

## ArevaEPRDCPEm Resource

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**From:** WILLIFORD Dennis (AREVA) [Dennis.Williford@areva.com]  
**Sent:** Friday, May 03, 2013 2:32 PM  
**To:** Snyder, Amy  
**Cc:** Gleaves, Bill; HOLM Jerald (EXTERNAL AREVA)  
**Subject:** PUBLIC Version of the AREVA NP ACRS GSI-191 Presentation on May 7, 2013 - Part 4 of 6  
**Attachments:** ACRS GSI-191 May 2013 NonProprietary\_Part4.pdf

Amy,

Attached is the Public (Non-Proprietary) version of the AREVA NP ACRS GSI-191 Presentation for next week (May 7<sup>th</sup>) - Part 4 of 6.

Sincerely,

***Dennis Williford, P.E.***  
***U.S. EPR Design Certification Licensing Manager***  
***AREVA NP Inc.***  
7207 IBM Drive, Mail Code CLT 2B  
Charlotte, NC 28262  
Phone: 704-805-2223  
Email: [Dennis.Williford@areva.com](mailto:Dennis.Williford@areva.com)

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**From:** WILLIFORD Dennis (RS/NB)  
**Sent:** Friday, May 03, 2013 2:30 PM  
**To:** [Amy.Snyder@nrc.gov](mailto:Amy.Snyder@nrc.gov)  
**Cc:** [bill.gleaves@nrc.gov](mailto:bill.gleaves@nrc.gov); HOLM Jerald (External RS/NB)  
**Subject:** PUBLIC Version of the AREVA NP ACRS GSI-191 Presentation on May 7, 2013 - Part 3 of 6

Amy,

Attached is the Public (Non-Proprietary) version of the AREVA NP ACRS GSI-191 Presentation for next week (May 7<sup>th</sup>) - Part 3 of 6.

Sincerely,

***Dennis Williford, P.E.***  
***U.S. EPR Design Certification Licensing Manager***  
***AREVA NP Inc.***  
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Charlotte, NC 28262  
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**From:** WILLIFORD Dennis (RS/NB)  
**Sent:** Friday, May 03, 2013 2:27 PM  
**To:** [Amy.Snyder@nrc.gov](mailto:Amy.Snyder@nrc.gov)  
**Cc:** [bill.gleaves@nrc.gov](mailto:bill.gleaves@nrc.gov); HOLM Jerald (External RS/NB)  
**Subject:** PUBLIC Version of the AREVA NP ACRS GSI-191 Presentation on May 7, 2013 - Part 2 of 6

Amy,

Attached is the Public (Non-Proprietary) version of the AREVA NP ACRS GSI-191 Presentation for next week (May 7<sup>th</sup>) - Part 2 of 6.

Sincerely,

**Dennis Williford, P.E.**  
**U.S. EPR Design Certification Licensing Manager**  
**AREVA NP Inc.**

7207 IBM Drive, Mail Code CLT 2B  
Charlotte, NC 28262  
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Email: [Dennis.Williford@areva.com](mailto:Dennis.Williford@areva.com)

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**From:** WILLIFORD Dennis (RS/NB)  
**Sent:** Friday, May 03, 2013 2:21 PM  
**To:** [Amy.Snyder@nrc.gov](mailto:Amy.Snyder@nrc.gov)  
**Cc:** [bill.gleaves@nrc.gov](mailto:bill.gleaves@nrc.gov); HOLM Jerald (External RS/NB)  
**Subject:** PUBLIC Version of the AREVA NP ACRS GSI-191 Presentation on May 7, 2013 - Part 1 of 6

Amy,

Attached is the Public (Non-Proprietary) version of the AREVA NP ACRS GSI-191 Presentation for next week (May 7<sup>th</sup>) - Part 1 of 6. The remaining parts will be provided in subsequent e-mails.

Sincerely,

**Dennis Williford, P.E.**  
**U.S. EPR Design Certification Licensing Manager**  
**AREVA NP Inc.**

7207 IBM Drive, Mail Code CLT 2B  
Charlotte, NC 28262  
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**From:** WILLIFORD Dennis (RS/NB)  
**Sent:** Friday, May 03, 2013 1:18 PM  
**To:** [Amy.Snyder@nrc.gov](mailto:Amy.Snyder@nrc.gov); [kathy.weaver@nrc.gov](mailto:kathy.weaver@nrc.gov)  
**Cc:** [bill.gleaves@nrc.gov](mailto:bill.gleaves@nrc.gov); HOLM Jerald (External RS/NB)  
**Subject:** PROPRIETARY Version of the AREVA NP ACRS GSI-191 Presentation on May 7, 2013 - Part 1 of 6

Amy and Kathy,

Attached is the Proprietary version of the AREVA NP ACRS GSI-191 Presentation for next week (May 7<sup>th</sup>) - Part 1 of 6. The remaining parts will be provided in subsequent e-mails, along with E-mails to provide the Public version. Because AREVA NP believes some of the material is PROPRIETARY, an affidavit to withhold from public disclosure in accordance with 10 CFR 2.390 is provided. This is the same affidavit used for the March ACRS meeting – which was subsequently rescheduled due to May 7<sup>th</sup> - due to weather conditions.

