DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Center – WO66-G609
Silver Spring, MD 20993-0002

DePuy Orthopaedics, Inc.
% Mr. Steven J. Wentworth
Regulatory Affairs Project Manager
P.O. Box 988
700 Orthopaedic Drive
Warsaw, Indiana 46581-0988

April 2, 2013

Re: P070026/S004
DePuy Ceramax Ceramic Total Hip System
Filed: December 2, 2011
Amended: January 11, 2012; May 1, 2012; June 4, 2012; August 1, 2012; November 9, 2012
Procode: MRA

Dear Mr. Wentworth:

The Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration (FDA) has completed its review of your premarket approval application (PMA) supplement for DePuy Ceramax Ceramic Total Hip System. This device is indicated for noncemented use in skeletally mature individuals undergoing primary total hip replacement surgery for rehabilitation of hips damaged as a result of noninflammatory degenerative joint disease (NIDJD) or any of its composite diagnoses of osteoarthritis, avascular necrosis, and post-traumatic arthritis. We are pleased to inform you that the PMA supplement is approved. You may begin commercial distribution of the device as modified in accordance with the conditions of approval described below.

The sale and distribution of this device are restricted to prescription use in accordance with 21 CFR 801.109 and under section 515(d)(1)(B)(ii) of the Federal Food, Drug, and Cosmetic Act (the act). FDA has determined that this restriction on sale and distribution is necessary to provide reasonable assurance of the safety and effectiveness of the device. Your device is therefore a restricted device subject to the requirements in sections 502(q) and (r) of the act, in addition to the many other FDA requirements governing the manufacture, distribution, and marketing of devices.

Expiration dating for this device has been established and approved at 11 years. This is to advise you that the protocol you used to establish this expiration dating is considered an approved protocol for the purpose of extending the expiration dating as provided by 21 CFR 814.39(a)(7).

Continued approval of this PMA is contingent upon the submission of periodic reports, required under 21 CFR 814.84, at intervals of one year (unless otherwise specified) from the date of approval of the original PMA. Two copies of this report, identified as "Annual Report" (please

use this title even if the specified interval is more frequent than one year) and bearing the applicable PMA reference number, should be submitted to the address below. The Annual Report should indicate the beginning and ending date of the period covered by the report and should include the information required by 21 CFR 814.84.

In addition to the above, and in order to provide continued reasonable assurance of the safety and effectiveness of the device, the Annual Report must include, separately for each model number (if applicable), the number of devices sold and distributed during the reporting period, including those distributed to distributors. The distribution data will serve as a denominator and provide necessary context for FDA to ascertain the frequency and prevalence of adverse events, as FDA evaluates the continued safety and effectiveness of the device.

In addition to the Annual Report requirements, you must provide the following data in a separate post-approval study (PAS) report. As a condition of approval, you have agreed to conduct the following post-approval studies:

1. *Long-Term Follow-up of IDE COC36 patients:* You have agreed (e-mail dated February 20, 2013) to perform a single arm, multi-center (i.e., 5 IDE sites), prospective follow-up post-approval study of 80 patients implanted with the 36mm Ceramax® Ceramic-on-Ceramic Acetabular Cup Prosthesis System. These subjects will be followed out to 10 years. A minimum of 80% of enrolled subjects will be confirmed to either have a surviving implant or to have had a revision at a minimum of 10 years post-operatively via clinical evaluation or telephone interview. The following information will be obtained at each post-op clinical visit: a Harris Hip evaluation, radiographic evaluation, subject evaluation and adverse event information. You have also agreed to provide retrieval analysis for the explants made available because of the revision or removal surgeries or patient death. Device survivorship will be estimated with a Kaplan-Meier survivorship analysis at each year and at 5 years post-operatively.
   Summary statistics will be provided for Harris Hip scores and change from baseline, overall and stratified by obesity. Cumulative rates for adverse events by adverse event, as well as by category (intraoperative, postoperative-operative site, systemic, and overall) will be provided.

2. *Short to Mid-Term Follow-up of New COC36 Patients:* You have agreed (email dated February 20, 2013) to perform a single arm, multi-center (i.e., 5 IDE sites and 5 new sites), prospective follow-up post-approval study enrolling 170 new patients implanted with the 36mm Ceramax® Ceramic-on-Ceramic Acetabular Cup Prosthesis System. These subjects will be followed for a pre-op clinic visit at the time of consent, and then at 6 weeks, 1 year, 2 years, 3 years, 4 years, and 5 years. A minimum of 80% of enrolled subjects will be confirmed, either via clinical evaluation or telephone interview, to either have a surviving implant or have a revision after 5 years post-operatively. The following information will be obtained at each post-op clinical visit: a Harris Hip evaluation, radiographic evaluation, subject evaluation and adverse event information. You have also agreed to provide retrieval analysis for the explants made available because of the revision or removal surgeries or patient death. Device survivorship will be estimated with a Kaplan-Meier survivorship

analysis at each year and at 5 years post-operatively. Summary statistics will be provided for Harris Hip scores and change from baseline, overall and stratified by obesity. Cumulative rates for adverse events by adverse event, as well as by category (intraoperative, postoperative-operative site, systemic, and overall) will be provided.

