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|  | | ISO FORM 4 |
| **NEW WORK ITEM PROPOSAL (NP)** |
| **DATE OF CIRCULATION:** Click here to enter a date. | | **CLOSING DATE FOR VOTING:** Click here to enter a date. |
| **PROPOSER:**  ISO member body:  国家标准委（SAC）  Committee, liaison or other:  Click or tap here to enter text. | | **REFERENCE NUMBER:** Click or tap here to enter text.  **WITHIN EXISTING COMMITTEE**  Document Number: ISO/TC 282  Committee Secretariat: SAC  **PROPOSAL FOR A NEW PC** |
| A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee.  A proposal for a new project committee shall be submitted to the Central Secretariat, which will process the proposal in accordance with ISO/IEC Directives, Part 1,[Clause 2.3](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top).  Guidelines for proposing and justifying new work items or new fields of technical activity (Project Committee) are given in ISO/IEC Directives, Part 1, [Annex C](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top).  **IMPORTANT NOTE:** Proposals without adequate justification and supporting information risk rejection or referral to the originator. | | |
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| **PROPOSAL**  (to be completed by the proposer, following discussion with committee leadership if appropriate) | | |
| English title | | |
| 水再利用 水平衡测试指南 | | |
| French title | | |
| Click or tap here to enter text.  (Please see ISO/IEC Directives, Part 1, [Annex C](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top), Clause C.4.2).  In case of amendment, revision or a new part of an existing document, please include the reference number and current title | | |
| **SCOPE**  (Please see ISO/IEC Directives, Part 1, [Annex C](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top), Clause C.4.3) | | |
| 该提案提供了用水组织或系统的水平衡测试技术指南，即对用水组织或系统的水量进行系统的测量、统计和计算，根据水量水质平衡原理，分析查找问题并提出水梯级回用持续改进建议。本文件规定了水平衡图示与方程式、水平衡测试程序与方法。适用于工业、服务业、农业等各领域的组织或系统，包括但不限于园区、企业、商业综合体、酒店等组织，以及循环冷却水、灌溉、水回用等系统。本文件通过有效的水平衡测试，确保回用水在各个环节中的梯级应用，提升资源利用效率，最大限度减少水的浪费。 | | |
| **PURPOSE AND JUSTIFICATION**  (Please see ISO/IEC Directives, Part 1, [Annex C](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top) and additional guidance on justification statements in the brochure [Guidance on New Work](https://www.iso.org/publication/PUB100438.html)) | | |
| 水资源短缺已经成为一个日益严峻的全球性问题。根据联合国的数据，全球超过40%的人口面临水资源短缺问题，且随着气候变化和全球气温的持续上升，预计这一比例将进一步增加。为应对这一挑战，联合国可持续发展目标（SDGs）中设定了目标6.3和6.4，旨在大幅增加循环利用，提高用水效率。此外，目标6.5强调了实施综合水资源管理在各级水资源保护和利用中的关键作用。 各国也已采取积极行动，欧盟通过《水框架指令》建立了统一的水资源治理框架，以促进水资源的可持续利用；澳大利亚国家水资源管理政策与行动旨在通过市场机制、提高水效率和可持续水资源管理等措施，优化水资源的配置。这些举措不仅彰显了全球在水资源保护方面的共同决心，也为未来水资源的可持续管理提供了宝贵经验。 国际上，水相关的标准或文件主要包括：ISO 14046:2014《环境管理—水足迹—原则、要求与指南》为水足迹评估提供了国际标准，指导组织如何量化和评估其活动、产品或服务在生命周期中的水资源使用及其潜在影响；AWWA M36手册，则专注于水量审计和漏水控制，主要面向水务管理人员和专业人士。 传统的水资源节约主要侧重于直接节水，即通过减少用水量来减少水的总体需求。然而，随着全球水资源短缺问题的日益严重，仅仅依赖直接节水已经无法满足未来可持续发展的需求，因此，增强水回用成为当前水资源管理的另一重要策略。在这一背景下，水平衡测试作为一种科学的评估和优化工具，能够帮助识别和优化水的使用效率，是水回用的重要手段。通过准确测量水的输入、使用和输出，确保整个组织或系统内水量的流动高效且没有浪费，并为组织或系统的优化提供数据支持，揭示潜在的水回用路径和水量损失问题。根据不同环节水质要求，回用水可以通过直接回用、简单处理回用或深度处理回用等不同方式，最大限度减少对新水的需求。 然而，国际上目前关于水平衡测试技术的相关方法仍缺乏统一的技术标准和操作规范。这一现状导致各地区和企业在水效评估与提升过程中存在显著差异，影响了水资源利用效率的全面优化与可持续发展。 在中国，已发布GB/T 12452-2022《水平衡测试通则》等三项水平衡测试相关国家标准，并在宾馆、学校等服务业工业以及行业、水泥、钢铁等工业领域开展了广泛的示范应用，且在GB/T 42866-2023《煤化工废水处理与回用技术导则》等水回用标准已将水平衡测试作为重要依据，成功构建了成熟的水平衡测试技术体系。同时，通过标准的宣贯和相关系统的开发，进一步推动了水平衡测试技术的规范化与智能化应用，提升了各行业的水效水平。水平衡测试技术不仅适用于中国国内环境，也具有很高的国际推广价值。因此，计划结合相关中国标准，基于TC282框架提出国际标准提案，旨在为全球各行业提供可参考的技术规范。 本提案的制定将进一步促进各国提升水资源利用效率，推动水资源的合理、高效利用和保护，并支持全球可持续发展的广泛目标。此外，通过国际标准的实施，增强全球共同应对水资源挑战的能力。 (Please use this field or attach an annex) | | |
