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TITLE : Process Guide for API-CRE/ISO coordination – Final version

SOURCE : Ad-Hoc Group to improve API-CRE/ ISO Coordination

NOTE : Further to resolution 418, Process Guide & Flowcharts have been developed by the Ad-Hoc Group. These documents have been drafted in order to better understand the processes within ISO and API-CRE, and therefore to facilitate the API-CRE/ISO Coordination.
These documents have been proposed to ISO/TC 67 SC6 (balloted in Doc N 752), and accepted by API-CRE during its Fall 2006 meeting. Some changes have been included (further to the comments expressed – se doc N 759).

This document has also been posted on the API/CRE- ISCC webpage (http://committees.api.org/standards/cre/iscc/iscchm.html.)

ACTION : For information

DISTRIBUTION : ISO/TC 67 SC 6 members & ISO/TC 67

Process Guide for API-CRE/ISO Coordination

Background

This Process Guide has been approved by the API Committee on Refinery Equipment (API CRE) and the ISO/TC 67 Subcommittee 6 and provides basic information and direction to API-ISO activities to ensure that the objectives of the API CRE and ISO/TC 67/SC6 are met with respect to producing unified international standards. Specifically, the guide addresses the key elements of the overall process and directs the user to more detailed procedural guidelines when required. The agreed-upon Terms of Reference (TOR) of the ad hoc group that developed this document state that the purpose of the guide is to:

(1) Facilitate the development and maintenance of one set of internationally acceptable standards, and
(2) Minimize the number of standards published separately or out of sync by API and ISO.

As background, experiences gained from the CRE International Standards Coordinating Committee (ISCC) deliberations indicate that the key to success is to provide straightforward information to the ISO Working Group (WG) Convenors, Project Leaders (PL), and other participants and to ensure adequate information flow on updates and revisions. The following seven items, specifically identified by the ad hoc group, are consistent with the objectives of the ISCC in the report presented to the CRE at the fall 2003 Refining Meeting:

- Overall process flowchart
- Responsibility and accountability during co-branding process
- Resolve delays and problems for co-branding identified in ISCC report
- Obtain editing resources
- Changes to N435 with ISCC report recommendations
- Agreements between SC6 and CRE chairs
- Best practices from ISCC report

The guide is organized into ten sections. Each section addresses a specific action that has been identified as an area of concern. Seven of these relate to the facilitation of API-CRE committee and volunteer efforts with regard to ISO. Another two address API organizational issues associated with staff and committee management. The last section includes several process flowcharts.

(1) API organizational structure to address ISO administration, including U.S. TAG coordination with the American National Standards Institute (ANSI).
(2) API process for determining whether a new or revised API standard should enter the ISO work program.
(3) ISO and API requirements and documentation for submitting a new work item proposal (NWIP).

(4) ISO and API requirements for nomination of experts to ISO WGs.
(5) Determining the stages of balloting necessary for an ISO document.
(6) API policy for identifying and compensating individuals for travel and participation in ISO activities.
(7) API support for editing text, creating graphics/figures and metrication.
(8) Special requirements associated with the management of joint working groups (JWGs).
(9) ANSI and API national adoption procedures and options
(10) Work process flowcharts

1. API organizational structure to address ISO administration, including U.S. (Technical Advisory Group) TAG coordination with ANSI.

Discussion

In recognition of the need for a more coordinated approach to all ISO/TC 67 activities, the API Standards and Publishing Departments have made several organizational changes in order to more effectively manage both process and editorial issues. Under API's Manager of International Standards and Measurement, the International Standards Associate has the responsibility of coordinating the U.S. votes for ISO/TC 67 and all of its related subcommittees (SCs) and workgroups (WGs). The associate will maintain the line of communication between ISO and API, ensuring that ballots are issued to the appropriate U.S. committees and that consensus has been reached before transmitting the votes to ANSI.

The *Operating Procedures for the U.S. Technical Advisory Group (USTAG) to ISO/TC 67* has been updated to reflect a new structure for the TAG which includes a Policy TAG and Subject Area TAGs. The Subject Area TAGs are aligned with industry segments and the API standards committees.

