

## ArevaEPRDCPEm Resource

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**From:** Pederson Ronda M (AREVA NP INC) [Ronda.Pederson@areva.com]  
**Sent:** Monday, July 13, 2009 6:06 PM  
**To:** Tesfaye, Getachew  
**Cc:** BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); NOXON David B (AREVA NP INC)  
**Subject:** Response to U.S. EPR Design Certification Application RAI No. 234, FSARCh. 19 (Part 3 of 4)  
**Attachments:** RAI 234 Response US EPR DC (Part 3 of 4).pdf

[Response file, "RAI 234 Response US EPR DC \(Part 3 of 4\).pdf" is attached.](#)

*Ronda Pederson*

[ronda.pederson@areva.com](mailto:ronda.pederson@areva.com)

Licensing Manager, U.S. EPR Design Certification

**AREVA NP Inc.**

An AREVA and Siemens company

3315 Old Forest Road  
Lynchburg, VA 24506-0935  
Phone: 434-832-3694  
Cell: 434-841-8788

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**To:** 'Tesfaye, Getachew'  
**Cc:** BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); NOXON David B (AREVA NP INC)  
**Subject:** Response to U.S. EPR Design Certification Application RAI No. 234, FSARCh. 19 (Part 2 of 4)

[Response file, "RAI 234 Response US EPR DC \(Part 2 of 4\).pdf" is attached.](#)

*Ronda Pederson*

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**From:** Pederson Ronda M (AREVA NP INC)  
**Sent:** Monday, July 13, 2009 6:04 PM  
**To:** 'Tesfaye, Getachew'  
**Cc:** BENNETT Kathy A (OFR) (AREVA NP INC); DELANO Karen V (AREVA NP INC); NOXON David B (AREVA NP INC)  
**Subject:** Response to U.S. EPR Design Certification Application RAI No. 234, FSARCh. 19 (Part 1 of 4)

Getachew,

Attached please find AREVA NP Inc.'s response to the subject request for additional information (RAI). The response document, "RAI 234 Response US EPR DC.pdf" provides technically correct and complete responses to one of the four questions. Due to E-mail size restrictions, this file is provided in 4 consecutive parts.

Appended to this file are affected pages of the U.S. EPR Final Safety Analysis Report in redline-strikeout format which support the response to RAI 234 Question 19-307.

The following table indicates the respective pages in the response document, "RAI 234 Response US EPR DC.pdf," that contain AREVA NP's response to the subject questions.

Question #	Start Page	End Page
RAI 234 — 19-304	2	2
RAI 234 — 19-305	3	3
RAI 234 — 19-306	4	4
RAI 234 — 19-307	5	51

A complete answer is not provided for three of the four questions. The schedule for a technically correct and complete response to these questions is provided below.

Question #	Response Date
RAI 234 — 19-304	October 30, 2009
RAI 234 — 19-305	October 30, 2009
RAI 234 — 19-306	October 30, 2009

Sincerely,

*Ronda Pederson*

[ronda.pederson@areva.com](mailto:ronda.pederson@areva.com)

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**From:** Tesfaye, Getachew [mailto:Getachew.Tesfaye@nrc.gov]

**Sent:** Friday, June 12, 2009 10:23 AM

**To:** ZZ-DL-A-USEPR-DL

**Cc:** Ma, John; Xu, Jim; Clark, Theresa; Phan, Hanh; Fuller, Edward; Mrowca, Lynn; Chowdhury, Prosanta; Rycyna, John; Colaccino, Joseph; ArevaEPRDCPEm Resource

**Subject:** U.S. EPR Design Certification Application RAI No. 234 (2861), FSARCh. 19

Attached please find the subject requests for additional information (RAI). A draft of the RAI was provided to you on May 19, 2009, and discussed with your staff on June 11, 2009. Draft RAI Question 19-305 was modified as a result of that discussion. The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs. For any RAIs that

cannot be answered within 30 days, it is expected that a date for receipt of this information will be provided to the staff within the 30 day period so that the staff can assess how this information will impact the published schedule.

