

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Parts 260, 261, 262, 264, 265, 268 and 270****[FRL-3721-7]****Hazardous Waste Management System; Testing and Monitoring Activities****AGENCY:** Environmental Protection Agency.**ACTION:** Notice of reopening of comment period; notice of data availability.

SUMMARY: On January 23, 1989, the Agency proposed to amend its hazardous waste testing and monitoring regulations under Subtitle C of RCRA by: (1) Incorporating the Third Edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," (SW-846) into the RCRA regulations; (2) updating SW-846 with additional methods and information; and (3) mandating minimum Quality Control (QC) procedures for all RCRA testing. (See 54 FR 3212-3229, January 23, 1989.) In response to comments, EPA is considering, in addition to the option of promulgating the rulemaking as proposed, a number of technical modifications and/or clarifications to the Third Edition of SW-846 and the inclusion of specific QC procedures in SW-846 which are described in the "Report on Minimum Criteria to Assure Data Quality," which would be incorporated as Chapter One of SW-846. The Agency is also considering deleting appendices III and X to 40 CFR part 261. Therefore, the Agency is reopening the comment period on the proposal for the purpose of receiving comments, with supporting documentation, on these new options and the deletion of appendices III and X.

DATES: EPA will accept public comments on this Notice until March 12, 1990.

ADDRESSES: The public should submit an original and two copies of their comments on this Notice to the following address: EPA RCRA Docket Clerk (OS-305), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. Comments must be marked "Docket Number F-90-WTRX-FFFFF."

The administrative record for this rulemaking is located at the EPA RCRA Docket, room M-2427 at the above address, and is available for viewing from 9 a.m. to 4 p.m., Monday through

Friday, excluding Federal holidays. Call (202) 475-9327 for appointments. The public may copy a maximum of 100 pages of material from any one regulatory docket at no cost; additional copies cost \$0.15 per page.

Copies of the "Report on Minimum Criteria to Assure Data Quality" are available from the RCRA Hotline at (800) 424-9346 (toll free) or (202) 382-3000. The document number is EPA/530-SW-90-021 and there is no cost for this report. This report is also included in the administrative record (RCRA Docket).

Copies of the Third Edition of SW-846 and of the proposed Update 1 to the Third Edition are available from the Government Printing Office, Superintendent of Documents, Washington, DC 20402 (202) 783-3238. The document number is 955-001-00000-1 and the cost is \$110.00 for the four-volume set plus updates. Update packages will be automatically mailed to all subscribers.

Copies of the Second Edition of SW-846 are available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 487-4600. The document number is PB87-120-291 and the cost is \$48.95 for paper copies and \$13.50 for microfiche.

FOR FURTHER INFORMATION CONTACT:

For general information contact the RCRA Hotline at (800) 424-9346 (toll free) or (202) 382-3000. For technical information contact Charles Sellers, Office of Solid Waste, OS-331, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460, (202) 382-4761.

SUPPLEMENTARY INFORMATION:**Preamble Outline**

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IV. Request for Comments**I. Authority**

The rulemaking to which this Notice is addressed is being proposed under the authority of sections 2002, 3001, 3004, 3005, and 3006 of the Solid Waste Disposal Act, as amended (commonly known as the Resource Conservation and Recovery Act, or RCRA), 42 U.S.C. 6912, 6921, 6924, 6925, and 6926.

II. Background Summary

Subtitle C of the Resource Conservation and Recovery Act of 1976 (RCRA) creates a comprehensive national program for the safe management of hazardous waste. Associated with characterizing wastes, determining their proper management, and monitoring the performance of waste management units is a diverse group of testing methods that address the sampling and analytical procedures to be used. These methods are intended to promote accuracy, sensitivity, specificity, precision and comparability of analyses and test results.

EPA Publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", contains the testing methods that EPA has evaluated and found to be among those acceptable for RCRA testing and which are required for specific regulations as discussed below. In situations where the regulations require the use of appropriate SW-846 methods, the regulations specify use of the Second Edition of EPA's SW-846 manual (1982) as amended by Updates I (April 1984) and II (April 1985). In January, 1989, EPA proposed to amend the regulations to specify the use of the Third Edition instead of the Second Edition. For a full description and background of the proposal addressed by this Notice, refer to 54 FR 3212-3229 (January 23, 1989).

