

Chapter 5 – Technical Documents

5.2 PROJECT MANUAL

5.2.1 SPECIFICATIONS LANGUAGE

A. INTRODUCTION

1. Specifications are printed documents that establish procedures and requirements for a particular project. Specifications are legally enforceable as contract documents and must be prepared with concern and respect of their legal status. Specifications should include the correct use of words and grammar with properly constructed sentences and paragraphs. Specifications must be clear, correct, complete, and concise using these guidelines:
 - a. Clear: Use correct grammar and simple sentences to avoid ambiguity. Carefully selected words to convey exact meanings.
 - b. Correct: Present information accurately and precisely.
 - c. Complete: Do not leave out important information.
 - d. Concise: Eliminate unnecessary words, but not at the expense of clarity, correctness, or completeness.
2. D&C policy is that specifications are written descriptions that, together with the drawings form complete statements. These statements are intended to communicate the requirements of the project to a wide variety of people in the clearest way possible. The intent of this subchapter is to help achieve that goal.

B. LANGUAGE STYLES

1. There are three basic language styles that can be used to convey specification requirements clearly and concisely, indicative style, imperative style, and streamlining style. Each style has applications to which it is particularly suited. Imperative and streamlining are the preferred styles.
2. Indicative Style: The indicative style, or passive voice style, was the traditional language of specification sentences before the Construction Specifications Institute (CSI) was established. The indicative style requires the use of “shall” in nearly every statement and, therefore, causes unnecessary wordiness and monotony. Examples:
 - a. Doors shall be fabricated with integral weatherstripping.
 - b. Metal components shall be shop primed prior to fabrication.
 - c. Air-entraining agent shall be More-Air Brand by X Manufacturing Company.
 - d. Adhesive shall be Type I, waterproof.
 - e. Portland cement shall meet the requirements of ASTM C 150, Type 1 Portland cement.
3. Imperative Style: The imperative style is simple and effective in terms of clarity and conciseness. Words such as “The Contractor shall” are eliminated from the text.

Instead, the verb is the first word of the sentence and it clearly defines the action to be performed. This style is concise and readily understandable. Examples:

- a. Fabricate doors with integral weatherstripping.
- b. Shop prime metal components prior to fabrication.

4. **Streamlining Style:** Every attempt to reduce words in a sentence is commendable if the meaning can be clearly conveyed without loss of force or content. The streamlining style is used to list products, materials, reference standards, and other itemized specifications. Examples:
 - a. Air-entraining Agent: More-Air Brand, X Manufacturing Company.
 - b. Adhesive: Type 1, waterproof.
 - c. Portland Cement: ASTM C 150, Type 1.
5. Some of the best examples of clear and concise writing style can be found in the average cookbook. Sentences are short and are written in the imperative style. Compound sentences are rarely used. The detailed list of ingredients is usually followed by simple, but complete directions. Below are the directions from a recipe for date and nut bread:

Mix walnuts, dates, soda, and salt with a fork. Add shortening, water; let stand 20 minutes. Pre-heat oven to 350 degrees F. Grease 9 by 5 by 3 inch loaf pan. Beat eggs with fork; beat in vanilla, sugar, flour. Mix in date mixture until blended; turn into pan. Bake 65 minutes or until done. Cool in pan 10 minutes; remove. Cool overnight before slicing.

- a. The above recipe (imperative style) contains 65 words.
- b. Below are the directions using the indicative style. This version uses 206 words:

The Contractor shall mix walnuts, dates, soda, and salt of the respective types and quantities specified hereinbefore in a suitable vessel. Approved shortening and potable water shall then be added. Mixing shall be done with a fork of suitable design and weight. After mixing has been completed, the Contractor shall allow the combined ingredients to stand undisturbed for a period of 20 minutes. An oven of suitable design and capacity shall be used for heating. It shall be ignited and set at a temperature of 350 degrees F. While oven is heating, a 9 inch by 5 inch by 3 inch loaf pan of suitable and approved type shall be greased with approved type grease. Eggs specified hereinbefore shall be beaten with the specified fork. Vanilla, sugar, and flour shall then be thoroughly beaten into the eggs in a proper manner. The specified mixture of walnuts, dates, soda, and salt shall then be placed in the loaf pan and baked. Baking shall continue at least 1 hour and 5 minutes or until mixture is completely baked. The baked mixture shall be allowed to cool in the pan for 10 minutes and then removed. It shall be allowed to cool overnight before slicing is permitted.