Thanks,  
Getachew Tesfaye  
Sr. Project Manager  
NRO/DNRL/NARP  
(301) 415-3361

**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 653

**Mail Envelope Properties** (5CEC4184E98FFE49A383961FAD402D310110EF4E)

**Subject:** Response to U.S. EPR Design Certification Application RAI No. 234, FSARCh.  
19 (Part 3 of 4)  
**Sent Date:** 7/13/2009 6:06:25 PM  
**Received Date:** 7/13/2009 6:06:34 PM  
**From:** Pederson Ronda M (AREVA NP INC)

**Created By:** Ronda.Pederson@areva.com

**Recipients:**

"BENNETT Kathy A (OFR) (AREVA NP INC)" <Kathy.Bennett@areva.com>

Tracking Status: None

"DELANO Karen V (AREVA NP INC)" <Karen.Delano@areva.com>

Tracking Status: None

"NOXON David B (AREVA NP INC)" <David.Noxon@areva.com>

Tracking Status: None

"Tesfaye, Getachew" <Getachew.Tesfaye@nrc.gov>

Tracking Status: None

**Post Office:** AUSLYNCMX02.adom.ad.corp

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	4027	7/13/2009 6:06:34 PM
RAI 234 Response US EPR DC (Part 3 of 4).pdf		5461208

