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DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

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[Docket No. FDA-2008-N-0163] (formerly Docket No. 2001N-0067)

Dental Devices: Classification of Encapsulated Amalgam Alloy and Dental Mercury and Reclassification of Dental Mercury; Issuance of Special Controls for Amalgam Alloy; Reopening of Comment Period

AGENCY: Food and Drug Administration, HHS.

ACTION: Proposed rule; reopening of comment period.

SUMMARY: The Food and Drug Administration (FDA) is reopening for 90 days, the comment period for the proposed rule, published in the **Federal Register** of February 20, 2002 (67 FR 7620), on the classification of encapsulated amalgam alloy and dental mercury, the reclassification of dental mercury, and the issuance of special controls for amalgam alloy. In the **Federal Register** of July 17, 2002 (67 FR 46941), the initial comment period was reopened for 60 days. The agency is taking this action to provide the public with an additional opportunity to comment and to request data and information that may have become available since publication of the proposed rule.

DATES: Submit written or electronic comments by [*insert date 90 days after date of publication in the Federal Register*].

ADDRESSES: You may submit comments, identified by Docket No. FDA-2008-N-0163 (formerly Docket No. 2001N-0067), by any of the following methods:

Electronic Submissions

Submit electronic comments in the following way:

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FDA-2008-N-0163

NEC

- Federal eRulemaking Portal: <http://www.regulations.gov>. Follow the instructions for submitting comments.

Written Submissions

Submit written submissions in the following ways:

- FAX: 301–827–6870.
- Mail/Hand delivery/Courier [For paper, disk, or CD–ROM submissions]:

Division of Dockets Management (HFA–305), Food and Drug Administration,
5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

To ensure more timely processing of comments, FDA is no longer accepting comments submitted to the agency by e-mail. FDA encourages you to continue to submit electronic comments by using the Federal eRulemaking Portal, as described previously, in the **ADDRESSES** portion of this document under *Electronic Submissions*.

Instructions: All submissions received must include the agency name and Docket No(s). and Regulatory Information Number (RIN) (if a RIN number has been assigned) for this rulemaking. All comments received may be posted without change to <http://www.regulations.gov>, including any personal information provided. For additional information on submitting comments, see the “How to Submit Comments” heading of the **SUPPLEMENTARY INFORMATION** section of this document.

Docket: For access to the docket to read background documents or comments received, go to <http://www.regulations.gov> and insert the docket number, found in brackets in the heading of this document, into the “Search” box and follow the prompts and/or go to the Division of Dockets Management, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Michael E. Adjodha, Center for Devices and Radiological Health (HFZ-480), Food and Drug Administration, 9200 Corporate Blvd., Rockville, MD 20850, 240-276-3688.

SUPPLEMENTARY INFORMATION:

I. Background

In the **Federal Register** of February 20, 2002 (67 FR 7620), FDA published a proposed rule entitled “Dental Devices: Classification of Encapsulated Amalgam Alloy and Dental Mercury and Reclassification of Dental Mercury; Issuance of Special Controls for Amalgam Alloy.” In that document, FDA proposed the following actions: (1) Issue a separate classification regulation for encapsulated amalgam alloy and dental mercury; (2) amend the classification for amalgam alloy by adding special controls; and (3) reclassify dental mercury from class I (general controls) to class II. FDA proposed that all three products would have the same labeling guidance as a special control. In addition, FDA proposed that dental mercury would have a voluntary American National Standards Institute (ANSI) standard as a special control; encapsulated amalgam alloy and dental mercury would have voluntary ANSI and International Standards Organization (ISO) standards as special controls; and the amalgam alloy products would have a voluntary ISO standard as a special control. Since that time, a 2006 joint meeting of the Dental Products Panel and the Peripheral and Central Nervous System Drugs Advisory Committee raised the need for FDA to further consider scientific issues that are potentially relevant to this classification and we seek additional comments on the proposed classification.

In an effort to provide an update on the latest scientific information concerning dental amalgam, a working group of the U.S. Department of Health

and Human Services, known as the Trans-agency Working Group on the Health Effects of Dental Amalgam, commissioned a new review of the scientific literature in 2004 (the 2004 review). The 2004 review, funded by the National Institutes of Health in cooperation with FDA, the Centers for Disease Control and Prevention, and the Office of the Chief Dental Officer of the Public Health Service, was completed in 2004 by Life Sciences Research Office, Inc. (LSRO). LSRO engaged an independent panel of experts from academia with preeminent qualifications and experience in the appropriate scientific disciplines needed for the 2004 review. The 2004 review was a systematic and comprehensive evaluation of approximately 300 peer-reviewed studies of dental amalgam and mercury vapor published from 1996 through 2003, intended to determine whether these studies provided new evidence related to the health effects of dental amalgam in humans. The panel concluded that the studies contained insufficient evidence to support a correlation or causal relationship between exposure to dental amalgam and kidney or cognitive dysfunction; neurodegenerative disease (specifically Alzheimer's disease and Parkinson's disease); autoimmune disease (including multiple sclerosis); or adverse pregnancy outcomes (Refs. 1 and 2).

Dental amalgam was the subject of an advisory committee meeting in 2006. As announced in the **Federal Register** of April 3, 2006 (71 FR 16582), on September 6 and 7, 2006, FDA held a joint meeting of the Dental Products Panel and the Peripheral and Central Nervous System Drugs Advisory Committee (the 2006 joint committee). The 2006 joint meeting was held to discuss and make recommendations to FDA on a draft FDA White Paper (2006 draft White Paper) (Ref. 3) regarding the potential adverse health risks associated with exposure to mercury in dental amalgam. The goal of the 2006

draft White Paper was to provide an assessment and conclusions regarding significant new information and health risks from mercury in dental amalgam and to build on previous Public Health Service literature reviews and risk assessments (1993 and 1997) and reviews by other Federal agencies since 1997. The 2006 joint committee, comprised of 24 panelists, heard presentations from the following groups: (1) Scientists; (2) regulatory officials from Canada and Sweden, on the scientific basis for the regulation of dental amalgam in their respective countries; and (3) FDA, on how the United States has regulated and evaluated dental amalgam. Numerous public speakers also presented their views.