6. Language style should not be confused with specified detail. The specified detail should correspond with the complexity and required quality of the project. The specifications for a large correctional project will be more complex than those for a

small vacation cottage, but the same general rules for clarity and conciseness apply to both specifications.

7. The degree of specified detail is a matter of judgment and often guided by economic consideration. A truly concise specification is complete if it covers all important aspects without elaborating on unnecessary detail.
8. Rules For Good Language Style:
 - a. Use short sentences.
 - b. Maintain the sentence structure in simple declarative statements (imperative style or streamlining style).
 - c. Avoid complicated sentences in which the meanings are so dependent on punctuation that inadvertent omission or insertion of punctuation changes the meaning or creates ambiguity.
 - d. Choose words and terms that are plain and well understood to convey the information. Avoid pompous or highly embellished language.
 - e. Do not repeat information shown or scheduled on the drawings.
 - f. Do not duplicate information within different parts of the specifications.
 - g. Avoiding repetition or duplication helps eliminate unnecessary words and the possibility of contradiction.
 - h. Use consistent terminology and spelling throughout the contract documents. Generic terms for most products are established in the master specifications. The same generic terms must be used on the drawings to avoid misunderstanding.
 - 1) Similarly, if an item shown on the drawing is not covered by the master specifications, it must be identified in the specifications with the same generic term used on the drawings.
 - i. Identify items on the drawings by generic terms and never by brand names.
 - j. Do not write specifications that repeat or modify the General Conditions.
 - k. Do not direct the language of the specifications towards specific trades, Example:

INCORRECT: 'The rigger shall provide for the hoisting of the vacuum pump'.
CORRECT: 'Hoist the vacuum pump'.

- l. Do not use adverbs such as herein, hereinbefore, hereinafter and wherein.
- m. Avoid using the expression in a workmanlike manner.
- n. Specify tolerances or other measurable standards of workmanship.
- o. Avoid such terms as "to the satisfaction of the Director" and "acceptable to the Director's Representative" and "as directed".
- p. Specify exactly what is required. Do not make the Contractor guess at what will be required or be put at the mercy of someone's future decisions.
- q. Do not use "Description", "Section Includes", "Work Included", "Summary", "Scope of Work" or similar articles in the Division 02 through 48 specifications. Limit the use of these articles in Division 01 specifications. These articles, generally, are redundant, dangerous, time consuming, and generally serve no purpose other than to add to the specifications. The scope of the work should be shown on the drawings. If there are no drawings, describe the scope of the work at the beginning of Section 011000 – Summary of the Work.

- 1) A “Description”, “Section Includes”, or “Summary” article may be used in Division 01 specifications which contain work which is not shown on the drawings such as the construction facilities & temporary controls, asbestos protective equipment, or state field office.

- r. The word “all” is frequently unnecessary and if it is not used consistently, the Contractor has an argument that some other directive did not specify “all”.
Example:

Install piping parallel to or perpendicular to exterior building wall. Install all chilled-water piping with insulation.

1) The Contractor has a reasonable argument that all chilled-water piping is to be insulated, but not all piping must be installed parallel or perpendicular to building construction.

- s. The use of the word “new” is usually unnecessary and risky for the same reason given in the previous example and because of the following paragraph in the General Conditions.

5.1 All materials, equipment and articles used permanently in the Work which become the property of the State shall be new unless specifically stated otherwise.

1) There are exceptions to this rule, such as when the work entails both the reuse of existing items and the installation of similar new items. The word “new” is often necessary to distinguish between the two.

- t. Do not make the Director’s Representative responsible for designing the job.
Example:

Exhaust fans of proper size and capacity must be installed in roof access doors and window areas, as directed and approved by the Director’s Representative.

1) The above paragraph was copied from the specifications for a project which included the painting of tanks within an existing building. The specified paint contained volatile solvents which, for safety reasons required a great deal of ventilation. Apparently, the specifications writer did not know how much ventilation was required so passed the responsibility to the Contractor and the Director’s Representative. This is poor practice for several reasons.

- u. Vague requirements are difficult to bid on. Bidders have no way of knowing the extent of the work that they are going to be directed to do, therefore, bidders have to guess at the price.