3. *COC36 PAS: UK & Australian National Joint Registry Data*: You have agreed to gather retrospectively and prospectively, short, medium and long-term information regarding the performance and safety of the commercially available 36mm Ceramax® Ceramic on Ceramic Total Hip System from series of subjects in the UK National Join Registry (UK NJR) and Australia Orthopaedic Association NJRR. The study will provide data 10 years post-op follow-up for all eligible patients. You have agreed to provide compiled information on the device survivorship, reasons for revisions and revision data. The primary endpoint in this study is device survivorship, which will be estimated at 10 years post-operatively utilizing Kaplan Meier survival methodology.

   You have also agreed that progress reports will differentiate subjects who have received the approved US system (approved stem, head, liner, and shell combination), and patients who have component(s) which are not approved in the U.S. Sub-group analyses will be conducted which present survivorship analyses overall, and by sub-group cohort.

Please be advised that the results from these studies should be included in the labeling as these data become available. Any updated labeling must be submitted to FDA in the form of a PMA Supplement.

Be advised that the failure to conduct any such study in compliance with the good clinical laboratory practices in 21 CFR part 58 (if a non-clinical study subject to part 58) or the institutional review board regulations in 21 CFR part 56 and the informed consent regulations in 21 CFR part 50 (if a clinical study involving human subjects) may be grounds for FDA withdrawal of approval of the PMA.

FDA would like to remind you that you are asked to submit separate PAS Progress Reports every six months during the first two years of the study and annually thereafter. The reports should clearly be identified as Post-Approval Study Report. Two copies for each study, identified as "PMA Post-Approval Study Report" and bearing the applicable PMA reference number, should be submitted to the address below. For more information on post-approval studies, see the FDA guidance document entitled, "Procedures for Handling Post-Approval Studies Imposed by PMA Order" (www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm070974.htm#2).

Before making any change affecting the safety or effectiveness of the device, you must submit a PMA supplement or an alternate submission (30-day notice) in accordance with 21 CFR 814.39. All PMA supplements and alternate submissions (30-day notice) must comply with the

applicable requirements in 21 CFR 814.39. For more information, please refer to the FDA guidance document entitled, "Modifications to Devices Subject to Premarket Approval (PMA) - The PMA Supplement Decision-Making Process" (www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm089274.htm).

You are reminded that many FDA requirements govern the manufacture, distribution, and marketing of devices. For example, in accordance with the Medical Device Reporting (MDR) regulation, 21 CFR 803.50 and 21 CFR 803.52, you are required to report adverse events for this device. Manufacturers of medical devices, including in vitro diagnostic devices, are required to report to FDA no later than 30 calendar days after the day they receive or otherwise becomes aware of information, from any source, that reasonably suggests that one of their marketed devices:

1. May have caused or contributed to a death or serious injury; or

2. Has malfunctioned and such device or similar device marketed by the manufacturer would be likely to cause or contribute to a death or serious injury if the malfunction were to recur.

Additional information on MDR, including how, when, and where to report, is available at www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm.

In accordance with the recall requirements specified in 21 CFR 806.10, you are required to submit a written report to FDA of any correction or removal of this device initiated by you to: (1) reduce a risk to health posed by the device; or (2) remedy a violation of the act caused by the device which may present a risk to health, with certain exceptions specified in 21 CFR 806.10(a)(2). Additional information on recalls is available at www.fda.gov/Safety/Recalls/IndustryGuidance/default.htm.

CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading. CDRH will notify the public of its decision to approve your PMA by making available, among other information, a summary of the safety and effectiveness data upon which the approval is based. The information can be found on the FDA CDRH Internet HomePage located at www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/DeviceApprovalsandClearances/PMAApprovals/default.htm. Written requests for this information can also be made to the Food and Drug Administration, Dockets Management Branch, (HFA-305), 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852. The written request should include the PMA number or docket number. Within 30 days from the date that this information is placed on the Internet, any interested person may seek review of this decision by submitting a petition for review under section 515(g) of the act and requesting either a hearing or review by an independent advisory committee. FDA may, for good cause, extend this 30-day filing period.

Failure to comply with any post-approval requirement constitutes a ground for withdrawal of approval of a PMA. The introduction or delivery for introduction into interstate commerce of a device that is not in compliance with its conditions of approval is a violation of law.

You are reminded that, as soon as possible and before commercial distribution of your device, you must submit an amendment to this PMA submission with copies of all approved labeling in final printed form. Final printed labeling that is identical to the labeling approved in draft form will not routinely be reviewed by FDA staff when accompanied by a cover letter stating that the final printed labeling is identical to the labeling approved in draft form. If the final printed labeling is not identical, any changes from the final draft labeling should be highlighted and explained in the amendment.

All required documents should be submitted in six copies, unless otherwise specified, to the address below and should reference the above PMA number to facilitate processing.

U.S. Food and Drug Administration
Center for Devices and Radiological Health
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If you have any questions concerning this approval order, please contact Mr. Dave McGurl at 301-796-6410.

Sincerely yours,

Mark N. Melkerson -S

Mark N. Melkerson
Director
Division of Orthopedic Devices
Office of Device Evaluation
Center for Devices and
Radiological Health