Why has some of the text in Annex SL, ISO's requirements for management system standards, been modified?

In order to add environmental management system (EMS)-specific requirements into the core text and still comply with the rules governing the use of Annex SL, it was agreed to use an integrated approach in a flexible way to incorporate EMS-specific requirements, depending on the subject, and in line with ISO/TC 207/SC 1/WG 5 operating principles. Sometimes the EMS requirements were added in a separate sentence or bullet; sometimes they were inserted within the generic Annex SL sentence or bullet.

WG5 operating principles related to text included:

- simplicity, clarity and translatability
- be concise and avoid redundancy
- flexibility and ease of use of the standard
- verifiability
- compatibility with the other elements of the standard.

In some cases, some Annex SL words were replaced for consistency. For example, on the use of "plan, establish, implement, maintain, control, continually improve..." it was agreed that consistent use of the phrase in ISO 14001:2015 was important, but it has been adjusted in selected clauses to address the specific intent of the clause correctly. For example, in 6.1.1, WG5 used the wording "establish, implement and maintain (the) process(es)", which is different from 8.1 where the wording used by WG5 is "establish, implement, control and maintain".

2. What happened to all of the required procedures in ISO 14001:2004?

ISO 14001:2015 avoids the use of the term "procedure" because it has been incorrectly applied by many as meaning "documented procedure".

In addition to the specific clauses that require a "process", Clause 4.4 requires an organization to establish processes needed for its environmental management system. Clause A.4.4 clarifies that it's to the organization to determine the extent processes are needed in order to have confidence that they are controlled, carried out as planned and achieve the desired results.

Clause A.8.1 on operational planning and control, clarifies that there are different ways of ensuring that processes are effective and achieve the desired results (see bullets a) to f)). Establishing a “procedure” (i.e. a specified way to perform a process) is just one of those ways (see bullet c), and establishing a “documented procedure” is another way (see bullet f). Clause 7.5.1 references the documented information required in specific clauses of the standard, and also any other documented information the organization deems necessary for the effectiveness of its environmental management system.

Taking into account the provisions of these clauses, WG5 reevaluated the need for required “procedures” in the 2015 version, and agreed to specify requirements for “processes” in select clauses, and, in some cases, requirements to document these processes. This allows organizations the flexibility to determine if a process has to be carried out in a specified way (i.e., “procedure”), if other operational control methods are more appropriate, and if additional documented information may be needed.

3. Why is there no clause on Management of Change?

ISO/TC 207/SC 1/WG 5 agreed that no stand-alone clause or sub-clause in the requirements would be added to address “management of change”. “Management of change” is addressed in suitable sub-clauses and, explanatory text on managing change is provided in the Annex, A.1.

4. Why does ISO 14001 sometimes use “effect” and sometimes “impact”?

ISO/TC 207/SC 1/WG 5 agreed that the word “effects” used in the definition of “risks and opportunities” and elsewhere in the standard covers both “effects” on the organization and on the environment. The phrase “environmental impact” is used when referring specifically to “effects” on the environment.

5. What is the intent of the phrase “enhance environmental performance”?

The underlying intent of this phrase is to reduce the organization’s adverse environmental impacts (i.e. reduce resource use, emissions, effluents, wastes, etc.) or to enhance the organizations beneficial impacts (e.g.: reuse and recycling of by-products, land conservation, etc.). This concept is referred to as “operational performance” in ISO 14031. ISO/TC 207/SC 1/WG 5 wanted to retain alignment with Annex SL and ISO 14031 concepts with respect to improvement of the environmental management system, consistent with the ISO 14001 revision mandate, but in selected clauses wanted to emphasize the focus on improving operational performance. It was agreed to use the phrase “to enhance environmental performance” in those clauses where WG5 agreed to add emphasis.

6. What is expected in clauses 4.1, 4.2 and 6.1?

The expectation begins with a conceptual understanding followed by a more detailed determination. For example, the expectation in 4.1 and 4.2 is for a conceptual understanding of the issues and interested party requirements that are relevant to the organization. Regarding 6.1, the intent is that a detailed determination of significant environmental aspects (6.1.2) and compliance obligations (6.1.3) is carried out. Consistent with “risk-based thinking”, the intent of 6.1.1 is to generate a conceptual analysis of the “risks and opportunities” associated with other issues and requirements. There is no requirement or expectation for a detailed risk assessment.

7. What is the intent of the new phrase "person(s) doing work under its control"?

As set out in the Annex, A.3, the phrase "person(s) doing work under its control" includes persons working for the organization and those working on its behalf for which the organization has responsibility (e.g. contractors). It replaces the phrase "persons working for it or on its behalf" and "persons working for or on behalf of the organization" used in the prior edition of ISO 14001. The intent of this new phrase does not differ from that of the previous edition.