- v. It forces the Director’s Representative to make decisions that should be made by the designer or specifications writer.

- w.** If an explosion occurred as a result of inadequate ventilation, the Director's Representative might be considered partially responsible because the extent of the ventilation required had been "directed and approved".
- x.** Do not use the term "or equal" for products specified by brand name. This is covered by the General Conditions.
- y.** Do not use "either" when a choice is not intended. Examples:
POOR: Glass panels shall be provided on either side of main entrance.
GOOD: Provide glass panels on both sides of main entrance.
BETTER: Provide glass panels on each side of main entrance.
- z.** Do not use "same" as pronoun. Examples:
POOR: If materials are rejected, replace same.
BETTER: Replace rejected materials.
- aa.** Do not make the Contractor the subject of the sentence. Instead make the material, or (preferably) the action, the subject. Examples:
POOR: Contractor shall lay brick in common bond.
BETTER: Lay brick in common bond.
- bb.** Definite article "the" and indefinite articles "a" and "an" do not need to be used in many instances. Examples:
POOR: Apply an oil paint with a brush to the walls.
BETTER: Apply oil paint with brush to walls.
- cc.** When "that" is used as a pronoun or conjunction, it is frequently unnecessary. Examples:
POOR: Cut sheathing so that end joints occur at supports.
BETTER: Cut sheathing so end joints occur at supports.
- dd.** Do not use the term "this Contract". Examples:
POOR: Excavation for the tank shall be included in this Contract.
BETTER: Excavate for the tank.
- ee.** Avoid unnecessary terms such as "as specified", "etc.", "and/or", "as per", "at no additional cost to the State".
- ff.** Do not use vague terms such as "true", "level", "perfect", "smooth", or "heavy". Instead, specify measurable tolerances and make sure the tolerances are reasonable.

C. VOCABULARY AND TERMINOLOGY

- 1.** The use of words in specifications is critical. Some words which appear to have the same meaning have exact definitions which could produce results altogether different from the intent. A specifications writer should carefully select and use each word in its precise meaning. Within a specification a word should be used for only one meaning and the same word should be used whenever that particular meaning is intended. Some common vocabulary and terminology issues are:
 - a.** Provide - Furnish: "Provide" is defined in the General Conditions to mean "furnish and install complete, in place and ready for operation and use". "Furnish" should be used only when installation is not required or is to be done by others.
 - b.** Any - All: "Any" is a limited number selected at the discretion of the reader while "all" is the entire extent. "Repair any cracks" could mean the cracks as designated by the Contractor while "Repair all cracks" definitely means every crack.

- 1) The preferred specifications language would be: “Repair cracks”.
 - 2) Avoid the use of any and all.
 - c. Flammable - Inflammable: These words have exactly the same meaning, even though they sound opposite, “flammable” is preferred.
 - d. Amount - Quantity: “Amount” should be used when writing about money. “Quantity” should be used when writing about volume, yardage, and gallonage.
 - e. Balance - Remainder: “Balance” should be used when writing about money. “Remainder” is preferred for “that which is left”.
 - f. Shall - Will: “Shall” is used with reference to the work of the Contractor. “Will” is used in connection with acts of the Director, or Director’s Representative.
 - 1) Note: D&C’s General Conditions stray from this principal.
 - 2) The words “must” and “is to” should be avoided.
 - g. Linear - Lineal: “Linear” is the correct term to use in reference to linear measurement.
 - h. Director’s Representative - E.I.C. - State’s Representative: Use “Director’s Representative” exclusively. It is the only term that is defined in the General Conditions.
 - i. Facility - Institution: Use “Facility” exclusively. Most of the D&C clients do not like the term “Institution”.
 - j. Concrete Masonry Unit - Concrete Block: Use “concrete masonry unit” or the abbreviation “CMU” exclusively. Do not use “concrete block”.
2. The terms defined in Article 2 of the General Conditions, Sections 014100 and 014217, and under the Definitions Article in some master sections should be used only as defined.

D. SPELLING

1. The spelling used in specifications should be consistent. Some common spelling inconsistencies are:
 - a. Gage - Gauge: “gage” is the preferred spelling.
 - b. Molding - Moulding: “molding” is the preferred spelling.
 - c. Catalog - Catalogue: “catalog” is the preferred spelling.
 - d. Thru - Through: “thru” is the preferred spelling.
 - e. Facia - Fascia: “facia” is the preferred spelling.