| **PROPOSED PROJECT LEADER** (name and email address) | | |
| 白雪,邮箱：baixue@cnis.ac.cn | | |
| **PROPOSER** (including contact information of the proposer’s representative) | | |
| 肖寒 Director General, Department of Standards Innovative Management, SAMR/SAC 邮箱：sac\_82261017@126.com | | |
|  | **The proposer confirms that this proposal has been drafted in compliance with ISO/IEC Directives, Part 1, Annex C** | |
| **PROJECT MANAGEMENT**  Preferred document   |  |  | | --- | --- | |  | International Standard | |  | Technical Specification | |  | Publicly Available Specification\* |   \* While a formal NP ballot is not required (no eForm04), the NP form may provide useful information for the committee P-members to consider when deciding to initiate a Publicly Available Specification.  Proposed Standard Development Track (SDT – to be discussed by the proposer with the committee manager or ISO/CS)  18 months  24 months  36 months  Proposed date for first meeting: 2025-12-01  Proposed TARGET dates for key milestones   * Circulation of 1st Working Draft (if any) to experts: 2025-12-01 * Committee Draft consultation (if any): 2027-05-01 * DIS submission\*: 2028-12-01 * Publication\*: 2029-01-01   \* Target Dates for DIS submission and Publication should be set a few weeks ahead of the limit dates automatically determined when selecting the SDT.  It is proposed that this DOCUMENT will be developed by:   |  |  | | --- | --- | |  | An existing Working Group, add title Click or tap here to enter text. | |  | A new Working Group Click or tap here to enter text.  *(Note that the establishment of a new Working Group requires approval by the parent committee by a resolution)* | |  | The TC/SC directly | |  | To be determined | |  | This proposal relates to a new ISO document | |  |  | |  | This proposal relates to the adoption, as an active project, of an item currently registered as a Preliminary Work Item | |  | This proposal relates to the re-establishment of a cancelled project as an active project | |  | Other: Click or tap here to enter text. |   Additional guidance on project management is available [here](https://connect.iso.org/display/standards/Project+management). | | |
| **PREPARATORY WORK**   |  |  | | --- | --- | |  | A draft is attached | |  | An existing document serving as the initial basis is attached | |  | An outline is attached | |  | Note: at minimum an outline of the proposed document is required |   The proposer is prepared to undertake the preparatory work required:  Yes  No  If a draft is attached to this proposal:  Please select from one of the following options:   |  |  | | --- | --- | |  | The draft document can be registered at Preparatory stage (WD – stage 20.00) | |  | The draft document can be registered at Committee stage (CD – stage 30.00) | |  | The draft document can be registered at enquiry stage (DIS – stage 40.00) | |  |  | |  | If the attached document is copyrighted or includes copyrighted content, the proposer confirms that copyright permission has been granted for ISO to use this content in compliance with [clause 2.13](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top) of ISO/IEC Directives, Part 1 (see also the [Declaration on copyright](https://www.iso.org/declaration-for-participants-in-iso-activities.html)). | | | |