8. What does "intended outcomes of the EMS" mean?

In Clause 1, Scope, the concept of "intended outcomes" is introduced. Further explanation is provided in Annex, A.3. The phrase "intended outcome" expresses what the organization is expected to achieve by implementing its environmental management system. The three minimal "intended outcomes" include enhancement of environmental performance, fulfilment of compliance obligations and achievement of environmental objectives. Organizations can set additional intended outcomes for their environmental management system. For example, consistent with their commitment to protection of the environment, an organization may establish an intended outcome to work towards sustainable development.

TERMS & DEFINITIONS

9. How are the terms and definitions ordered in clause 3?

As set out in ISO/IEC Directives, Part 2, terms and definitions are listed according to the hierarchy of the concepts (reflecting the sequencing of their introduction in the standard). In the case of ISO 14001:2015, terms are grouped by major clause title (i.e. Context of the Organization, Leadership, Planning, etc.). ISO/TC 207/SC 1/WG 5 agreed to order terms within the groupings such that (i) discipline-specified terms are presented consecutively after its generic form, and to the extent possible (ii) present terms in the order in which they appear in the text. WG5 inserted an "Alphabetical index of terms", which may be modified to reflect alphabetical listings in another language.

10. Why is the term "compliance obligations" used in the English version of ISO 14001 but "legal requirements and other requirements" used in some translations?

To address a translation issue for some languages, ISO/TC 207/SC 1/WG 5 agreed to add to the definition of "compliance obligation" the **admitted term** "legal requirements and other requirements". When preparing other language versions of ISO 14001:2015, National Member Bodies responsible for translation may choose to use the term that best conveys the meaning of the definition.

11. Is there a difference between the use of the term "compliance obligations" in ISO 14001 for environmental management and ISO 19600 for compliance management?

Yes. ISO/TC 207/SC 1/WG 5 modified the definition of this term by adding "Note 1 to entry (normative)" to clarify that "compliance obligations" in ISO 14001 are limited to just those requirements related to the environmental management system.

12. Does ISO 14001 treat the applications of an organization's various compliance obligations (e.g. mandatory requirements, voluntary requirements, etc.) the same?

Yes. ISO/TC 207/SC 1/WG 5 agreed that EMS clauses and associated provisions applied equally to:

- mandatory requirements such as regulations and legally binding requirements,
- obligations that you have no choice but to comply with, even though they aren't technically legally binding, such as directives set by a parent company to a subsidiary, or a corporate directive to various divisions,
- and voluntary requirements such as commitments the organization chooses to make.

WG5 did not want to distinguish these by either (1) establishing separate provisions (i.e., shall statements) for each or (2) providing redundant provisions for each.

13. What is an outsourced process?

An outsourced process differs from procured products and services. Specific conditions for an outsourced process were introduced in Annex A, A.8.1. It is "a process or function performed by an external organization that fulfils all of the following:

- it is within the scope of the environmental management system;
- it is integral to the organization's functioning;
- it is needed for the environmental management system to achieve its intended outcome;
- liability for conforming to requirements is retained by the organization, and
- the organization and the external provider have a relationship where the process is perceived by interested parties as being carried out by the organization."

CLAUSE SPECIFIC CONCEPTS

14. What is meant by "issues" in clause 4.1?

"Issues" include important topics for the organization, problems for debate and discussion or changing circumstances that can affect, either positively or negatively, the intended outcomes of the environmental management system.

- Environmental conditions, e.g. air, water, land, natural resources, are NOT the only issues relevant to an EMS.
- Issues can arise from non-environmental external and internal subjects, e.g. financial, technology, governance (see examples given in the Annex, A.4.1).
- Risks/opportunities are NOT issues; risks/opportunities arise from issues.

15. What is meant by the "organization's purpose"?

In 4.1 paragraph 1, the organization's "purpose" refers to why the organization exists, its "*raison d'être*". It covers the activities that are core to the organization's existence, and are often reflected in an organization's vision and mission.

16. What is expected as the output of clauses 4.1 and 4.2?

The output of these clauses is knowledge. This is a conceptual understanding of how internal and external issues, including environmental conditions, and relevant interested party requirements

may affect an organization's ability to achieve the intended outcomes of its EMS. This knowledge is used as an input to the design and improvement of the EMS.

Evidence of this knowledge appears in other sections of an organization's EMS, for example. It was agreed that 4.1 and 4.2 did not need documented information to meet the requirements. As each EMS is unique, an organization may decide, under 7.5.1, if additional documented information is needed for the effectiveness of its EMS.