API roles and responsibilities

- Director of Standards—Overall responsibility for strategic management of API's standards program and liaison with ISO/TC 67.
- International Standards Manager—Oversight of API's participation in specific ISO standards developing activities and management of liaisons with other organizations such as ASTM and the Energy Institute.
- International Standards Associate—Overall process management and procedural support for international standards activities.
- Standards Associate—Provides liaison with API committee to facilitate U.S. (ANSI/API) and international (ISO) standards activities.

References

- *Operating Procedures for the U.S. Technical Advisory Group to ISO/TC 67*

2. API process for determining whether a new or revised API standard should enter the ISO work program

Discussion

The API-ISO Standards Submittal Review Process is designed to determine at the very earliest stages the level of support and interest the API Committee on Refinery Equipment may have in participating and supporting the submission of an API standard as the base document for an ISO standard. The process is used to determine the level of interest, whether the request is from an API committee or from an outside source. The submittal form contains three sections.

In **Section 1**, three questions are asked concerning the interest in, and ability of, an API committee to participate in the ISO process.

The first question relates to whether or not this activity will result in a U.S. national adoption of the resulting ISO standard. This is the first "gate," as it indicates a commitment to avoid duplicative work and the intent to use the resultant ISO standard as the ballot draft eligible for consideration as an American National Standard. If the ballot is successful, it will result in a new or revised API standard, whether identical to or a modification of the ISO standard.

The second question asks if there are any conditions to the standards submittal, for example, if the document is to be submitted only if it will proceed directly to the DIS stage. Note, however, that while the API committee may choose to establish such a condition, it does not guarantee that the condition will be accepted when balloted in ISO.

The third question establishes the standard's eligibility for submittal under the API-ISO Pilot Project. To be eligible, the standard

- Must be under the direct purview of ISO/TC 67 (not part of a joint work group),
- Must not already be on the work program of ISO/TC 67 nor be a "frozen" work item, and
- Must not be subject to the Vienna Agreement unless the TC has assurances that CEN can confirm that the document can be adopted as a European norm.

In **Section 2,** if the answer to Question 1 in Section 1 is affirmative, and responses to Questions 2 and 3 pose no impediments, then the result is that API will license its intellectual property to ISO and its member bodies for use as the basis for an ISO standard. The names of the U.S. technical expert(s) are also provided.

If the answer to Question 1 in Section 1 is negative, then other considerations may be taken into account understanding that the answers to Questions 2 and 3 pose no impediments. For example, if the API standard requested is obsolete, and no interest has been expressed in updating it, API may allow its submission. Other examples which may result in API allowing standards to be submitted include new standards that will contain

advanced technology beneficial to industry, or requests of negligible portions of API documents.

In **Section 3**, the results of the review are recorded.

API roles and responsibilities

- API committee nominates standard to API for consideration.
- API associate responsible for base API standard works with the nominated API Committee member(s) to complete the form.
- API Standards Director reviews form, considers request, and advises API Committee member(s) and Associate of decision.

References

- *API–ISO Standards Submittal Review Process*
- *API–ISO Standards Submittal Review Form*
- *API–ISO Standards Submittal Review Flowchart*

3. ISO and API requirements and documentation for API submitting a New Work Item Proposal (NWIP)

Discussion

If the proposal is for a new ISO document, an outline or a first working draft should be submitted with the NWIP form. This may be an existing (non-ISO) document or it may be a new draft completed by a group of international experts. If the NWIP is for a revision of an existing ISO document or published API standard, an outline shall be attached in order to provide a basic understanding of the changes proposed. When an existing API standard is the basis for a proposed ISO standard, an API–ISO Standards Submittal Review Form must be completed for copyright release approval.

It is strongly recommended that *prior* to submitting the NWIP, experts from five ISO/TC 67 (or appropriate SC) P-members should be identified in order to ensure adequate industry support. For the ballot to pass, at least five ISO/TC 67/ SC P-members must nominate an expert with their ballot. See Section 4 for information on nominating an expert.