III. Discussion of Technical Modifications and Clarifications

This Notice announces several technical clarifications and modifications to the SW-846 proposal of January 23, 1989. (See 54 FR 3212-3229.) Included in these modifications is a new document, entitled "Report on Minimum Criteria to Assure Data Quality," (Report) that defines good field and laboratory practices. This document is being considered as a replacement for the previously proposed Chapter One of the Third Edition of SW-846. The

Agency is also considering making all of Chapter One (not just sections 1.2 and 1.3 of Chapter One, as proposed in the January 1989 Notice) mandatory for all RCRA testing, with the exclusion of certain reasonable and legitimate exceptions noted in Section III. B. To obtain this document, refer to the section under "ADDRESSES" of this notice.

In addition, the Agency is also considering deleting appendices III and X to 40 CFR part 261. Appendix III is unnecessary and potentially misleading, and appendix X will become obsolete upon incorporation of the Third Edition of SW-846.

The public is invited to submit comments only on the Report, and its replacement of the proposed Chapter One of SW-846, the technical clarifications and modifications to the Third Edition, and the deletion of appendices III and X to CFR 40 part 261 as addressed by this Notice. This Notice does not reopen the comment period on any other aspect of the January 23, 1989 rulemaking proposal. All timely comments submitted on the new information contained in today's notice together with all the timely comments previously submitted in response to the January notice, will be considered in preparation of a final rulemaking.

A. General Introduction

The nature of SW-846 is such that procedures are written to determine analytes at low concentrations, e.g., parts per million (ppm) or parts per billion (ppb). Testing under RCRA, however, requires the analysis of a broad range of matrices (e.g., water, soil, clay, nonaqueous liquids, process residues, ash) and a broad range of concentrations (e.g., ppb to percent levels). No one set of testing procedures is, therefore, uniformly applicable. This problem often may be overcome by providing a selection of sample preparation (including dilution, concentration, sample size adjustment, etc.), cleanup, and determinative procedures from which the analyst can select the proper analytical procedure to be used in an individual situation. For example, when analyzing a relatively clean ground water sample for a semi-volatile organic compound, it may be sufficient to employ a sample preparation procedure, Method 3510, coupled with determinative procedure, Method 8270. On the other hand, if one must analyze a wastewater containing compounds that interfere with the determination of the compounds of interest, the analyst will have to employ one of the cleanup methods prior to using the determinative procedure in

Method 8270. The various preparation, cleanup, and determinative procedures are listed in the appropriate sections of SW-846. Except for those situations where the RCRA regulations specify use of a particular method, it is appropriate for the chemist to use judgment, tempered by experience, in selecting an appropriate set of methods from SW-846 or the scientific literature for preparing and analyzing a given sample.

B. Specific Issues

1. Quality Control

In the January 1989 Notice of Proposed Rulemaking (NPRM), the Agency proposed to make certain Quality Control (QC) procedures mandatory for all testing and analysis conducted to comply with the hazardous waste regulations under subtitle C of RCRA. The January proposal represents one part of EPA's program to establish and require minimum QC procedures for all RCRA-related testing and analysis. The goal of this effort is to ensure consistent and correct application of appropriate methods and to produce data of known and documented quality.

The proposed QC procedures to be followed are found in the revised Chapter One of the Third Edition of SW-846, Update 1 (specifically sections 1.2 and 1.3, and procedures referenced therein). Because of the wide reaching nature of these procedures and their importance to the RCRA program, the Agency received many comments on this QC procedures chapter. In addition, the Agency received the assistance of the American addition, the Agency received the assistance of the American Society for Testing and Materials (ASTM) in clarifying the QC requirements and definitions.