E. ABBREVIATIONS

1. Since the primary objective of specifications is to communicate, any step which increases understanding and speeds comprehension should be adopted. Well-known and industry-accepted abbreviations are a shorthand method which helps the communication process. All users of the specifications must understand the meaning of an abbreviation before the abbreviation can contribute to better communications.
 - a. Use abbreviations only when necessary to save time and space and only when their meaning is unquestionably clear to the intended reader, e.g., ASTM, ANSI, ASME, etc.

- b. An abbreviation which requires definition should ordinarily be avoided. An exception to this rule can be found in a term which will be used repeatedly in the same specification section. For such a term, a definition may be appropriate.
- c. Periods are generally not used with abbreviations. The exception is when, in its context, it does not obviously represent an abbreviation.
- d. When in doubt spell it out.
- e. Abbreviations for use in the specification are usually lower case letters even though the drawings may use upper case letters.
- f. In general, acceptable abbreviations are those used throughout the industry. ANSI/ASME Y14.38 Abbreviations and Acronyms is one in industry standard. Some abbreviations which are used in D&C specifications follow, however, keep a. above in mind.

F. SYMBOLS

- 1. The objections and precautions for abbreviations also apply to symbols for words or terms. Small symbols may also “bleed” together and become unreadable in a poorly printed text. Following are some of the symbols which should not be used in specifications:

#	for pound or number	+	for plus
%	for percent	-	for minus
/	for per or either/or	X	for by (as in 2 x 4)
°	for degree		

- 2. If symbols are used these rules must be followed:
 - a. Use symbols only when necessary to save time and space. Since symbols may have to be interpreted by people of varying backgrounds, symbols should only be used when their meaning is clear to the intended reader.
 - b. A symbol which requires definition should ordinarily be avoided. An exception to this rule can be found in a symbol which will be used repeatedly in the same specification section. For such a symbol, a definition may be appropriate.
 - c. When in doubt, do not use a symbol. Spell it out.
 - d. Parentheses () and quotation marks “ ” should be avoided or kept to a minimum.
 - e. Underlines should be avoided or kept to a minimum.

G. NUMERALS

- 1. Rules which should be observed when using numerals (figures):

RULE	EXAMPLE
Use numerals for dimensions.	1-1/2 by 4 inches
Use numerals for degrees of temperature.	50 degrees F
Use numerals for percent.	20 percent
Use numerals for dollars and cents.	\$5.75

RULE	EXAMPLE
Use numerals for quantities except for one unit.	6 inches one pound
Spell out figures at the beginning of a sentence.	Five years ago...
Spell out first numeral when two numerals are involved.	four 2 hour sessions
Use numerals for clock time.	2:15 pm
Express dates in numerals. (Except the month.)	September 25, 2009
Express decimals in numerals.	9.25
Express decimal only to the degree of accuracy to which measurements are made.	29 inches, not 29.00 inches unless measurements were made to an accuracy of 0.01 inch.
For quantities less than one, use a zero before the decimal point.	0.925
Use commas in numbers having 4 or more digits, except in metric system	2,009 2,592,009
Express street numbers in digits with no commas	32792 Spring Valley Lane
For noun or adjective usage, omit commas in four digit numbers.	2009 (year) 4160 volts
Omit "Number" or "No." when referring to catalog and figure numbers.	Style 4140 (not Style No. 4140) Fig 3 (not Fig. No. 3)
Avoid use of "Cat. No." or "Catalog No."	Model 64 (not Cat. No. 64 or Catalog No. 64)
Use numerals for sums of money. Do not duplicate the amount in writing. Omit unneeded zeroes.	50 cents, \$200 (not \$200.00)
In fractions use a hyphen between whole number and numerator of the fraction.	10-3/4 2-1/2
Spell out feet when no inches are used and accuracy is not important, such as the dimension of a post.	8 feet
Use feet and inches when accuracy is intended.	8'-0"
Spell out inches when only inches are used. When feet and inches are both used, use symbols.	8 inches 9 by 5 by 3 inches

H. CAPITALIZATION

- Capitalization should be consistent within specifications. Capitals are used to refer to specific nouns, proper names and certain defined terms. Examples of words that should be capitalized:

- Addenda, Addendum
- Agency
- Agreement
- Article (specific – in the specifications – when used with article number)
- Change Order
- Contract
- Contract Documents
- Contractor (the party to the Agreement)

- Director
 - Director's Representative
 - Drawings
 - General Conditions
 - Order on Contract (same as Change Order)
 - Paragraph (specific in the specifications when used with paragraph letter)
 - Part (in a Section)
 - Project
 - Section (of the specifications – when used with section number)
 - Site
 - Specifications
 - State
 - Subparagraph (specific – in the specifications – when used with subparagraph number)
 - Work (of the contract – all or part)
2. Rules which should be observed for capitalization:
- a. No capitalization is required when the above examples are used in the general sense. For example, the word “Work” is capitalized only when it means the Work of the Contract as defined in the General Conditions; not when used in this manner: “Adjust hardware to work smoothly.”
 - b. Directions such as “east” or “northwest” are not capitalized unless they form part of a proper noun.
 - c. The words “subcontract” and subcontractor” are not capitalized because the words do not apply to a specific party defined in the General Conditions.
 - d. Terms relating to components of the contract when used in a general sense within the text should not be capitalized. These include shop drawings, product data, mockups, samples, etc.
 - e. Capitalize the first letter of words in a definitive phrase preceding a colon, and capitalize the word following the colon. Example: “Face Brick: Solid units of....”
 - f. Capitalize every word except conjunctions, articles, and short prepositions in names of standards, organizations, agencies, businesses, etc. Example: American Society for Testing and Materials.
 - g. Use capitals sparingly and for specific reasons in order to avoid confusion. Using capitals unnecessarily can detract from clear communication.
 - h. Capitalized words should mean something, impart extra importance, and attract special attention when used.

I. PUNCTUATION

1. Specifications are legal documents and should be punctuated rather formally. All sentences and clauses should be constructed so that misplaced or eliminated punctuation does not change the intended meaning.
 - a. Quotation marks are not required when quoting a title. Example: ASTM A 2 - Standard Specification for Steel Girder Rails of Plain, Grooved, and Guard Types.
 - b. Use commas after each item in a series, including the item preceding a conjunction, and in other locations where the clarity of the statement is improved.
 - c. Use commas before the “and” between the last two items in a series so that the last two items may be considered separately, not in combination. Examples:
 - 1) Explosives, powder actuated tools, and tungsten carbide hacksaws are prohibited.

- 2) Piping: This term includes pipe, tubes, flanges, hangers, and supports.
- d. Wherever a colon (:) is used, capitalize the word following the colon. Example:
A. Gaskets: High temperature mineral fiber.
- e. Where the colon (:) is used, followed by a material, followed by an ASTM designation or other standard, use a semi-colon (;) following the material. Example:
A. Top: Stainless steel; ASTM A 264.

J. GRAMMAR

1. Agreement: The subject and verb must always agree in number. Use singular verbs with singular subjects and plural verbs with plural subjects. An error in number is easy to make when a sentence is long and complicated. The singular subject of a sentence can be confused with a modifier that is plural. The subject of a sentence cannot be contained in a prepositional phrase, yet the wording of many sentences is such that the object of a preposition may be mistaken for the subject of the sentence. Examples:

INCORRECT: One of the elongated central fasteners are to be placed around the eye of the panel and bolted.

PREFERRED: Bolt one elongated central fastener to panel eye.

2. The incorrect example uses a singular subject one with a plural verb are. The preferred example is written in the imperative mood. It indicates number agreement and is a simple, direct statement of instruction.
3. Parallel Construction: Good grammar requires the use of identical style in both parts of a compound subject or predicate. The use of identical style in a series of nouns, adverbs, or prepositional phrases is also recommended. Example:

INCORRECT: Tests shall be performed to determine strength and establishing quality.

PREFERRED: Perform tests to determine strength and to establish quality.

INCORRECT: Heating, Ventilation and Air Conditioning.

PREFERRED: Heating, Ventilating, and Air Conditioning.

4. Pronoun Reference: The use of pronouns should be avoided or minimized. It is better to repeat the noun than risk possible misunderstanding. Example:

INCORRECT: Apply coating with pneumatic equipment when it is above 40 degrees F.

PREFERRED: Apply coating only when ambient temperature is above 40 degrees F. Maintain pneumatic equipment above 40 degrees F.