| **RELATION OF THE PROPOSAL TO EXISTING INTERNATIONAL STANDARDS AND ON-GOING STANDARDIZATION WORK**  To the best of your knowledge, has this or a similar proposal been submitted to another standards development organization or to another ISO committee?  Yes  No  If Yes, please specify which one(s) Click or tap here to enter text.  The proposer has checked whether the proposed scope of this new project overlaps with the scope of any existing ISO project  If an overlap or the potential for overlap is identified, the proposer and the leaders of the existing project have discussed on:   1. modification/restriction of the scope of the proposal to avoid overlapping, 2. potential modification/restriction of the scope of the existing project to avoid overlapping.   If agreement with parties responsible for existing project(s) has not been reached, please explain why the proposal should be approved Click or tap here to enter text.  Has a proposal on this subject already been submitted within an existing committee and rejected? If so, what were the reasons for rejection? Click or tap here to enter text.  This project may require possible joint/parallel work with  IEC (please specify the committee) Click or tap here to enter text.  CEN (please specify the committee) Click or tap here to enter text.  Other (please specify) Click or tap here to enter text. | | |
| **Select any UN Sustainable Development Goals (SDGs) that this proposed project would support** (information about SDGs, is available at [www.iso.org/SDGs](http://www.iso.org/SDGs)) and explain how the proposed document relates to the identified SDG(s) and their associated targets.  GOAL 1: No Poverty  Click or tap here to enter text.  GOAL 2: Zero Hunger  Click or tap here to enter text.  GOAL 3: Good Health and Well-being  Click or tap here to enter text.  GOAL 4: Quality Education  Click or tap here to enter text.  GOAL 5: Gender Equality  Click or tap here to enter text.  GOAL 6: Clean Water and Sanitation  6.3 到 2030 年，通过减少污染、杜绝倾倒、最大限度地减少有害化学品和材料的排放、 将未经处理的废水比例减半、在全球范围内大幅增加回收利用和安全再利用，来改善水质。  6.4 到 2030 年，大幅提高所有部门的用水效率，确保淡水的可持续抽取和供应， 以解决缺水问题，并大幅减少因缺水而受苦的人数  6.5 到 2030 年，在各级实施水资源综合管理，包括酌情开展跨界合作  GOAL 7: Affordable and Clean Energy  Click or tap here to enter text.  GOAL 8: Decent Work and Economic Growth  Click or tap here to enter text.  GOAL 9: Industry, Innovation and Infrastructure  Click or tap here to enter text.  GOAL 10: Reduced Inequality  Click or tap here to enter text.  GOAL 11: Sustainable Cities and Communities  Click or tap here to enter text.  GOAL 12: Responsible Consumption and Production  Click or tap here to enter text.  GOAL 13: Climate Action  Click or tap here to enter text.  GOAL 14: Life Below Water  Click or tap here to enter text.  GOAL 15: Life on Land  Click or tap here to enter text.  GOAL 16: Peace, Justice and strong institutions  Click or tap here to enter text.  GOAL 17: Partnerships for the goals  Click or tap here to enter text.  No SDG concerned | | |