Based on the comments received and other new information, the Agency has revised Chapter One of the Third Edition of SW-846. These revisions are contained in a document entitled "Report on Minimum Criteria to Assure Data Quality." The Agency is also considering making all of Chapter One (not just sections 1.2 and 1.3 of Chapter One, as proposed in the January 1989 notice) mandatory for all RCRA testing, with the exclusion of certain reasonable and legitimate exceptions noted below. The Agency is considering adopting these revisions as Chapter One of the Third Edition of SW-846 in the final rule. These technical revisions provide definitions and procedures necessary for generating data of known and documented quality when performing RCRA-related sampling and analysis activities. The Agency believes that this revised Chapter One will better meet the

needs of the regulated community as well as the regulatory agencies and, therefore, solicits comments on the proposed revisions.

2. Required Versus Optional Use of SW-846 Testing Methods

Certain hazardous waste regulations under Subtitle C of RCRA require that specific testing methods described in the identified edition of SW-846 be employed for certain applications. These required methods and regulatory citations (40 CFR parts 260-270) are the ones specified for determining whether: (1) Wastes exhibit the characteristics of corrosivity or toxicity, §§ 261.22(a) and 261.24(a); (2) for determining if wastes contain free liquids, §§ 264.314(a) and 265.314(d); (3) for any testing done in support of a petition for delisting of a waste, § 260.22(d)(1)(i); and (4) for testing during a trial burn in support of an application for a hazardous waste incineration permit § 270.62(b)(2)(i)(C). For other RCRA testing and monitoring needs, any reliable analytical methods may be used to meet the regulatory requirements. This notice, or the subsequent final rule, should not be construed to require the use of SW-846, Third Edition methods except where specifically prescribed by regulation. In addition, unless specifically required in SW-846 or this rule, regulatory agencies (and others) need not be required to use the full Chapter One quality control procedures when they are faced with situations (such as those described below) where the specific application of the quality control procedures may not be appropriate.

The testing methods and approaches described in SW-846 are designed primarily for use by persons to demonstrate that a regulatory threshold has not been exceeded. Because of this focus, the Agency has received questions regarding the applicability of SW-846 to other types of activities. For example, in the majority of cases the regulated community uses SW-846 methods to prove that a waste does not contain a given analyte at a specific concentration or does not exhibit a hazardous waste characteristic. (Demonstrating that a waste is not a hazardous waste is hereinafter referred to as proving the negative).

The sampling strategy for these situations (proving the negative) should be thorough enough to insure that one does not conclude a waste is non-hazardous when, in fact, it is hazardous. For example, one needs to take enough samples so that one does not miss areas of high concentration in an otherwise clean material. Samples must be

handled so that properties do not change and contaminants are not lost. The analytical methods must be quantitative, and regulatory detection limits must be met and documented.

While the regulated community is concerned with proving the negative, or absence of any hazardous constituents or characteristics, regulatory agencies are often concerned with demonstrating the opposite—that the waste concentration of a specific analyte in a waste, exceeds a regulatory level, or that the waste exhibits a hazardous waste characteristic. (Hereinafter referred to as proving the positive).

Sampling strategies for these situations (proving the positive) often do not require a precise determination of the actual magnitude of the property. If a sample possesses the property of interest, or contains the constituent at a high enough level relative to the regulatory threshold, then the population from which the sample was drawn must also possess the property of interest or contain that constituent. Depending on the degree to which the property of interest is exceeded, testing of samples which represent all aspects of the waste or other material may not be necessary to prove that the waste is subject to regulation.

Likewise, a sample need not always be handled to prevent losses because if the sample contains the constituent above a regulatory level even with losses, then clearly the level has been exceeded. Therefore, use of methods to show that a level has been exceeded need not always be quantitative, but could simply be qualitative or semi-quantitative. The results for qualitative or semi-quantitative determinations are often expressed by stating that the sample contains a minimum amount of analyte. Well defined detection limits, adequate analyte recoveries, and high degrees of precision are not always necessary attributes of methods used to make such determinations. Simply proving a compound present (selectivity) in the waste and that its concentration is greater than a regulatory limit are the important attributes.