See Section 5 regarding the possibility of proceeding directly to the CD or DIS stage. P-members who have already indicated their intention to participate may be listed in the cover letter from the ISO/SC secretary.

A tentative first WG meeting date should be proposed to ensure that momentum is not lost.

NWIP ballots are 3 months in duration.

WG meetings require at least 6 weeks notice.

NWIPs must include a nomination for ISO Project Leader (PL).

API roles and responsibilities

- API associate works with API committee member to complete an NWIP form including a determination as to whether the existing document is mature enough to submit directly to CD or DIS stage.
- API associate ensures that proper copyright releases are obtained, if necessary, and appropriate documentation is attached to the new work item form.
- API associate forwards the package to the responsible ISO/TC 67/ SC Secretariat for balloting.

References

- *ISO/IEC Directives , Part 1, Procedures for the technical work*
- *ISO/TC 67 Policies and Procedures Guide (ISO/TC 67 N 435)*

4. ISO and API requirements for nominating an expert to an ISO WG

Discussion

Nominating a U.S. expert to an ISO working group is a responsibility of the U.S. Technical Advisory Group (TAG). The nomination is usually submitted during the NWIP balloting process and is shown on the ballot form. While experts act in a personal capacity and not as the official representative of the P-member organization, it is recommended that they maintain close contact with that organization in order to keep them apprised of the progress of work and the various opinions expressed in the working group at the earliest possible stage.

For the development of an ISO standard intended for U.S. national adoption as a co-branded ISO/API standard, the U.S. membership of the ISO WG shall be the appropriate API taskforce.

API roles and responsibilities

- API committee will nominate an expert(s), if appropriate, by forwarding the name(s) and contact information to the API associate at the time of the U.S. TAG ballot.
- API associate complete the NWIP form based upon the TAG ballot responses, and forward the completed ballot form and expert nominations to ANSI for submission to ISO.

References

- *ISO/TC 67 Policies and Procedures Guide (ISO/TC 67 N 435*
- *ISO/IEC Directives , Part 1, Procedures for the technical work*

5. Criteria for skipping balloting stages

Discussion

The following is a summary of the process to set up initial balloting (this is part of an NWIP). NWIPs are balloted to all ISO/TC 67 or SC member countries. Also discussed are the criteria for approval and additional information on allowance to skip the Final Draft International Standard (FDIS) ballot stage.

NWIP Criteria 1: Totally New ISO Document (with or without an existing API document)

The API taskforce (TF) chair shall inform API if a draft document currently exists. If no such document exists, the TF will develop an outline or a draft document before submitting an NWIP. The API TF will propose a PL.

If the API TF considers the draft, if any, to be sufficiently mature, the proposed PL will recommend whether to proceed directly to the CD or DIS stage. This will be reflected on the NWIP.

See Section 3 for the NWIP procedure.

NWIP Criteria 2: Revision to an Existing ISO Document

The proposed PL shall provide a summary of the subjects to be considered for revision. If the revision to an existing ISO standard is to be based on a more current API document, the API document should be referenced on or attached to the NWIP and serves as the summary.

If the API TF considers the proposed changes to be sufficiently developed, or if there is an expectation that the changes will be relatively minor, the proposed PL will recommend whether to proceed directly to the CD or DIS stage. This will be reflected on the NWIP.

See Section 3 for the NWIP procedure.

Criteria to skip the Final DIS (FDIS) Stage

Documents that fall under the Vienna Agreement (ISO-CEN cooperation agreement) may not skip the FDIS stage (documents that are in this category are required to be circulated for FDIS as this corresponds to the CEN Formal Vote). API will inform the PL or task group if the document is under the Vienna Agreement.

If the document is *not* under the Vienna Agreement, the FDIS stage may be skipped if the document was approved with no negative votes, and minimal (or no) technical comments at DIS (100% approval). This is subject to the approval of the TC subcommittee chairman and the ISO Central Secretariat Technical Programme Manager.

