

Engineering Standard

SAES-T-621

31 March, 2004

Communications Pole Lines

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Saudi Aramco DeskTop Standards

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I General

- A. Saudi Aramco adopts General Telephone & Electronics (GT&E) Practice Series 621, POLE LINES, as that engineering criteria to be applied to Saudi Aramco Communications System installations with exceptions applicable to individual sections as listed in section two.
- B. In general, this series deals with the construction of communications pole lines in non-hazardous areas. The information contained within this standard should be supplemented by the appropriate sections of the NFPA 70, National Electrical Code (NEC) and/or the ANSI C2, National Electrical Safety Code (NESC) when dealing with facilities within an area classified as hazardous per [SAES-B-068](#) and the NEC.
- C. Reference in this standard to any particular manufacturer by name in connection with any product is only intended for the purpose of example or description (i.e., type, specification, and quality of that product). Items actually purchased may be of any manufacture that meets technical requirements.
- D. The adopted GT&E Practice is reproduced verbatim, (with minor editing in connection with the exceptions listed in section two), consequently English (US) units of measurement are utilized with no metrication attempted.

II Conflicts and Deviations

Any deviations, providing less than the mandatory requirements of this standard require written waiver approval as per Saudi Aramco Engineering Procedure [SAEP-302](#). ||

III References

The selection of material and equipment, and the design, construction, maintenance, and repair of equipment and facilities covered by this standard shall comply with the latest edition of the references listed below, unless otherwise noted.

A. Saudi Aramco References

Saudi Aramco Engineering Procedure

[SAEP-302](#)

*Instructions for Obtaining a Waiver of a
Mandatory Saudi Aramco Engineering
Requirement*

Saudi Aramco Engineering Standard

[SAES-B-068](#)

Electrical Area Classification

[SAES-P-107](#)

Overhead Distribution Systems

General Instruction

GI-1021.000 *Street and Road Closure: Excavation,
Reinstatement and Traffic Control*

B. Industry Codes and Standards

American National Standards Institute

ANSI/NFPA 70 *National Electrical Code (NEC)*

ANSI C2 *National Electrical Safety Code (NESC)*

General Telephone and Electronics

GTE 621 *Pole Lines*

IV Modification to GTE 621

The following paragraph numbers refer to GTE 621 "Pole Lines", which is part of this standard. The text in each paragraph below is an addition, exception, modification, or deletion to GTE 621 as noted. Paragraph numbers not appearing in GTE 621 are new paragraphs to be inserted in numerical order.

GTE 621-100-201: Installation - Hole Digging; Issue 2/February, 1968

Exceptions:

- *General; GI-1021.000 (Street and Road Closure: Excavation, Reinstatement and Traffic Control) should be reviewed before any excavation is started.*
- *Paragraph 2, Tables 1 & 2 refer to [SAES-P-107](#) (Table 02-40 for pole setting depths).*
- *Paragraph 2.10; delete reference, in first sentence, to "General Plant Director", insert in its place reference to The Loss Prevention Department and in last sentence; delete reference to "General Telephone Company", in its place insert Unauthorized; change word "dynamite" to read "explosives":*
- *Paragraph 2.14; delete words "General System".*

GTE 621-100-202: Installation - Setting Poles; Issue 1/December, 1964

Exception:

- *delete term "Jenny" from paragraph 2.07(3); change term "dinkey" to "pole carl" in 2.07(4).*

GTE 621-100-204: Installation - Pole Rake; Issue 1/October, 1964

Exception: None

GTE 621-100-205: Installation - Pole Framing; Issue 1/October, 1964

Exception: None.

GTE 621-100-206: Installation - Pole Braces And Footings; Issue 1/May, 1965

Exceptions: None.

GTE 621-100-208: Safeguards Against Shock Hazards Placing, Moving And Removing Poles; (Addendum)

Exceptions:

- *paragraph 1.01; delete words "General System Practices" and "GSP":*
- *paragraph 2.01; delete, in the last sentence, the phrase "shown in the system standard tool catalog".*

GTE 621-100-208: Safeguards Against Shock Hazards Placing, Moving And Removing Poles; Issue 1/June, 1966

Exeptions:

- *paragraph 2.02,(a); delete abbreviation "GSP".*
- *paragraph 5.08; change reference to "GSP 075-190-100" to reference SAES-T-621, Appendix A:*

GTE 621-101-200: Installation - Pole Steps; Issue 2/June, 1968

Exception: None.