While quality control requirements address both positive showings and negative showings equally, some procedures or steps in a method, which are quality control related, may only be important in those sampling and analytical determinations performed to ensure that the trace concentrations of hazardous constituents are accurately measured. For example, holding times are considered a quality control issue. However, there are cases (explained below) where adherence to a specific holding time has little or no impact on

the adequacy of a regulatory determination. While SW-846 sampling and laboratory practices and QC procedures are generally appropriate when testing to show either a positive or negative situation, the full panoply of Chapter One QC procedures may not always be needed. An example of a QC procedure, such as a matrix spike, that does not apply is where one is to determine whether a waste exhibits the characteristic of corrosivity or whether it contains free liquids. In these cases spiking does not apply because spiking would change the sample's behavior and the results would be meaningless. Another example is when characterizing a high concentration liquid waste for ignitability. Here a field blank is not applicable since ignitability testing is a "yes/no" type test (i.e., the liquid is ignitable or its not). Thus, a field blank has no relevance in this case.

Furthermore, some of the chemical analysis test methods set forth in appendix III to 40 part 261 would not be appropriate for demonstrating that a sample contains a constituent because the working concentration range of the method is much lower than the concentration of the sample. This point is covered in more detail in the next section; however, it is noted that sections of SW-846 (beyond Chapter One) require some revision to better clarify the applicability of certain tests.

Therefore, the Agency intends to revise the discussion of the applicability of some quality control procedures used in SW-846, beyond the changes made to Chapter One, using language similar to that provided above, to make these types of distinctions.

3. Trace Analysis vs Macroanalysis

Implicit in the preceding argument is the fact that SW-846 was designed largely for use in showing that a waste does not contain certain hazardous constituents or characteristics. In that regard, many SW-846 sample preparation methods are designed around trace analysis rather than the percent level determinations often required for concentrated wastes. These methods, however, might be suitable for percent level determination analysis when appropriately modified by the analyst.

For example, it is permissible to adjust the sample preparation methods prior to determination when the concentrations of the target analytes in the samples are known or believed to fall outside of the linear operating range of the analytical instrument used for measurement. The Agency has always believed that when very concentrated samples are analyzed, dilution or

reduction in size of the sample aliquot tested may be needed to assure that the analytical values obtained are within the linear operating range of the instrument. Furthermore, the Agency understands that the analyst may elect to use smaller samples and/or dilution when concentrations exceed the capacities of reagents or columns stated for use in the methods. In addition, it may be necessary to use the alternative techniques described in existing methods for the introduction of a sample into an instrument when high concentrations of target analytes are known or believed to exist. An example of this would be the use of the direct injection method for sample introduction rather than the purge and trap technique when the sample contains high concentrations of volatile organic compounds. However, the analyst must make particular note of any deviations from the published methodology when reporting the results of the analysis.

The Agency anticipates making changes in the final promulgation to SW-846 that will allow the analyst needed latitude regarding sample size, sample dilution, sample concentration, and choice of analytical methodology when macroanalysis is performed. These changes would consist of adding a discussion similar to the one above to appropriate chapters and methods contained in SW-846. The Agency requests comment on these anticipated changes.

4. Equipment Standards and Reagent Preparation

In each analytical method in SW-846, detailed specifications are given relative to the type and size of individual glassware and other apparatus, and to the preparation of reagents such as stock standard solutions. This specificity derives, in part, from the desire to give as much assistance as possible to the analyst and to ensure uniform testing protocols.

Since many types and sizes of glassware and supplies are commercially available, and since it is possible to prepare reagents and standards in many different ways, some of those given in the methods may be replaced by any similar types as long as substitution does not affect the overall quality of the analyses.

For example, vials are frequently specified as glass "with a Teflon-lined screw-cap." An acceptable alternative could be Teflon-lined crimped top vials. Similarly, reagents can be prepared in any quantity appropriate to achieve optimum efficiency of laboratory operations, provided that concentrations

specified in the methods remain unchanged. For example, the 10N NaOH specified in Method 3510 can be made up in any volume provided that the proportion of 40g NaOH per 100 ml of solution remains constant.