**Options**

**Priority:** Standard

**Return Notification:** No

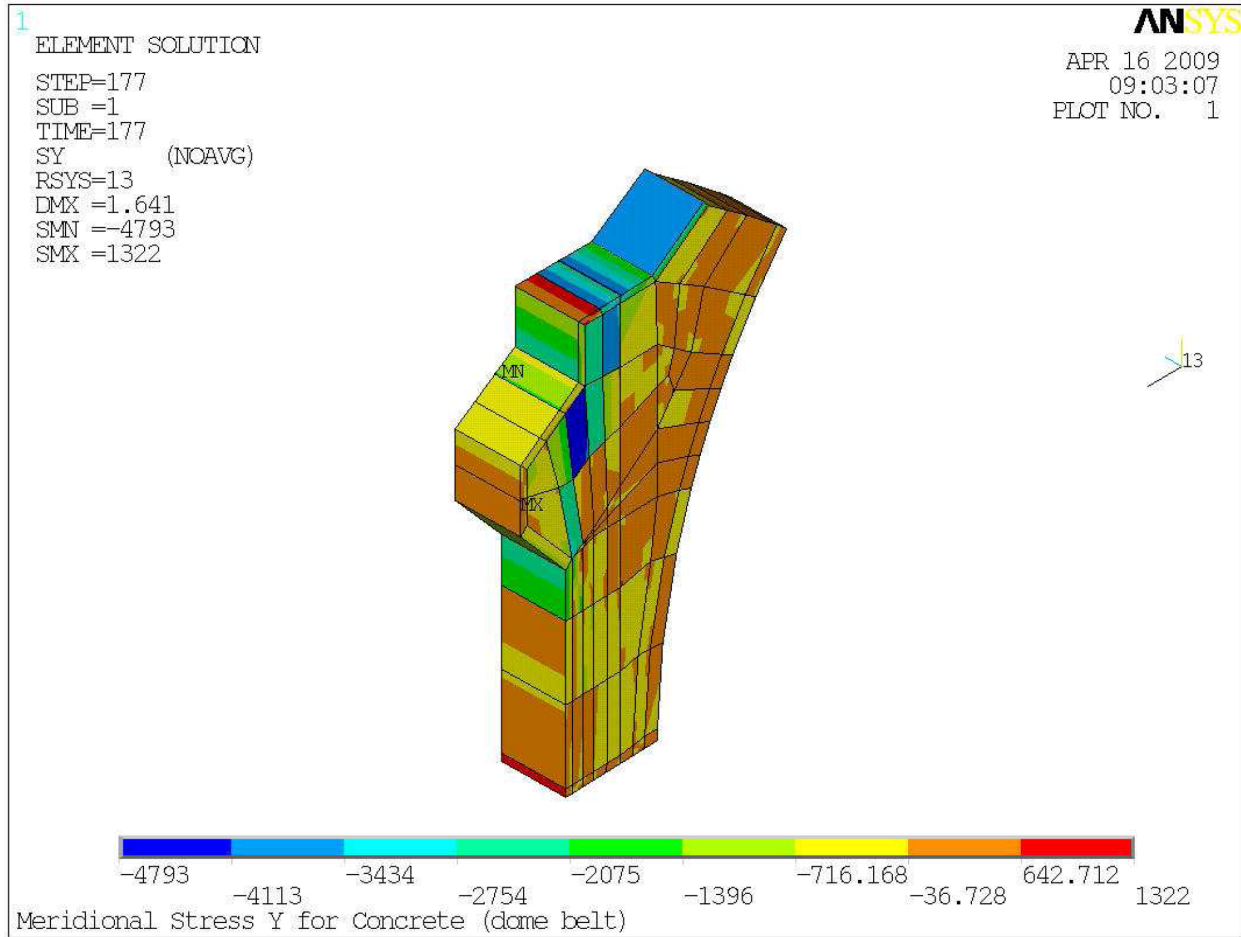
**Reply Requested:** No

**Sensitivity:** Normal

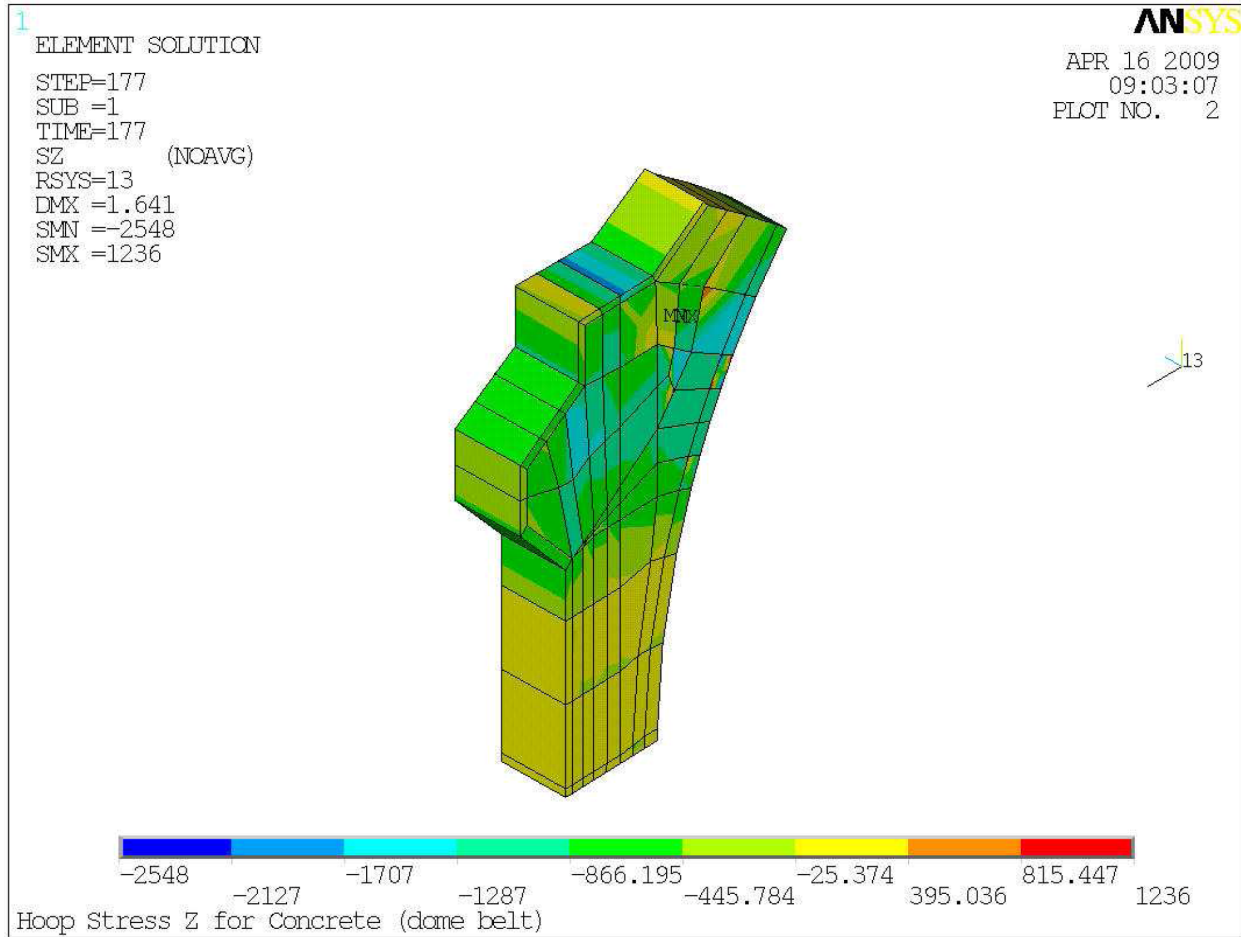
