



PROPOSED RULE PR-Misc Notice
Reg Guide

INTERNATIONAL ATOMIC ENERGY AGENCY
AGENCE INTERNATIONALE DE L'ENERGIE ATOMIQUE
МЕЖДУНАРОДНОЕ АГЕНТСТВО ПО АТОМНОЙ ЭНЕРГИИ
ORGANISMO INTERNACIONAL DE ENERGIA ATOMICA

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IN REPLY PLEASE REFER TO:
PRIERE DE RAPPELER LA REFERENCE:

1981-06-15

Dear Sir,

Attached for consideration are some comments of the Draft Regulatory Guide, designated Task TP 020-4, "Establishing Quality Assurance Programs for Packaging used in the Transport of Spent Fuel, High-Level Waste and Plutonium".

Yours sincerely,

M.C. White
Division of Nuclear Safety

Enclosure



*TP-11
Comment*

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PDR REGGD
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Acknowledged by card.. 6/23/81..mdv

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington DC 20555
U. S. A.

*H002
6/1/81*

Attention: Docketing and Service Branch

"Establishing Quality Assurance Programs for Packaging Used in the Transport of
Special Fuel, High-Level Waste and Plutonium"

General

1. The quality, i.e., the language and style, of this document is deplorable.

Many, perhaps the majority, of the statements are extremely complicated, some so much so that they are virtually incomprehensible, e.g., the opening sentence to Appendix A. It is bad enough that the Regulations are difficult to read and understand, there may be some excuse in that case, but here there is none. Guides should present information in a simple and straightforward manner.

2. "Quality" should be defined, to give meaning to the terms "quality-related activities" and "quality requirements".

The following, from (1) and (2), provide examples which might be adopted or from which a more appropriate definition might be developed (by elaboration of the term "given need" or "some stated purpose"):

"Quality is the ability to satisfy a given need, in the frame of economic possibilities"; (1)

"Quality (is) the totality of features and characteristics that bear on its ability to satisfy a given need"; (1)
(definition of the European Organization for Quality Control)

"Quality ... is a collection of attributes, characteristics, properties and behaviours which are intended to achieve some stated purpose"; (2).

Specific

3. re Section 1.1 Organization

The role and impact of "top management" needs to be given greater emphasis; the subsection which addresses this topic (currently 1.1.2) should be presented at the beginning and should reflect the points brought out below, to drive home to the most senior, the highest levels of management in an organization the responsibility they bear as regards the achievement of quality. Endorsement of the Quality Assurance Program and the establishment of a written policy by the chief officer, which can be done at the stroke of a pen, is not sufficient: all members of management, from the top to the bottom, must know and care for quality assurance.

Following are some relevant quotations:

from (3): "The principal force for securing compliance with the specifications lies not in the gauges, instructions or other faci-

lities for inspection. It lies in the state of mind of the plant personnel, from the top executives to the man on the machine."

and: "It is the actions of management which formulate the views of the subordinates as to management's real interest in quality."

Relative to the foregoing,

from (1): "As a matter of fact, the moral commitment of the management, advertising its will to produce or to furnish Quality, must be the force motivating each of the personnel."

and, from (4), which reports on the appointment of a senior vice-president to lead a Quality-Reliability Assurance program at Texas Instruments: "The most important change, however, has been to make quality and reliability improvement a part of the evaluation of managerial performance. (... in the past managers were rated on intentions only.) By treating Q+R Assurance in the same way as the bottom line of a profit and loss statement, TI has won the attention of everyone in the company. And top management is taking it seriously.

"It's only human for the line managers to pay close attention to the essentials they'll be graded on. Quality is an essential. And so is the management intervention and pressure to achieve it. Without such backing (the program) is not going to fly."

in (5) it is noted that: "An organization will not produce products better than what is perceived as the true commitment of management."

in (6) it is remarked that: "Experience indicates that a lack of appreciation on the part of management of the importance of quality control* is likely to be coupled with a lack of appreciation of the importance of detail design..."

and related to this, a quotation from the report by the (British) Feilden Committee on Engineering Design: "There is disturbing evidence of failures resulting from a lack of attention to detail in almost all fields of mechanical engineering design!"

and by the former Chairman of the (British) National Council for Quality and Reliability, describing the responsibilities of management in (2): "All procedures, especially those which may be routine and, therefore, apt to be taken for granted, have to be treated by an active and positive, not a passive, attitude. This is especially true of Q(uality) and R(eliability) activities in the right organization and with appropriate communications all down the management chain.

"Efficient senior management cannot operate or rely on assumptions that middle or lower management are actually performing their proper activities, for this may lead to similar assumptions all down the line - departmental managers assuming that foremen are doing exactly all the necessary things, and foremen assuming the same of operators."

Also relevant is the following, from (7): "Although the role played by personnel in determining licensee performance quality is important, the attitude and capability of management are the primary determinants.

* British usage, equivalent to quality assurance.

4. re Section 1, Classification in Appendix A

This concept should be deleted.

The fallacy of dividing elements of a system into safety-related and non-safety-related (or essential to safety, versus, presumably, not essential to safety) has already been proven; the aetiology of many incidents and accidents, most spectacularly the sequence of events at TMI-II, attest to this.

By all means employ a graded approach, as outlined in Section 2, Quality Categories, but apply this to the whole system.

References cited:

- (1) Smets, J. Quality Assurance: A Commitment for Management, an Indoctrination for Personnel. Proceedings of the Conference on Transfer of Nuclear Technology, Persepolis, Iran; 10-14 April 1977. Atomic Energy Organization of Iran.
- (2) Weinberg, S. Management Influence - Economics of Failure; in Safety and Failure of Components, Proceedings. Institution of Mechanical Engineers (London), 1969 - 70, Vol. 184 Pt. 3B.
- (3) Juran, J.M. ed. in chief, Quality Control Handbook, 2nd Edition, McGraw-Hill, 1962, at 10-15 and 10-22.
- (4) Walker, G.M. Quality, Reliability Top TI's List. Electronics, 24 March 1981.
- (5) Norquist, W.E. How to Increase Reliability of Consumer Products. Mech. Eng. January 1973.
- (6) Burgess, N.T. and Levene, L.M. The Control of Quality in Power Plants in Safety and Failure of Components, op. cit.
- (7) Chakoff, H.E.; Speaker, D.M.; Thompson, S.R. and Cohen, S.C. A Methodological Approach to Nuclear Licensee Performance Evaluation. in Nuclear Safety, Vol. 22, No. 1, Jan-Feb 1981.