The Agency considers that the substitution of equivalent glassware and equipment would meet the overall requirements for quality control, and believes that this flexibility is important for the analytical chemist to be able to meet a variety of needs. However, the Agency is concerned that the public not interpret this flexibility in ways that would substantially affect the analyses. One principle to keep in mind is that this flexibility applies, in general, to volume capacity (size) and make or brand name of glassware and equipment, but not to the function or type of equipment specified. Similarly, when mixing batches of standard reagents, the size of a batch is not important except that there be enough for its intended use. What is important in the preparation of standards and reagents is the designated concentration and purity of the final product.

The Agency anticipates making changes in the final promulgation to SW-846 that will explicitly permit the analyst latitude regarding choice of glassware and equipment based on the discussion above. These changes will consist of adding a discussion similar to the one above to SW-846. The Agency requests comment on these anticipated changes.

5. Holding Times

Use within the Agency of holding times and preservation techniques originated with the National Pollutant Discharge Elimination System (NPDES), authorized under the Clean Water Act (CWA), which was concerned with the loss of trace level contaminants from wastewater samples collected and analyzed under a self-monitoring program. This practice is continued under the Contract Laboratory Program (CLP) and authorized under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which implements essentially the same holding times and preservatives for all water samples containing low contaminant levels.

Holding times and preservation techniques are currently under study by the Agency. As yet, no study has been published to indicate that highly contaminated materials require such measures to preserve their integrity.

Like the other Agency programs, SW-846 has adopted many of these recommended holding times. The Agency recognizes that these holding

times were designed for aqueous samples containing trace levels of contaminants. These samples must be extracted and/or analyzed within the specified holding time for the results to be considered reflective of total values. Results of samples not analyzed within the specified holding time will be considered minimum values. That is, the actual concentration will be assumed for regulatory purposes to be equal to or greater than the concentration determined after the holding time has expired. The Agency anticipates making changes in the final promulgation to SW-846 that will permit the analyst latitude regarding implementation of holding times based on the discussion above. These changes will consist of adding a discussion similar to the one above to SW-846. The Agency requests comment on these anticipated changes.

6. Representative Sampling

Comments received on the January 1989 proposal revealed a great deal of confusion over what constitutes representative sampling in relation to the sampling approach used in a specific case. Current regulations require that representative sampling be performed when assessing wastes for hazardous characteristics. The issue becomes "what is the sample meant to represent". The Agency offers the following four examples to clarify its interpretation of representative sampling.

(1) Materials comprised of particles of extremes in density or size are, at times, difficult to representatively sample. An example is a large pile of smelter slag where particles range in size from dust particles to 1300 lb casts. In such cases, non-random sampling based on the experience and judgment of the person performing the sampling may be employed (e.g., collecting particles less than 1/2 inch in diameter). This non-random sample provides a reasonable approximation to a random sample since large particles are expected to have similar composition to smaller ones because they resulted from the same process. Furthermore, this non-random sample is expected to be "representative" of the pile since the composition of small and large particles are similar. Care must be taken to ensure that the purpose of the sampling is considered when conducting non-random sampling. For the above example, the chemical composition of the waste may be independent of particle size; however, properties of the waste such as its leaching potential may still be dependent on particle size.

(2) Obtaining a representative sample of high volume wastes presents a major

sampling challenge. Mining residues, for example, may occupy hundreds of acres, making representative sampling of the entire waste very difficult. In such cases, replicate composites composed of random grab samples of the readily available material (e.g., residues within 12 inches of the surface) may be taken. Conclusions regarding the level of hazard of the waste can be drawn by examining the variability of the values obtained on replicate composites. The sampling, compositing and data evaluation process is then repeated until the confidence in the representativeness of the mean reaches the desired level (e.g., less than 10% probability that the true mean is above an appropriate regulatory threshold). The concept is that while each individual sample or even composite may not be representative of the residue, the sum total of samples taken will represent the average property of the waste even though the entire waste stream was not sampled.