**Expiration Date:**

**Recipients Received:**

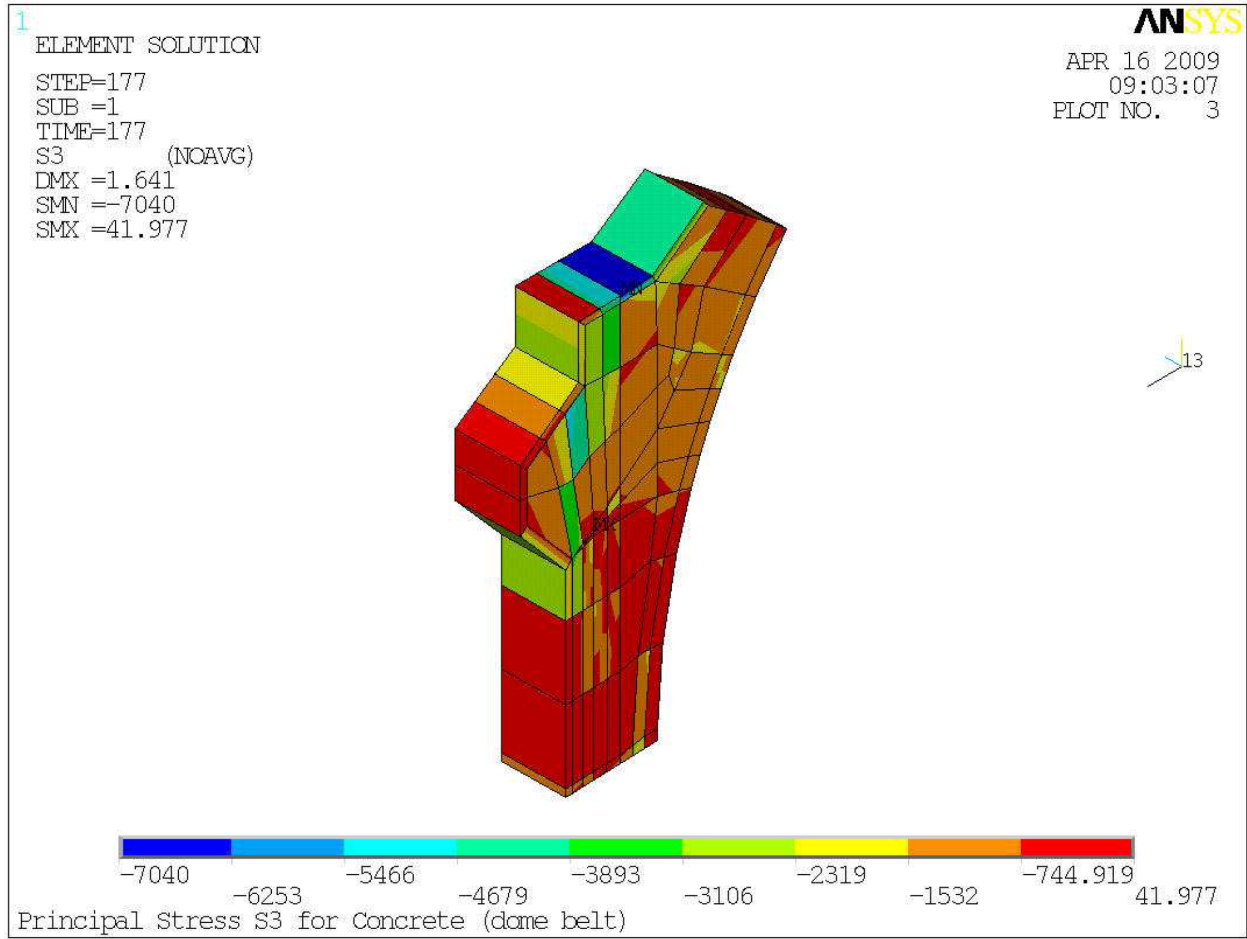
**Figure 19-307-20—Concrete Meridional Stress (Sy) in Dome Belt**