GTE 621-300-300: Pole Lines - Resetting Poles And Removing Butts; Issue 1/May, 1963

Exception: None.

GTE 621-400-200: Removal - Pole; Issue 1/November, 1964

Exception: None.

GTE 621-500-202: Installation - Cable Extension Arms; Issue 1/October, 1964

Exception: None.

GTE 621-605-205: Installation - Guys - Strand Wrap Method; Issue 1/December, 1964

Exception: None.

GTE 621-605-206: Guys - Use Of Strandvise; (Addendum)

Exception:

- *paragraph 2.01; correct to read as follows; "Table 1 has been revised to reflect changes in material items new standard".*

GTE 621-605-206: Guys - Use Of Strandvise; Issue 1/November, 1962

Exception: None.

GTE 621-610-100: Anchors And Rods - Description And Installation; Issue 5/September, 1977

Exceptions:

- *paragraphs 1.01 & 2.02; delete words, "of GTE Practices":*
- *Table 2, Screw Anchors - Power Installed; anchors available in SAMS Class 14 are eyeless;*

GTE 621-610-201: Attaching Guys - Poles And Rods; Issue 2/January, 1968

Exceptions:

- *paragraphs 3.01 & 4.01; delete words "of General System Practices";*
- *Table 1; change first guy-hook bolt hole diameter from 5/8" to 11/16 to correspond with guy-hook available from SAMS; delete remaining guy-hook sizes from table:*

GTE 621-610-203: Installation - Guys, Cable Lines; Issue 1/November, 1964

Exceptions:

- *paragraph 2.01; the guy rule referred to in the text is available from Automatic Electric, part number 577532 or from Sillcocks - Miller:*
- *paragraph 7.02; delete reference to "GSP"*
- *paragraph 9; this is included for informational purposes only:*

GTE 621-610-204: Anchors, Rock - Description And Installation; Issue 1/December, 1963

Exception:

- *paragraph 2.01; delete reference to 30 inch rod length, anchor available from SAMS is 53 inches in length.*

GTE 621-610-205: Installation - Sidewalk Guys; Issue 1/November, 1964

Exceptions:

- *paragraph 2.03; change word "size" to length, insert reference to 2-inch pipe (only) to conform with SAMS available materials:*
- *Table 2; delete all references to 2-½ inch pipe size:*
- *paragraph 3.01, (2); change reference to 4-½" lag screws to 5", to conform with SAMS available materials:*
- *Figure 2; delete reference to 2-½" pipe, change 4-½" lag screws to 5":*
- *Figure 3; delete the portion which deals with 2-½ inch pipe:*

GTE 621-610-208: Guy Guards - Installation; Issue 3/January, 1976

Exceptions:

- *paragraph 1.01; change reference to "8 ft." guy guards to read 7 & 8 ft., to conform with available SAMS material:*
- *paragraph 1.02; add statement at the end, "excepting sidewalk guys":*
- *paragraph 1.03; delete this paragraph in its entirety:*
- *paragraph 4.02; delete words "Current Manufacture" from heading.*
- *paragraph 4.04; included for informational purposes only.*
- *Figure 2; delete word "Manufacture" from heading.*
- *Figures 4 & 5; for informational purposes only.*

SAES-T-621 - Appendix A: Linemen's Rubber Gloves And Rubber Blankets - Description, Use, And Care

Exceptions:

- *This entire section, included as appendix A, is a reproduction of Section 075-190-100 of the GTE practices:*
- *paragraph 2.03; delete the words "are provided" from the second sentence.*
- *paragraph 2.04; change number of blankets a canister will hold from four to 3.*
- *paragraph 3.03; delete word "telephone."*

Revision Summary

31 March, 2004

Revised the "Next Planned Update". Reaffirmed the contents of the document, and reissued with minor revision.