(3) In some very limited situations, because the bulk of the waste material is unavailable and decisions need to be made on a limited amount of the remaining material, and where it is unclear whether a sample is representative of a waste, the Agency will assume that the available material is representative of the waste unless proven otherwise. For example, it is not always possible to obtain a representative sample of a hazardous waste that has been illegally disposed, when all that is left for testing is a drum containing only residues of the waste. In such an instance, a representative sample of that residue is assumed to represent the waste that was in the drum, and conclusions regarding the hazardousness of the waste can be drawn.

(4) One aspect of the representative sampling issue that warrants clarification is the situation in which a body of waste to be characterized may be composed of a number of different wastes. For example, a disposal site is found that contains components of qualitatively different properties (e.g., color, composition, physical state) and the question to be answered is whether hazardous waste was disposed of at the site. In this case, one is faced with the situation, not of sampling all components at the site, but rather of sampling one or more individual components of the body of waste at the site. Each of the qualitatively different components (materials) could be a discrete waste, and the concept of representative sampling would refer to sampling of each discrete waste rather

than sampling all of the waste at the site as a whole. Therefore, when faced with such a situation, the sampler would identify the components of the waste site to be characterized and would obtain data representative of the properties of each component of interest. The decision as to whether or not the site contains hazardous waste would, therefore, hinge on whether any of the individual components disposed were hazardous, and not on whether the average of all of the components at the site exhibit the properties of hazardous waste.

The Agency anticipates adding a discussion similar to the one above to SW-846. The Agency requests comment on this addition.

7. Analysis of Nonaqueous Liquids for Elemental Species

Sample preparation methods are not currently available in SW-846 to render nonaqueous liquids in a form that can be analyzed by the atomic absorption or inductively coupled plasma atomic emissions (ICP) type analytical methods for six important elements. These elements are: mercury, arsenic, selenium, lead, barium, and silver. Lack of appropriate SW-846 methods may hinder compliance with various RCRA regulations.

To correct this deficiency, EPA is currently developing a microwave digestion method. In addition, the Agency is considering the approval of a method currently available as "Test Method C—Bomb, Acid Digestion Method" as found in ASTM Method E926-88: "Methods of Preparing Refuse-Derived Fuel (RDF) Samples for Analyses of Metals". Method E926-88 is available from the American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103, telephone number (215) 299-5585. Together, these two methods (microwave digestion and bomb, acid digestion) will provide procedures to prepare nonaqueous liquids for elemental analysis.

Pending final action on incorporation of these methods into SW-846 for nonaqueous samples, the Agency believes that the results from Test Method C of ASTM Method E926-88 are valid as long as the recommended quality assurance and quality control procedures specified in the proposed Report and this method (Test Method C of ASTM Method E926-88) are followed.

8. Matrix Spikes and Method of Standard Additions

The Agency has received many questions about the use of a matrix spike (sometimes referred to as the

method of known addition) and the method of standard additions (MSA). Specifically, many chemists performing metals analyses believe that MSA, particularly where internal standards are used, is not necessary and is an unwarranted burden and have asked for clarification regarding the use of both matrix spikes and MSA.

The Agency has always recommended the use of matrix spikes and standard additions to assure accuracy as part of the RCRA program. The Agency requires the method of standard additions when analyzing EP Toxicity leachates in support of delisting petitions, and when analyzing new matrices (to determine whether there are suppressive interferences). The Agency considers that these methods (MSA and matrix spikes) are always appropriate although MSA may not always be required. Furthermore, when comparing the results from different analyses of the same sample for the same analyte, the determination made using the method of standard addition is preferable over one that does not.

9. Spike Recovery Correction

Matrix spike recoveries are used to determine whether the analytical procedure is effective and to permit normalization of results to 100%. (Note: the recoveries of the analytes in the matrix spike mixture must be representative of all target analytes or the individual target analytes must be spiked into the matrix to determine percent recovery.) For purposes of RCRA testing, the Agency believes it is appropriate to correct a measured concentration for recovery. Therefore, in response to questions, the Agency is proposing to add the following language to Chapter One of SW-846, Third Edition:

The bias determined from the matrix spike information shall be used to correct the measured values. Details on the calculations are provided in the glossary under the definition of bias.