Sincerely,

**Dennis Williford, P.E.**  
**U.S. EPR Design Certification Licensing Manager**  
**AREVA NP Inc.**

7207 IBM Drive, Mail Code CLT 2B  
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**Hearing Identifier:** AREVA\_EPR\_DC\_RAIs  
**Email Number:** 4415

**Mail Envelope Properties** (554210743EFE354B8D5741BEB695E656152A4F)

**Subject:** PUBLIC Version of the AREVA NP ACRS GSI-191 Presentation on May 7, 2013  
- Part 4 of 6  
**Sent Date:** 5/3/2013 2:32:20 PM  
**Received Date:** 5/3/2013 2:33:55 PM  
**From:** WILLIFORD Dennis (AREVA)

**Created By:** Dennis.Williford@areva.com

**Recipients:**

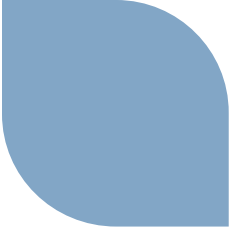
"Gleaves, Bill" <Bill.Gleaves@nrc.gov>  
Tracking Status: None  
"HOLM Jerald (EXTERNAL AREVA)" <Jerald.Holm.ext@areva.com>  
Tracking Status: None  
"Snyder, Amy" <Amy.Snyder@nrc.gov>  
Tracking Status: None

**Post Office:** FUSLYNCMX03.fdom.ad.corp

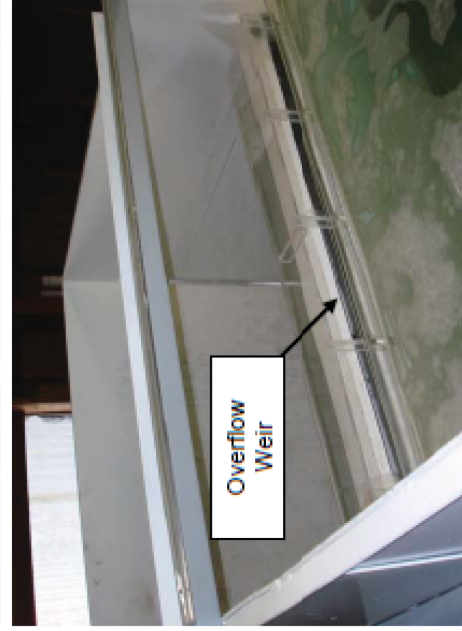
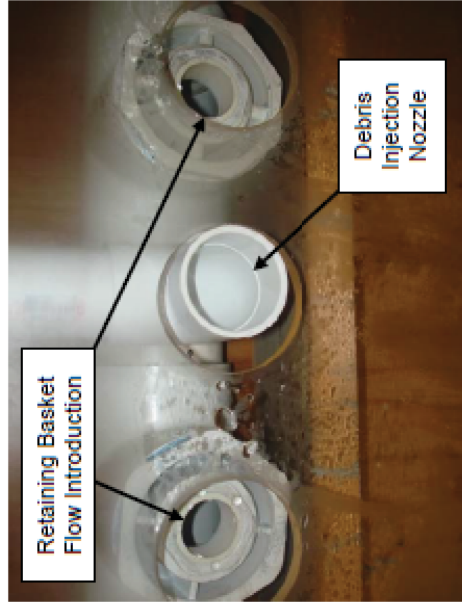
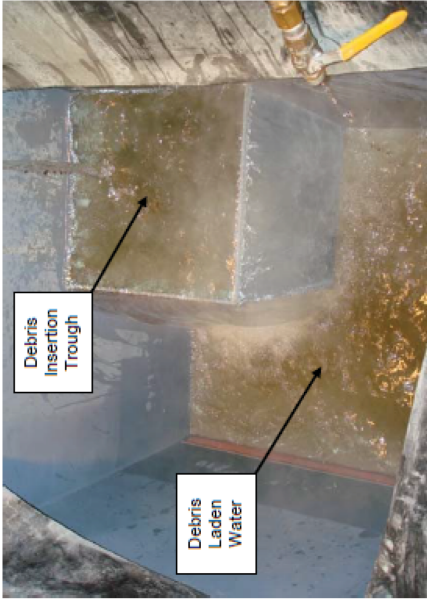
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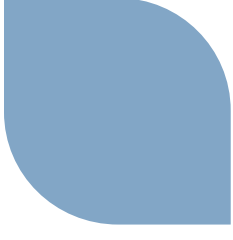
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**Return Notification:** No  
**Reply Requested:** No  
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**Recipients Received:**



# Test Facility



# Debris



- ▶ **100% particulate and fiber debris transport to the basket**
- ▶ **Maintained debris per strainer filtering surface area**
- ▶ **Introduction sequence in accordance with NRC approved methodologies**
- ▶ **Particulate Debris**
  - ◆ **Wetted (Except Dirt and Dust)**
- ▶ **Latent Fiber**
  - ◆ **Baked NUKON® Fiber processed through shredder**
- ▶ **Coating chips**
- ▶ **Chemical Precipitants**
  - ◆ **Calcium Phosphate**
  - ◆ **Aluminum Oxyhydroxide**

# Results

## Head Loss Summary (Jan 2011)

Test #	Retaining Basket	Strainer	Strainer increase in dP (ft of water)	Basket water level rise (ft)
Test 1D	0.08" M	0.08" M	0	2.4
Test 1E	0.08" M	0.08" M	0	2.4

## Bypass Test Summary (Jan 2011)

Test #	Retaining Basket	Strainer	First 25% of debris bypass	Total Bypass
Test 2E	0.08" M	0.08" M	62.1%	69.6%
Test 2F	0.08" M	0.08" M	67.0%	68.7%

# Head Loss Test Results

- ▶ **Test 1D / 1E**
- ▶ **Debris addition did not increase the measured strainer differential pressure**