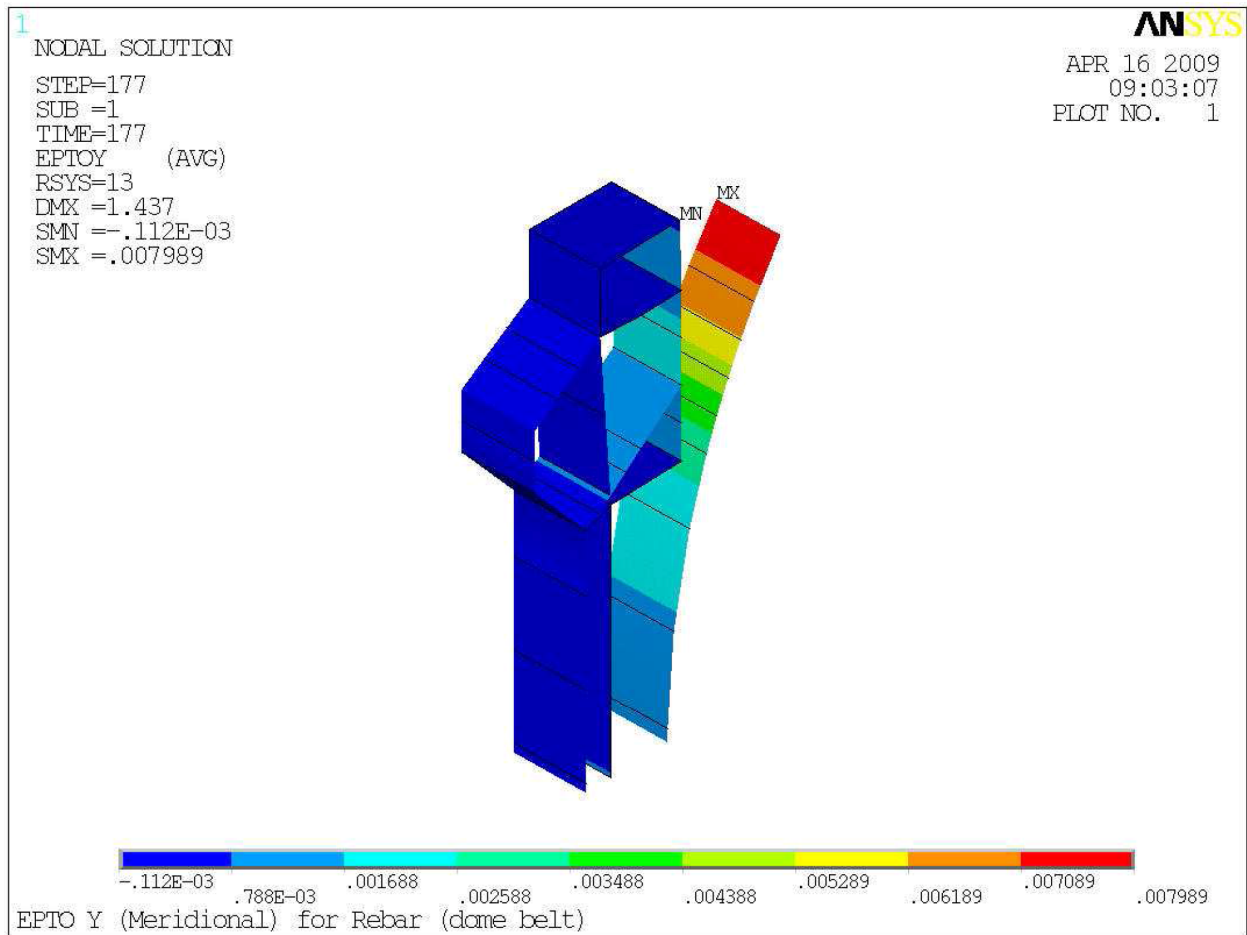
**Figure 19-307-21—Concrete Hoop Stress (Sz) in Dome Belt**