Insert in glossary:

Bias (B)

The deviation of the measured value (X_c) from an accepted reference value (T) or a known spiked amount (K). Bias can be assessed by comparing a measured value to an accepted reference value in a sample of known concentration or by determining the recovery of a known amount of contaminant spiked into a sample. Thus, the bias is calculated as:

$$B = X_c - T$$

or

$$B = (X_s - X_u) - K$$

where

X_r = measured value for reference value,
 X_s = measured value for spiked sample,
 X_u = measured value for unspiked sample,
 and
 K = known value of the spike in the sample.

Using the following equations yields the percent recovery (%R). The value of %R is then used to correct the measured values for that batch of data. Thus,

$$\%R = 100(X_r/T)$$

$$\text{or}$$

$$\%R = 100(X_s - X_u)/K$$

and

$$X_c = 100(X_u/\%R)$$

where X_c = corrected value.

10. Reagent Grade Water

Finally, the Agency has had many requests for clarification regarding the level of purity needed for the reagent grade water used when conducting tests. The Agency defines reagent water (for RCRA purposes) as water which is generated by any method which would achieve the performance specifications for ASTM Type II water.

For volatile analyses, it is recommended that reagent water be further treated by one of the following methods:

(1) Pass the water through a carbon filter bed containing approximately 500 grams of activated carbon (Calgon Corp. Filtrasorb-300 or equivalent);

(2) Pass the water through a purification system (Millipore Super-Q or equivalent); or

(3) Boil water for 15 minutes and then, while maintaining the water temperature at 85 °C to 95 °C, bubble a contaminant free inert gas (e.g., nitrogen) through the water for 1 hour. While still hot, transfer the water to a narrow mouth screw-cap bottle under zero-headspace and seal with a Teflon-lined septum and cap.

The Agency further recommends that reagent water should be monitored periodically for impurities as part of the laboratory's QA program.

For a method blank to be acceptable for use with the accompanying samples, the concentration in the blank of any analyte of concern must be no higher than the highest of either:

- (1) The detection limit, or
- (2) Five percent of the regulatory limit for that analyte, or
- (3) Five percent of the measured concentration in the sample.

In addition, the method blank must contain no other impurities at a concentration which will affect the performance of the method.

These technical points are being considered for inclusion in the Third Edition of SW-846 at this time, and comment is requested.

11. Appendices III and X to 40 CFR Part 261

The Agency is considering removing appendices III and X of part 261 from the regulations. Appendix III summarizes information found in SW-846 for the convenience of the regulated community. It does not contain any additional or independent requirements. In addition, as currently framed, appendix III implies that use of SW-846 is mandatory in all instances. This is not the case. SW-846 is required for use in only certain well defined instances (see 54 FR 3212-3229, January 23, 1989). To remove any ambiguity, the Agency is considering removal of appendix III in its entirety.

Appendix X was established to meet the needs for the chemical analysis of certain wastes containing particular chlorinated dioxins, dibenzofurans, and phenols in order to establish those wastes as acutely hazardous (see 50 FR 1978-2006, January 14, 1985). Appendix X contains Method 8280: Method of Analysis for Chlorinated Dibenzo-P-Dioxins and Dibenzofurans. This method is superseded by the method contained in the Third Edition of SW-846, which is retitled Method 8280: The Analysis of Polychlorinated Dibenzo-P-Dioxins and Polychlorinated Dibenzofurans. To avoid any ambiguity, the Agency is considering removal of appendix X in its entirety. Therefore, the Agency is requesting comments on removal of appendices III and X from the Code of Federal Regulations.