API Roles and responsibilities

- API committee member work with API associate to complete the NWIP form.
- API associate ensures that a draft is available for a new project, or that a detailed outline of changes is available for a revision.
- API associate will decide, in conjunction with the API committee member, to make a recommendation as to the maturity of the document and if it should be submitted to DIS.
- In the event of 100% approval at DIS stage and no technical comments, the API associate will research if the document falls under the Vienna Agreement and inform the API committee member if it is possible for the document to skip FDIS stage.

References

- *ISO/IEC Directives , Part 1, Procedures for the technical work*
- Agreement on Technical Co-operation between ISO and CEN (Vienna Agreement)
- *ISO/TC 67 Policies and Procedures Guide (ISO/TC67 N 435)*

6. API policy for identifying and compensating individuals for travel and participation in ISO activities

Discussion

Currently, API's policy is not to reimburse meeting participants as their travel expenses are considered a normal part of their company's support for the standardization activity. This issue may be revisited however, in cases of unique or special circumstances.

7. API support for editing text, creating graphics/figures and metrication

Discussion

1. Text evaluation

The purpose of the editorial review is to assure that the proposed document conforms to ISO Directives: Part 2 as well as with ISO/TC 67 Policies and Procedures and ISO/TC 67 Editing Protocols. This assures uniformity and consistency throughout the entire ISO portfolio.

For ISO standards with an API PL, draft documents shall be forwarded by the PL to the responsible API Associate for an editorial evaluation. The API Associate will determine the extent of the editing required, and decide whether to handle it in-house or to use a contractor. The editorial review and subsequent editing shall be funded by API.

2. Graphics/Figures

If the proposed document is a revision of an existing ISO document, the responsible API Associate will endeavor to obtain previously published figures from the ISO Central Secretariat (CS). These will be forwarded to the PL for review and recommendations for modifications necessary as part of the revision process.

API editorial staff will ensure that any figures provided from an outside source (i.e. directly from the PL or committee members) are in AutoCAD format and in compliance with the formatting requirements in ISO Directives: Part 2.

API will create or modify figures, where possible. If figures do not exist and cannot be created in-house, the responsible API staff will arrange for the work to be done by a contractor.

3. Conversion to International Standard (SI) Units

API staff will verify whether the technical experts have any resources available to carry out conversions. If not, API staff will assist the PL in making the requisite SI conversions. As an alternative, funding requests may be made through the appropriate API management committee for contracted experts to assist in this process as well.

4. Flowcharts and datasheets

ISO Central Secretariat accepts the following formats for flowcharts (in order of preference):

1. **Flowcharts** produced in AutoCAD format (.DWG).

2. **Flowcharts** produced in MS VISIO format (.VSD). The current procedure would allow these flowcharts to be transformed into CAD, with exceptions being treated individually.
3. **Flowcharts** made in MS PowerPoint (.PPT) can be designed as "dynamic", meaning that the connectors remain when the flowchart is being modified. These remain dynamic and copy well into the ISO STD Template and other MS WORD documents.
4. **Flowcharts** can also be made in MS WORD, see link for details (LINK) but note that the connectors are not dynamic (i.e. they do not move if/when the shapes are moved/resized.
5. **Flowcharts** made using the MS TABLE tool are not stable and should be avoided if possible.

There is a possibility that the flowchart submitted may be transformed into a CAD file, but ISO will be responsible for that process. Specific format requirements will be considered by the API staff person responsible for the document, in liaison with the ISO Central Secretariat production team.

Datasheets (i.e. those which require physical input by the standards user) may be produced in MS EXCEL format (note that Tables containing data only should continue to be submitted in MS WORD TABLE format and within the ISO template. Maximum size should be in line with the ISO STD Template minus the template's default margins and gutter values. The committee may identify a maximum size, if so wished. The intention is for the datasheets to be included in the standard (EXCEL embedded into WORD), as usual, and at the committee's option, and have them separately available. A watermark or other distinguishing feature can be considered to help authenticity.

5. Outsourcing

API will identify resources for providing document formatting and editing support, conversion of large tables, complex equations, etc. and outsource as necessary.