| **Identification and description of relevant affected stakeholder categories**  (Please see [ISO CONNECT](https://connect.iso.org/display/standards/Stakeholders+and+liaisons))   |  |  | | --- | --- | |  | Benefits/Impacts/Examples | | Industry and commerce – large industry | 该标准将为大型工业提供了科学、标准化的水平衡测试技术方法，企业可以大幅度降低新水需求，优化水资源的利用效率，减少环境负担。分质处理和分级回用的应用，能够根据不同水质要求对水资源进行合理分类处理，并以最合适的方式进行回用，如将工业用水、生活用水、清洗水等分别进行不同层次的处理，最大限度提高水资源的循环利用率。这不仅有助于提升企业的环境责任感和社会形象，还能增强其市场竞争力。 | | Industry and commerce – SMEs | 对于中小企业而言，该标准将为其提供标准化的水资源管理方法，通过提升水回用效率，优化水资源的使用，减少资源浪费，降低运营成本。同时，该标准有助于企业提高可持续发展能力，增强企业社会责任感。 | | Government | 该标准为政府在解决城市水资源短缺问题上提供了技术支持，帮助加强水资源的管理与监控，确保各行业在用水方面遵循相关标准，优化水资源配置，推动节水政策的落实。在城市用水方面，分质水回用系统可以有效降低水资源消耗，推动城市水资源的可持续利用，减少新水的需求，尤其在水资源稀缺的地区，这种分质处理和回用的模式将有助于保障公共资源的可持续性与公平性。 | | Consumers | 该标准的实施能够促进企业节水减排，改善产品质量，最终使消费者享受到更加环保、可持续的产品和服务，从而提升生活质量和消费体验。 | | Labour | 该标准还将帮助从业人员通过标准化操作，提升其专业技能与节约意识，确保水资源利用的合规性，减少资源浪费。 | | Academic and research bodies | 学术研究机构可以借助该标准，建立规范化的研究框架，进一步深入探索水资源管理、节水技术及其在各行业中的应用。这为科学研究提供了基础数据和理论支持，推动相关学科的研究与发展。 | | Standards application businesses | 标准应用企业通过采纳该标准能够增强水资源管理的科学性与透明度，提高产品和服务的标准化水平，确保符合国内外环境标准，提升品牌形象，吸引更多投资和客户。通过实施水回用和分质处理措施，企业不仅在环保方面表现出色，还能通过减少资源消耗降低运营成本，增强市场竞争力。 | | Non-governmental organizations | 非政府组织通过该标准可以推动企业和政府采取更有效的水回用等水效提升措施，促进水资源的合理利用与保护，改善水环境，强化公众和企业的环保意识，推动可持续发展目标的实现。 | | Other (please specify) | Click or tap here to enter text. | |  |  | | | |
| **Listing of countries where the subject of the proposal is important for their national commercial interests** (Please see ISO/IEC Directives, Part 1, [Annex C](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top), Clause C.4.8)  Click or tap here to enter text. | | |
| **Listing of external international organizations or internal parties (other ISO and/or IEC committees) to be engaged in this work** (Please see ISO/IEC Directives, part 1, [Annex C](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top), Clause C.4.9)  Click or tap here to enter text. | | |
| **Listing of relevant documents (such as standards and regulations) at international, regional and national level** (Please see ISO/IEC Directives, Part 1, [Annex C](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top), Clause C.4.6)  (1)ISO 14046:2014 - 环境管理—水足迹—原则、要求与指南 (2)GB/T 12452-2022 - 水平衡测试通则 (3)GB/T 36536-2018 - 水泥生产企业水平衡测试方法 (4)GB/T 42031-2022 - 用水单位水平衡图绘制方法 (5)AWWA M36 Manual - 水量审计和漏水控制 | | |
| **ADDITIONAL INFORMATION**  **Maintenance Agencies (MAs) and Registration Authorities (RAs)**   |  |  | | --- | --- | |  | This proposal requires the designation of a maintenance agency. If so, please identify the potential candidate: | |  | Click or tap here to enter text. | |  | This proposal requires the designation of a registration authority. If so, please identify the potential candidate | |  | Click or tap here to enter text. |   NOTE: Selection and appointment of the MA or RA are subject to the procedure outlined in ISO/IEC Directives, Part 1, [Annex G](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top) and [Annex H](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top).  **Known patented Items** (Please see ISO/IEC Directives, Part 1, [Clause 2.14](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top))  Yes  No  If Yes, provide full information as an annex  **Is this proposal for an ISO management System Standard (MSS)?**  Yes  No  Note: If yes, this proposal must have an accompanying justification study. Please see the Consolidated Supplement to the ISO/IEC Directives, Part 1, [Annex SL](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top) or [Annex JG](https://www.iso.org/resources/publicly-available-resources.html?t=712usHn2eATZXjtj0c3FIJ16gvWZXP-_fykOV8H1WAolmA84oAGBwILzOVFUEc46&view=documents" \l "section-isodocuments-top) | | |