17. What is the intent of clause 4.2?

Clause 4.2 is a strategic, exploratory step for an organization to gather information about interested parties in order to understand their relevant needs and expectations.

It was agreed in ISO/TC 207/SC 1/WG 5 that the organization determines its compliance obligations at a "conceptual level" in 4.2 based on knowledge of the relevant requirements of relevant interested parties. A detailed analysis of these requirements is conducted in 6.1.3. When referring to interested parties in 4.2, the term "requirements" was replaced with "needs and expectations". This was done to preserve the distinction between an interested party requirement that is a mandatory requirement (such as a law or permit condition) and one that the organization chooses to uphold (such as a contractual agreement). The decision to commit to interested party needs and expectations and then take them into account when designing its EMS remains in the hands of the organization.

18. What is the intent of considering clauses 4.1 and 4.2 when determining the scope of an EMS?

An organization retains the authority to determine the scope of its EMS. It has the autonomy to prioritize which of the issues identified in 4.1 and 4.2 it will address in its EMS. Clause 4.3 does not imply that the organization must work on all issues.

Further, it was agreed by ISO/TC 207/SC 1/WG 5 that the intent is to consider compliance obligations (the relevant interested party requirements that the organization has to or chooses to comply with), not necessarily all interested party requirements. Therefore, the phrase used the term "consider", not "take into account".

19. What is the intent of clause 4.3, determining the scope of an EMS?

"Scope" of the EMS includes the organization's functions, physical boundaries, and its activities, products and services to which ISO 14001 requirements will apply. It is common practice to consider the items described in the bullet points when establishing scope statements.

The long standing consensus position to allow organizations to phase-in EMS implementation was confirmed and preserved by ISO/TC 207/SC 1/WG 5 in the 2015 version of ISO 14001. To address the concern that some might "cherry-pick" activities, products and services to purposefully exclude those with significant environmental aspects, a requirement to make the scope available to interested parties was added to ensure transparency, and avoid misunderstanding.

Once the scope and boundaries of the EMS have been defined, no exclusion of activities, products or services within the defined scope is permitted. While an organization retains the freedom and flexibility to determine the boundaries of its scope, its conformance to ISO 14001:2015 should be based on a robust, credible and reliable EMS.

Consistent with the intent of the following requirement in ISO 14001:2004, 4.1, "the organization

shall ...determine how it will fulfil these requirements", ISO 14001:2015 preserves the concept that the organization retains the autonomy to decide **how** it will fulfil its EMS requirements. See Annex, A.4.3 and A.4.4 for further clarification.

20. What is the intent of the policy commitment to protect the environment?

ISO/TC 207/SC 1/WG 5 agreed

- that the intent was to have a policy commitment to protect the environment (the inclusive meaning as captured in the defined term 3.2.1) which **includes** the concept of "prevention of pollution" but could also include other concepts (i.e. sustainable resource use, climate change mitigation, etc.).
- to retain the emphasis on "prevention of pollution".
- that it is intended to cover something broader than "prevention of pollution" that implies positive, proactive efforts.

21. What is the intent of the requirement to determine "risks and opportunities"?

ISO/TC 207/SC 1/WG 5 agreed that:

- "risks and opportunities" are more than environmental risks (i.e. related to air, water, land, natural resources etc.), and can result from other non-environmental issues that pose risk.
- "risks and opportunities" are NOT always relevant to the EMS; only if they can affect the organization's purpose and the intended outcomes of the EMS.
- the intent is to determine and address the risks and opportunities associated with organizational context (i.e. "issues" from 4.1 and 4.2 that have the potential for (i) adverse effects (risks) or (ii) beneficial effects (opportunities) to the intended outcomes of the environmental management system, and to use this knowledge as one of the inputs to the prioritization of risks (threats) and opportunities.
- there is no requirement for a prescriptive risk management process in the standard.

Additional guidance on risks and opportunities is provided in the Annex, A.6.1.

22. What are some examples of criteria for determining that an environmental aspect is significant?

Environmental criteria (for example, toxicity, duration and likelihood of exposure, etc.) are the primary and minimum criteria for assessing environmental aspects. Other criteria may also be used (example: an aspect may not be significant when considering only environmental criterion but when other organizational issues are considered (such as threat of a noncompliance, or an opportunity to satisfy the needs and expectations of a relevant interested party), the aspect may take on a higher priority or greater importance for determining significance. However, other criteria are not to be used to downgrade an aspect that is significant based on its environmental impact.

23. Is the determination of risks and opportunities, environmental aspects and compliance obligations separate processes, or can they be consolidated?