The 2006 joint committee then deliberated on a series of questions FDA had posed on its draft review of the dental amalgam literature and provided recommendations to the agency related to those questions (Ref. 4). By majority vote, the committee concluded that FDA's draft White Paper had significant limitations. Among its criticisms, the 2006 joint committee identified insufficient explanation about the following: (1) How the scientific references were chosen; (2) failure to identify the significant gaps in the scientific knowledge, particularly with respect to exposure limits; and (3) lack of attention to sensitive subpopulations. The majority of the 2006 joint committee voted that it could not find the conclusions of the draft White Paper to be "reasonable."

Despite the limitation on the draft White Paper, the 2006 joint committee generally agreed that there is no evidence that dental amalgams cause health problems. The 2006 joint committee also agreed that the most recent well-controlled clinical studies, including two prospective clinical studies in children (Refs. 5 and 6), showed no evidence of neurological harm from dental

amalgams. In addition, a more recent article corroborated this evidence (Ref. 7). Panelists provided individual recommendations, including recommendations that FDA consider requirements related to the use of dental amalgam in pregnant women and small children, as well as patient information to ensure that consumers understand that these devices contain mercury.

II. Reopening of the Comment Period

FDA believes it is important for members of the public to have the opportunity to further comment on FDA's proposal. Accordingly, FDA is asking for comments concerning whether these devices should be classified into class II (special controls). We specifically request comments supported by empirical data and scientific evidence concerning this classification and these special controls. In addition, if class II (special controls) is the appropriate classification for these devices, FDA requests comment on whether the two types of special controls proposed by FDA in 2002 (materials and labeling) provide reasonable assurance of the safety and effectiveness of these devices and on whether the proposed special control guidance document should be revised in light of the recommendations and with respect to the discussions by the 2006 joint committee.

- **Controls on the Materials.** For example, should the material controls proposed by FDA address conformance to recognized consensus standards that make recommendations for testing, compressive strength, and identifying the mercury vapor released by the device?

- **Labeling Controls.** For example, how should labeling controls, if any, address the disclosure of composition, including mercury content, and precautions regarding use of the device in sensitive subpopulations composed of individuals who respond biologically at lower levels of exposure to mercury

than the general population? If so, which subpopulations should be included (e.g., children under age 6, pregnant and lactating women, hypersensitive or immunocompromised individuals)? Should the labeling controls require more specific patient labeling (e.g., informing patients of identified sensitive subpopulations of the mercury content, the alternatives to the device and their relative costs, and health risks associated with the failure to obtain dental care)?

For the agency's future analysis of benefits and costs of the regulatory options for dental amalgams, FDA also requests comments, including available data, on the following questions:

(1) How many annual procedures use mercury amalgams? What are the trends?

(2) What are the differences in cost between amalgams and alternative materials (e.g., composite, other metals, ceramics, etc.)? Are there differences in replacement lives?

(3) What are reimbursement rates for dental amalgam and the alternative materials?

(4) How would labeling describing the risks of amalgam for certain subpopulations (e.g., children under age 6, pregnant and lactating women, hypersensitive or immunocompromised individuals) affect the demand for, and use of, mercury amalgam? How would the risks included in the labeling be communicated to those subpopulations?

(5) What is the current exposure to mercury for patients? For professionals? What would be the reduction in exposure associated with the alternatives described previously in this section of this document?

III. How to Submit Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) written or electronic comments regarding this document. Submit a single copy of electronic comments to <http://www.regulations.gov> or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

Please note that on January 15, 2008, the FDA Division of Dockets Management Web site transitioned to the Federal Dockets Management System (FDMS). FDMS is a Governmental-wide, electronic docket management system. Electronic comments or submissions will be accepted by FDA only through FDMS at <http://www.regulations.gov>.

IV. References

The following references have been placed on display in the Division of Dockets Management (see **ADDRESSES**) and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday.

1. Review and Analysis of the Literature on the Potential Adverse Health Effects of Dental Amalgam, LSRO, July 2004.
2. Brownawell, A.M., et al., "The Potential Adverse Health Effects of Dental Amalgam," *Toxicological Reviews*, 24(1):1-10, 2006.
3. Draft FDA Update/Review of Potential Adverse Health Risks Associated With Exposure to Mercury in Dental Amalgam, National Center for Toxicological Research, FDA, August 2006.
4. Transcripts from the Joint Meeting of Dental Products Panel and Central Nervous System Drugs Advisory Committee, September 6 and 7, 2006.

5. Bellinger, D.C., et al., "Neuropsychological and Renal Effects of Dental Amalgam in Children: A Randomized Trial," *Journal of the American Medical Association*, 295:1775–1783, 2006.

6. DeRouen, T.A., et al., "Neurobehavioral Effects of Dental Amalgam in Children: A Randomized Clinical Trial," *Journal of the American Medical Association*, 295:1784–1792, 2006.

7. Dunn, Julie E., "Scalp hair and urine mercury content of children in the Northeast United States: The New England Children's Amalgam Trial," *Environmental Research*, Vol. 107, Issue 1, pages 79 to 88, May 2008.

Dated: 4/22/08
April 22, 2008.



Randall W. Lutter,
Deputy Commissioner for Policy.

[FR Doc. 08-????? Filed ??-??-08; 8:45 am]

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