API roles and responsibilities

- API committee member responsible for a document forwards the draft document to API associate for editorial evaluation.
- API associate determines the extent of editing required, including if any part needs to be outsourced, and informs the API committee member of the work entailed in order to bring the document into compliance with the ISO Directives Part 2.
- Once work is completed, the API associate sends the completed draft document back to API committee member for review prior to submission for the next ballot stage.

References

- *ITSIG specification for the preparation and exchange of graphics*
- *ISO/IEC Directives, Part 2, Rules for the structure and drafting of international standards*
- *ISO/TC 67 Drafting and editing protocols*
- *ISO/TC 67 Policies and procedures guide (ISO/TC67 N 435)*

8. Special requirements associated with the management of joint working groups (JWGs)

Discussion

The ISO Directives, Part 1, clause 1.11.4 states:

> *In special cases a joint working group (JWG) may be established to undertake a specific task in which more than one ISO and/or IEC technical committee or sub-committee is interested. For administrative purposes the joint working group shall be placed under one of the parent committees, nominated by mutual agreement. A proposal to establish a joint ISO/IEC working group, including clear recommendations on which organization is responsible for final publication and subsequent maintenance of the publication, shall be submitted for approval to the technical management boards.*

However, there are challenges associated with these, such as:

1. Determining which TC has primary responsibility/which TC will lead the project(s) (the ISO Central Secretariat database can only list one TC or SC as responsible for a particular standard).
2. Determining which TC will nominate and appoint the JWG Convenor. The convenor should act in a purely international capacity, divesting themselves of a national point of view. However, the Convenor still has the ability to guide the work in a specific direction, and therefore, appointing a JWG Convenor through mutual agreement of the TCs involved could prove difficult.
3. The possibility of different organizations (on behalf of ANSI) administering the U.S. TAGs that mirror each ISO TC/SC, leading to:
    a. potential problems in obtaining consensus between the two TAGs when determining the U.S. position on any ISO ballots;
    b. potential issues over which organization adopts any resulting ISO standards as American National Standards.

References

- *ISO/IEC Directives , Part 1, Procedures for the technical work*

9. ANSI and API national adoptions procedures and options

Discussion

The API Guide for Adoption of ISO Standards as U.S. National Standards *(*Guide*)* should be used by API staff and committees as guidance when preparing to adopt back an ISO standard as an API/ANSI Standard. While the Guide describes the steps for a typical adopt back of an ISO standard, special situations might arise that may result in deviations from these guidelines. The following definitions apply:

- Amendment (to an ISO Standard) – equivalent to an API Addendum/Supplement
- Identical Adoption – Adopt the ISO standard as is
- Modified Adoption – Adopt the ISO standard with technical changes (must include identification and explanation of the changes)
- Technical Corrigenda – equivalent to an API Errata

All API national adoptions of ISO standards must be processed through the American National Standards Institute and will required ANSI submittals for acceptance as American National Standard. Therefore, all standards must be represented and designated in accordance with ANSI procedures. The ANSI logo or the words "an American National Standard" must appear on the cover of all standards. The date of the ANSI approval is not required on the front cover. API must publish the nationally adopted standard within six months of ANSI approval.

Specific information on covers and notation can be found in the Guide.

The production process flowchart in Section 10 shows that:

1. The ISO DIS ballot and the API approval ballot shall be one and the same ballot. The ballot shall state that approval of the document constitutes (1) approval of the document as an API standard and (2) approval of the document as an ISO DIS.
2. For an identical adoption, the ISO FDIS ballot and the API national adoption ballot shall be one and the same based on an API committee decision to conduct a concurrent ballot. The API ballot shall state that approval of the document constitutes (1) approval of the document as an ISO standard and (2) approval of the document as an API/ANSI standard.