The organization decides if they want to do separate analyses for sub-clauses 6.1.1 to 6.1.4 or

combine some (or all) of the analyses. ISO/TC 207/SC 1/WG 5 agreed not to imply that significant environmental aspects (the output of 6.1.2) or compliance obligations (the output of 6.1.3) need to undergo a second "filtering" step to determine the "risks and opportunities" that need to be addressed in 6.1.4. organization can determine risks and opportunities" related to issues, significant environmental aspects, and compliance obligations either separately or in combination, it is required that the organization plans a process and maintains documented information on the process (including the criteria used to determine significant environmental aspects) to the extent necessary to have confidence that the process has been carried out as planned. ISO 14001:2015 does, however, require the output of the process (or processes) to be documented.

24. What is the relationship between clauses 4.1, 4.2, 6.1 and 8.1?

Clauses 4.1 and 4.2 provide knowledge which the organization uses in 6.1 to determine risks and opportunities that need to be addressed, significant environmental aspects, including application of a life cycle perspective, and compliance obligations in 6.1. These are inputs to 6.1.4 and 8.1 which is focused on the implementation of operational controls needed to address the planned actions identified in 6.1.4.

25. Why were the business considerations moved out of the clause on environmental objectives?

ISO/TC 207/SC 1/WG 5 agreed that an organization had various options when planning actions to take in 6.1.4. The considerations for environmental objectives (i.e. technological options, etc.) apply to all these options, and therefore were moved to 6.1.4.

26. Now that an organization plans actions to address risks and opportunities, compliance obligations and significant aspects, are environmental objectives required?

ISO/TC 207/SC 1/WG 5 agreed that an organization had various options when planning actions to take in 6.1.4, but an environmental objective had to be established as a minimum.

WG5 agreed that taking into account significant environmental aspects, compliance obligations and considering risks and opportunities when setting the environmental objectives did not imply repeating the determination of which significant environmental aspects, compliance obligations and risks and opportunities need to be addressed (these were determined in 6.1).

27. Why aren't the topics that are required to be communicated listed in clause 7.4?

Following the Annex SL model for placing requirements for documented information, requirements for communicating a particular topic are placed in the clause corresponding to where that topic is discussed, and not summarized in 7.4.

28. Does clause 8.1 impose requirements on external providers?

ISO standards can only impose requirements on the organization adopting the standard. 8.1 focuses on the internal processes that can be used to influence external providers, not on controlling the external providers' processes. The term "external providers" was used to encompass the suppliers of either procured products and services or outsourced processes, and to align with ISO 9001.

29. Why does ISO 14001 include a new requirement for design?

ISO/TC 207/SC 1/WG 5 agreed that operational planning and control should address design activities because important decisions are made that can potentially affect the environmental impacts at each stage of the product and service life cycle.

30. Does ISO 14001 require the organization to communicate its environmental impacts to everyone in its value chain?

No. An organization has the flexibility to provide information on potential significant environmental impacts during the delivery, use, and end-of-life stage; hence the phrase "consider the need" was retained.

31. Did ISO 14001:2015 remove the 2004 requirement to identify potential emergency situations?

No. It was agreed that the requirement to identify potential emergency situations was better aligned with the Plan phase of the PDCA model, rather than the control phase, so it is now covered in 6.1.1.

32. Does clause 9.3 d) 4) apply only to internal EMS audits or is the intent to include information on both internal and external EMS-related audits?

The intent when using the term "audit" in 9.2.2 refers to internal audits conducted by the organization or on its behalf only (consistent with the title of sub-clause), whereas in 9.3 it refers to both internal and external EMS-related audits (i.e., 1st, 2nd and 3rd party).

33. What is the intent of the phrase "continual improvement of the environmental management system to enhance environmental performance"?

ISO/TC 207/SC 1/WG 5 agreed that the ultimate goal of system improvement is that it results in environmental performance improvement. WG5 also agreed that EMS improvement can include environmental performance improvement. It was noted that in some cases the intent of a requirement focused on EMS improvement, while in others the intent was to emphasize environmental performance improvement. -

WG5 therefore used the following:

Where the term "continual improvement" is used on its own, the intent is to focus on both EMS improvement and environmental performance improvement, with *no particular emphasis* on either.

Where the phrase "continual improvement of the environmental management system" is used on its own, the intent is to focus on just environmental management system improvement.

Where the phrase "enhance environmental performance" is used on its own, the intent is to focus on just environmental performance improvement

Where the phrase "continual improvement of the environmental management system to enhance its environmental performance" is used, the intent is to focus on both EMS improvement and environmental performance improvement, with *added emphasis* on performance improvement.