5. Prepositional Phrases: Sentences may be shortened in specification language by using modifiers in place of prepositional phrases. Example:

CORRECT: Top of platform.

PREFERRED: Platform top.

CORRECT: Within the time limit recommended by the manufacturer.

PREFERRED: Within manufacturer's recommended time limit.

K. CASE STUDY

1. How Not to Write: Paragraphs A. & B. below were copied from an addendum to a Heating Contract issued by this office. These paragraphs are a case study in how not to write specifications because they contain an unusually large number of language errors and because one of those errors resulted in a change order that cost the State money.
 - "A. All rigging required by the Work of this Contract shall be performed by skilled riggers regularly engaged in rigging work. Provide all required rigging, protective planking, openings and support items as may be required for the removal by hoisting of existing vacuum pump from its present location in ash silo area of the heating plant, to First floor level, and final removal from building. Heating contractor shall, prior to start of rigging operations disconnect existing piping, water connections and drive coupling of existing vacuum pump. Once existing vacuum pump has been removed from the work area, the institution representative shall turn over to the riggers, one new vacuum pump. The riggers shall provide for the hoisting of new vacuum pump from First Floor level up to the ash silo level, including the placing of new vacuum pump on its base. Once new vacuum pump is located in its permanent position, the heating contractor shall make all final piping connections, water connections and drive coupling connections as well as all final adjustments.
 - B. Riggers shall be responsible for any and all damages to existing building and equipment causes by rigging and hoisting operations. Repair or replace any and all damaged items caused by rigging work 35 in an approved manner, to the complete satisfaction of the State. Rigging and hoisting apparatus shall be located at entrance area of building adjacent to Elevator No. 1 Lobby and Stairway H-3 serving First Floor, Second Floor and ash silo area. Disconnect and remove existing building items as required by rigging work and as directed by the State's Representative. Upon completion of rigging and hoisting operations, remove from the site all rigging and hoisting equipment and leave the work area in complete repair. Replace building items, removed during the rigging operations and reconnect same to complete satisfaction of the State Representative."
2. There are many things wrong with the language of the above paragraphs. Let's look at the most important one first; the one that cost the State money. Notice that much of the language of the two paragraphs is directed at the "rigger". The specifications writer intended all of the work to be included in the HVAC Work Contract, but wanted to make sure that the heating contractor employed skilled riggers to handle the hoisting and moving of the vacuum pumps. Unfortunately, the specifications writer did not make his intent very clear. The HVAC Work Contractor interpreted the above paragraphs to mean there was a separate rigging contractor retained by the State to handle the State-owned vacuum pump, and was successful in a claim for additional compensation.

3. There are, of course, many other things wrong with the language of the example paragraphs. The language contradicts many of the principles discussed in this Subchapter. Some of the errors are:
 - a. The term “vacuum pump” used in the specifications is inconsistent with the term “vacuum producer” used on the drawings.
 - b. The imperative mood is used in some sentences, but not in others.
 - c. The term “institution” is used instead of “Facility”.
 - d. The term “State’s Representative” is used instead of “Director’s Representative”.
 - e. The first sentence of Paragraph B. assigns responsibility for damage. This is covered in the General Conditions and should never be mentioned in the specifications.
 - f. Terms like “to the complete satisfaction of the State’s Representative” should never be used in the Contract Documents. Such terms are not biddable and not enforceable because bidders have no way of knowing what it would take to satisfy the State’s Representative.

L. SUMMARY

1. There are 4 important C’s for specification writing. The wording of specifications should be clear, correct, complete, and concise:
 - a. Clear so there are no ambiguities.
 - b. Technically correct.
 - c. Complete with all important information.
 - d. Concise so there is no excessive wording.
2. A good specification is one containing the fewest words that can be used to complete the description and make sense.
3. Each statement in a specification carries a dollar sign along side it whether it is concerned with specifying materials, instructing the Contractor on installation procedures, or describing workmanship. The Contractor expects to be paid for each item and direction given in the specifications, and the bid reflects every statement in the specifications.
4. Using vague, ambiguous language indicates that the specifications writer may want something but is unsure about demanding it. The Contractor can not be expected to guess at what will be required or be put at the mercy of someone’s future decisions.
5. Specification language should be precise, not vague.
 - a. The precise specification can be enforced.
 - b. The vague specification is difficult to enforce.

End of Technical Documents – Specifications Language