The Agency's regulations contain no references to appendix X. The Agency proposed to delete references to appendix III in its regulations as follows:

—Delete "Appendix III" in 40 CFR 260.22(d)(1)(i) and insert in its place "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference, see § 260.11(a)";

—Delete "referenced in 40 CFR part 261, appendix III" in 40 CFR 270.19(c)(1)(iii) and insert in its place "§ 260.11(a)";

—Insert "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA publication SW-846, incorporated by reference, see § 260.11(a), or * * * in 40 CFR 260.11(b)(5) after the words "those prescribed in," in 40 CFR 260.20(a) after the words "testing or analytical method to," in 40 CFR 260.21(a) after the words "testing or analytical method to" and after the words "method," prescribed in," and in 40 CFR 260.21(b)(3) after the words "methods prescribed in."

IV. Request for Comments

The Agency requests comments on: (1) The specific clarifications and/or changes in procedures for use and interpretation of guidance from the RCRA test methods manual, SW-846 discussed above; (2) The "Report on Minimum Criteria to Assure Data Quality" and its replacement of the proposed Chapter One to SW-846 as discussed in the January 1989 Notice; and (3) on the deletion of appendices III and X to 40 CFR part 261. It should be noted that the Agency is only reopening the comment period on these specific points presented in this Notice.

Comments on this Notice must be received by EPA on or before March 12, 1990, to ensure consideration. Comments are to be addressed, in triplicate, to Docket Number F-90-WTRX-FFFFF.

Dated: January 29, 1990.

Mary A. Ceade,

Acting Assistant Administrator for Solid Waste and Emergency Response.

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DEPARTMENT OF TRANSPORTATION**Research and Special Programs Administration****49 CFR Parts 171, 172, 173, 174, 175, 176, 177, and 178**

[Docket No. HM-169A; Notice No. 90-1]

Transportation Regulations; Compatibility With Regulations of International Atomic Energy Agency; Extension of Comment Period

AGENCY: Research and Special Programs Administration (RSPA), Department of Transportation (DOT).

ACTION: Extension of time to file comments.

SUMMARY: On November 14, 1989, RSPA published a notice of proposed rulemaking (NPRM) in the *Federal Register* (54 FR 47454); Docket No. HM-169A, Notice No. 89-8) which proposed to align DOT's Hazardous Material Regulations (HMR; 49 CFR parts 171-180) with the 1985 Edition of the International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Materials, Safety Series No. 6. Because of the broad scope, detail and complexity of the proposals contained within the NPRM, The Radiopharmaceutical Shippers and Carriers Conference, and others, requested a 90 day extension of the comment period. RSPA concurs with

these requests and this notice extends that comment period.

DATES: The date for filing the comments is extended from February 9, 1990, to May 11, 1990.

ADDRESSES: Address comments to Dockets Unit (DHM-30), Office of Hazardous Materials Transportation, RSPA, U.S. Department of Transportation, Washington, DC 20590. Comments should identify the docket and notice number and be submitted, when possible, in five copies. Persons wishing to receive confirmation of receipt of their comments should include a self-addressed stamped postcard. The Dockets Unit is located in Room 8419 of the Nassif Building, 400 Seventh Street, SW., Washington, DC 20590. Office hours are 8:30 a.m. to 5:00 p.m. Monday through Friday, except federal holidays.

FOR FURTHER INFORMATION CONTACT: Michael E. Wangler, Chief, Radioactive Materials Branch, Technical Division, Office of Hazardous Materials Transportation, 400 Seventh Street SW., Washington, DC, 20590, (202) 366-4545.

Issued in Washington, DC on February 2, 1990, under authority delegated in 49 CFR part 106, Appendix A.

Alan I. Roberts,

Director, Office of Hazardous Materials Transportation.

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National Highway Traffic Safety Administration**49 CFR Part 571**

[Docket No. 90-02; Notice 1]

RIN 2127-AD22

Federal Motor Vehicle Safety Standards; New Pneumatic Tires

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to implement the petition by the European Tyre and Rim Technical Organisation (E.T.R.T.O.) requesting that NHTSA amend its labeling requirements in Standard No. 109, *New Pneumatic Tires—Passenger Cars* to require a manufacturer to place the required markings between the bead and a point one-half the distance from the bead to the shoulder of the tire, if the tire's maximum section width is close to the bead. This amendment would add to Standard No. 109 a provision previously added by the agency to another tire standard, the one related to tires on