References

- ISO Guide 21 – *Adoption of International Standards as regional or national standards*
- *ANSI Procedures for the National Adoption of ISO and IEC Standards as American National Standards*
- *API Guide for Adoption of ISO Standards as U.S. National Standards*

10. Work Process Flowcharts

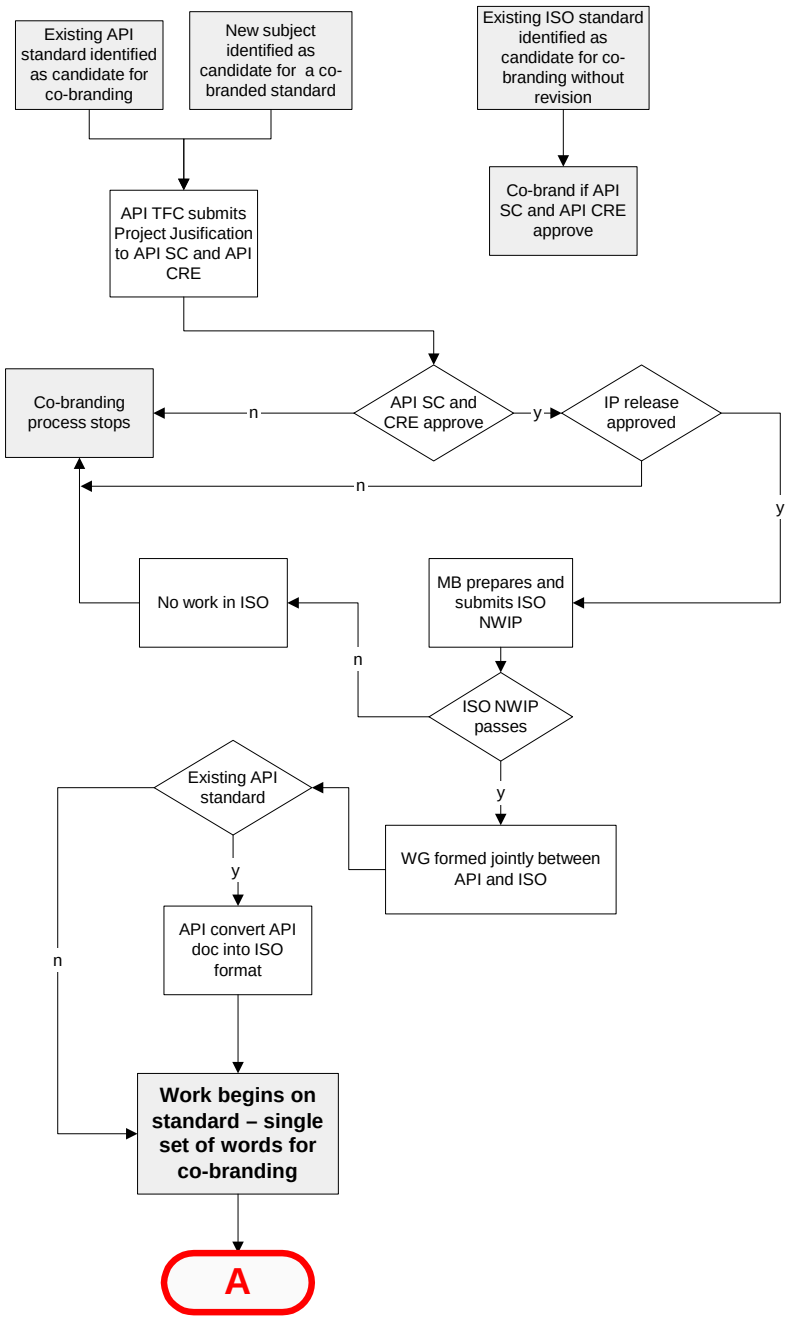
The following flowcharts are provided for work process guidance:

1. **Project Initiation**—New standard to be co-branded

2. **Project Initiation**—Revision of co-branded standard

3. **Production Process** for a co-branded API/ISO standard

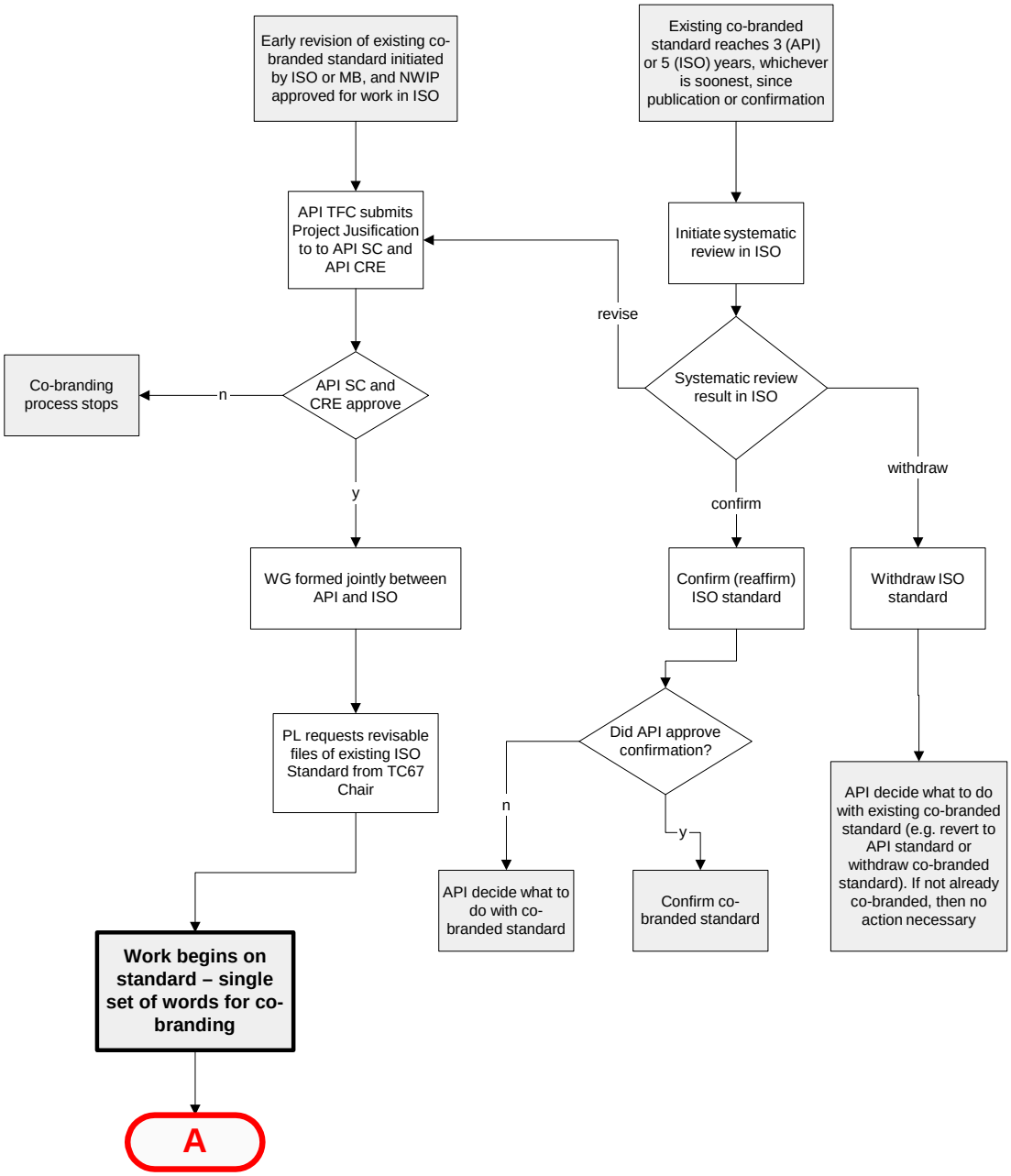
Project Initiation - New standard to be co-branded



API SC	=	API subcommittee
CRE	=	API Committee on Refinery Equipment
IP	=	Intellectual Property
ISO/CS	=	ISO Central Secretariat
ISO SC	=	ISO subcommittee (e.g. ISO/TC 67/SC 6)
MB	=	ISO Member Body (U.S MB is API via ANSI)
NWIP	=	New Work Item Proposal
OM	=	Observer Member

PL	=	Project Leader
PM	=	Participating Member
TF	=	API Task Force
TFC	=	API Task Force Chair
TS	=	Technical Specification
US TAG	=	U.S. Technical Advisory Group
WG	=	Working Group