**Figure 19-307-22—Concrete Principal Stress (S3) in Dome Belt**

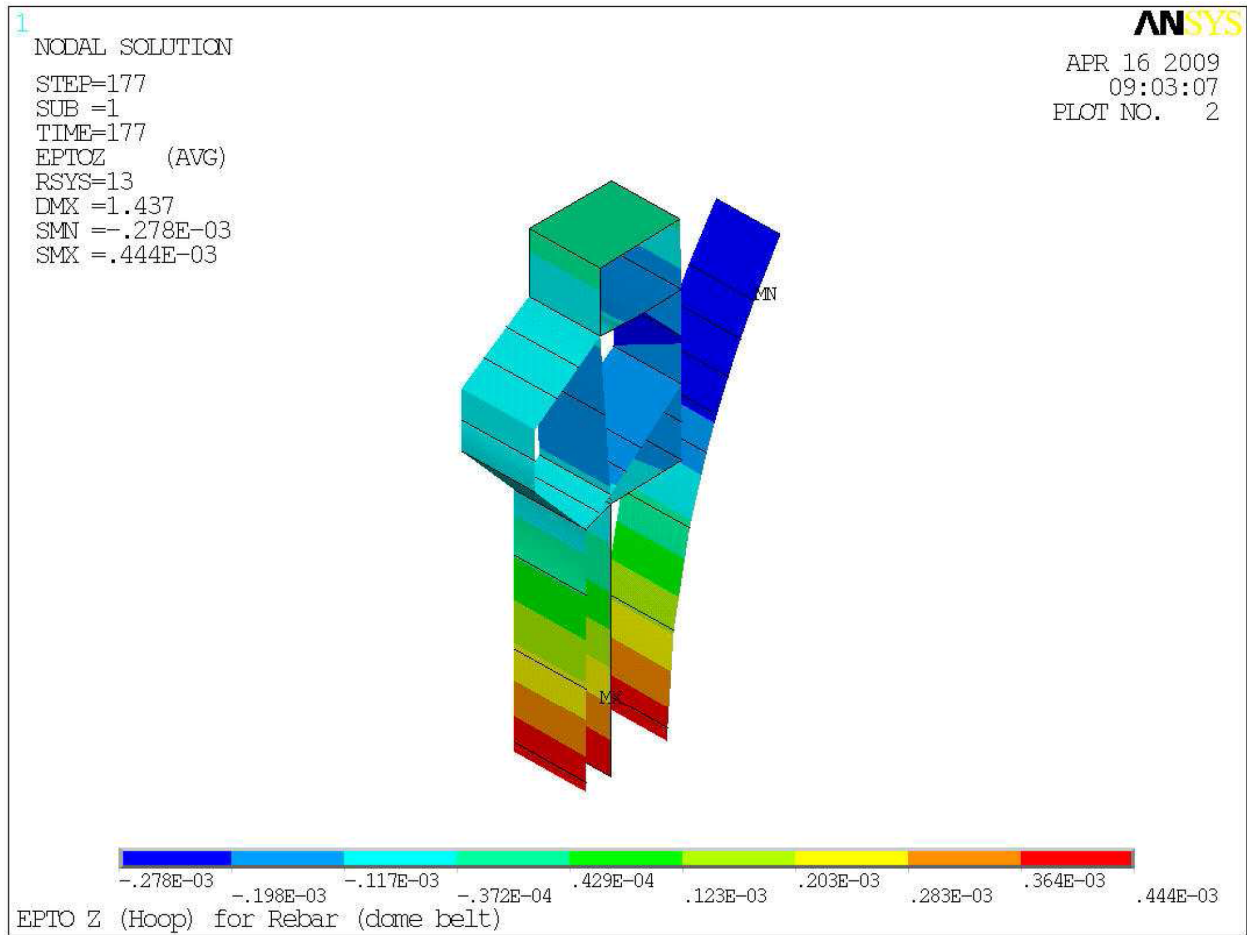


**Figure 19-307-23—Rebar Meridional Strain ( $\epsilon_y$ ) in Dome Belt**

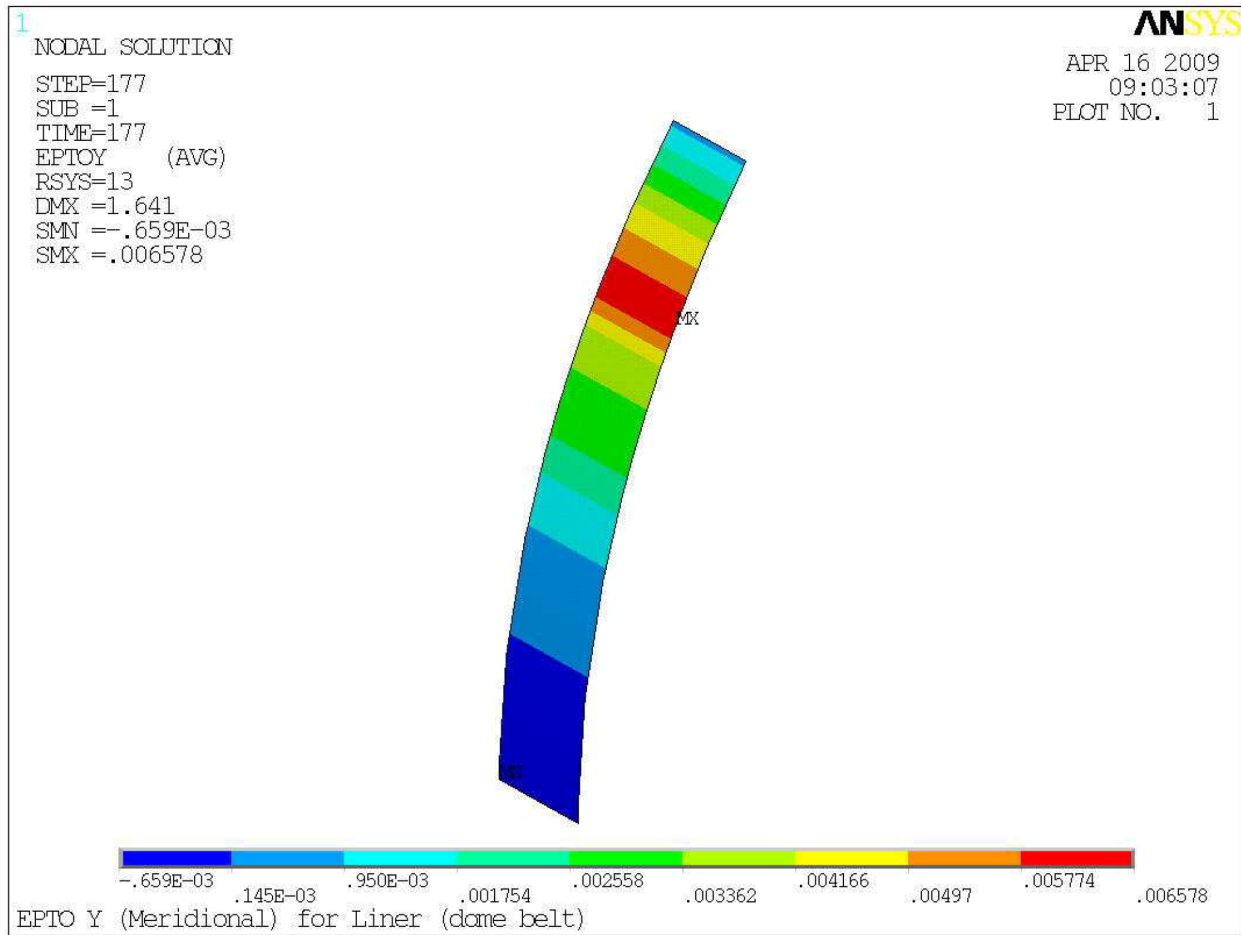




**Figure 19-307-24—Rebar Hoop Strain ( $\epsilon_z$ ) in Dome Belt**



**Figure 19-307-25—Liner Plate Meridional Strain ( $\epsilon_y$ ) in Dome Belt**



**Figure 19-307-26—Liner Plate Hoop Strain ( $\epsilon_z$ ) in Dome Belt**