Project Initiation - Revision of co-branded standard



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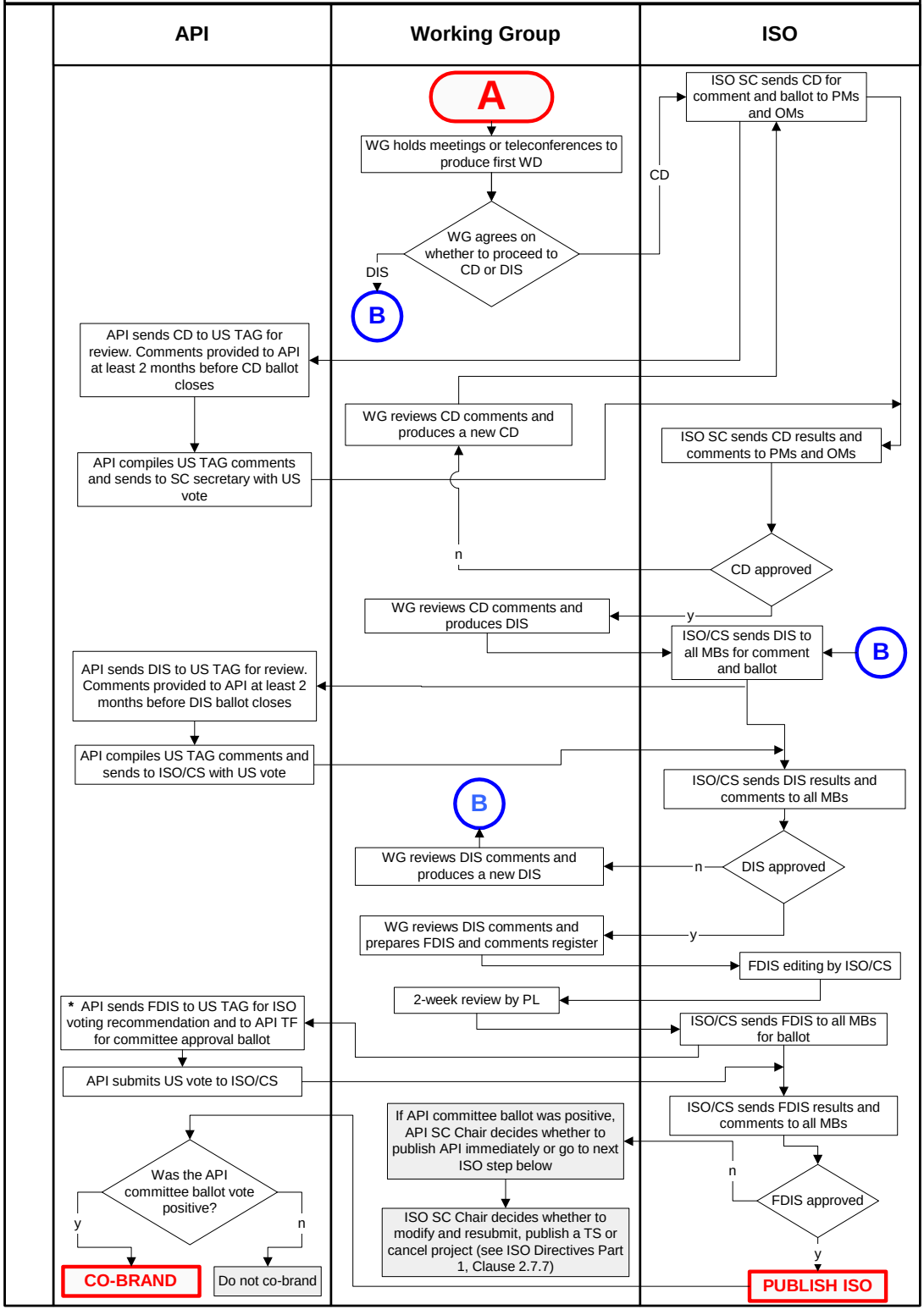
US TAG	=	U.S. Technical Advisory Group
WG	=	Working Group

Production process for a co-branded API/ISO standard



* Joint balloting based on API committee decision to conduct concurrent FDIS and US national adoption ballot