

From: Mark Kirk *RES*
To: Jon Hopkins; Steven Long *NRR*
Date: 8/26/02 2:32PM
Subject: RE: NRC Request re: Cavity Mold

Steve -

Thanks for the info ... and your warning about scaling of other than the exposed cladding area are duly noted.

Jon -

Can you provide the reference?

Thanks

mark

✓ >>> Steven Long 08/26/02 02:29PM >>>
Jon,

NRR

If the info in the e-mail is in a Framatome report, I don't have that report nor a reference to it.

release

Mark,

From viewing the cavity and the mold that is the subject of the photograph, I am sure that your interpretations about what-is-what are correct. Since the photo seems to be carefully controlled to have the cast of the exposed surface parallel to the film plane, i expect the area measurement is reasonably close to the righ tvalue. However, I'm not so sure about the rest of the things one might scale off this photo or others of the cavity.

Steve

✓ >>> Jon Hopkins 08/26/02 02:03PM >>>
The picture is from a Framatome report. Steve Long can tell you the reference. I'm new to the D-B project so I do not have the history and knowledge to vouch for the correctness of any lines and explanation. Jon

NRR

release

✓ >>> Mark Kirk 08/26/02 12:37PM >>>
Jon -

RES

I recently received the attached photo (via Steve Long) of the casting that was made from the davis besse cavity.

Two things:

1. Could you please open the attached file and make sure that i have interpreted the photo correctly (see the lines i have drawn on the photo and the text that is in the box just below the photo. I want to compare measurements that we can digitize off of this with the cavity our contractors have modelled in their stress analysis.

2. Is there a reference for this photo? If so i would appreciate receiving it.

L-11

From: Jon Hopkins *NRL*
To: Kirk, Mark *RES*
Date: 8/26/02 2:03PM
Subject: RE: NRC Request re: Cavity Mold

✓ The picture is from a Framatome report. Steve Long can tell you the reference. I'm new to the D-B project so I do not have the history and knowledge to vouch for the correctness of any lines and explanation. Jon *Steve Long*

✓ >>> Mark Kirk 08/26/02 12:37PM >>>
Jon - *RES*

I recently received the attached photo (via Steve Long) of the casting that was made from the Davis Besse cavity.

Two things:

1. Could you please open the attached file and make sure that I have interpreted the photo correctly (see the lines I have drawn on the photo and the text that is in the box just below the photo. I want to compare measurements that we can digitize off of this with the cavity our contractors have modelled in their stress analysis.
2. Is there a reference for this photo? If so I would appreciate receiving it.

Many thanks

Mark

✓ >>> <mkleisure@firstenergycorp.com> 08/23/02 02:01PM >>>
Jon- *FIRST ENERGY*

Attached is an email responding to a Steve Long request forwarded to Dale Wuokko via Stephen Sands on 8/21. Please forward this information to Mr. Long. I have also included (below) the powerpoint slide and the word doc referred to in the attached email.
(See attached file: BWXT.ppt)(See attached file: Area of exposed cladding.doc) *Steve Long*

Mike Leisure
Davis-Besse Licensing
(419)321-7168

----- Forwarded by Michael K. Leisure/TE/FirstEnergy on 08/23/2002 01:51 PM

XU Hongqing
<Hongqing.XU@framatom To: "'mkleisure@firstenergycorp.com"'
✓ <mkleisure@firstenergycorp.com>
e-anp.com> cc: "'jwhyres@mcdermott.com"' <jwhyres@mcdermott.com>
Subject: RE: NRC Request re: Cavity Mold
08/22/2002 02:16 PM

Mike

Based on the photos (particular slide #12) in the 6/17/02 presentation at BWXT and photos for the exposed cladding area measurement (word doc in my 8/7/02 email to you), the shortest distance from the nozzle #3 O.D. to the extremity of the cavity (i.e. the farthest point of the nose) is estimated to be 5.9+/- 0.2 inch.

Mike

Hongqing Xu

-----Original Message-----

From: mkleisure@firstenergycorp.com

[mailto:mkleisure@firstenergycorp.com]

Sent: Thursday, August 22, 2002 11:48 AM

To: Hongqing.Xu@framatome-anp.com

Cc: mmclaughlin@firstenergycorp.com; drwuokko@firstenergycorp.com

Subject: NRC Request re: Cavity Mold

✓ Hongqing-

I just faxed you a couple of pages regarding an NRC request on the maximum dimension from the nozzle to the nose of the cavity. Please call me when you've had a chance to review the fax.

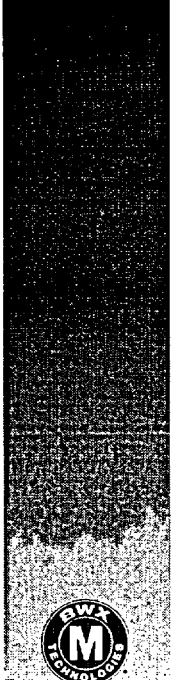
Mike

Thanks,
Mike Leisure
Davis-Besse Licensing
(419)321-7168

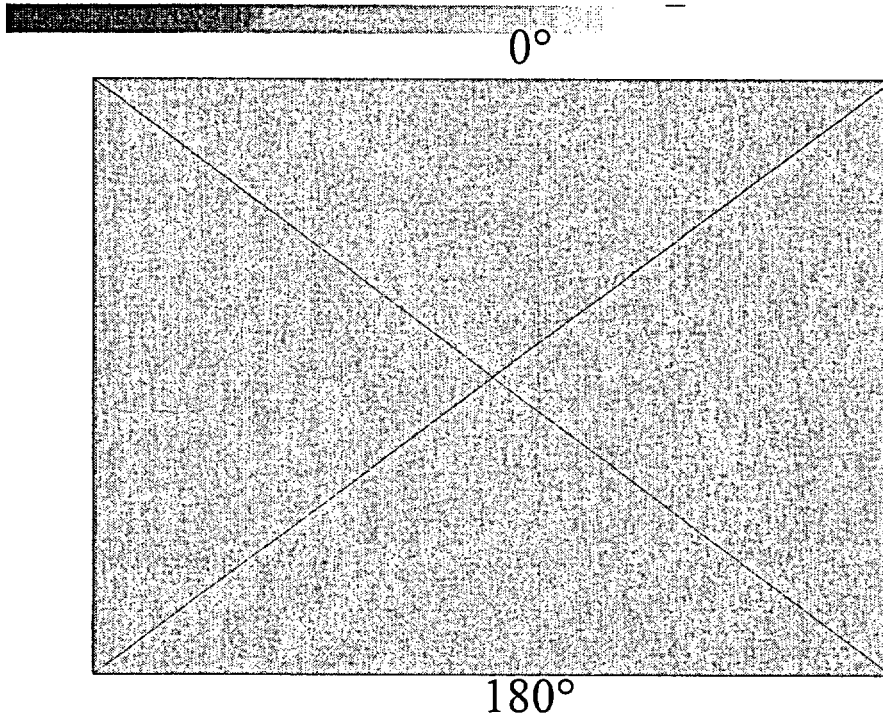
CC: Long, Steven

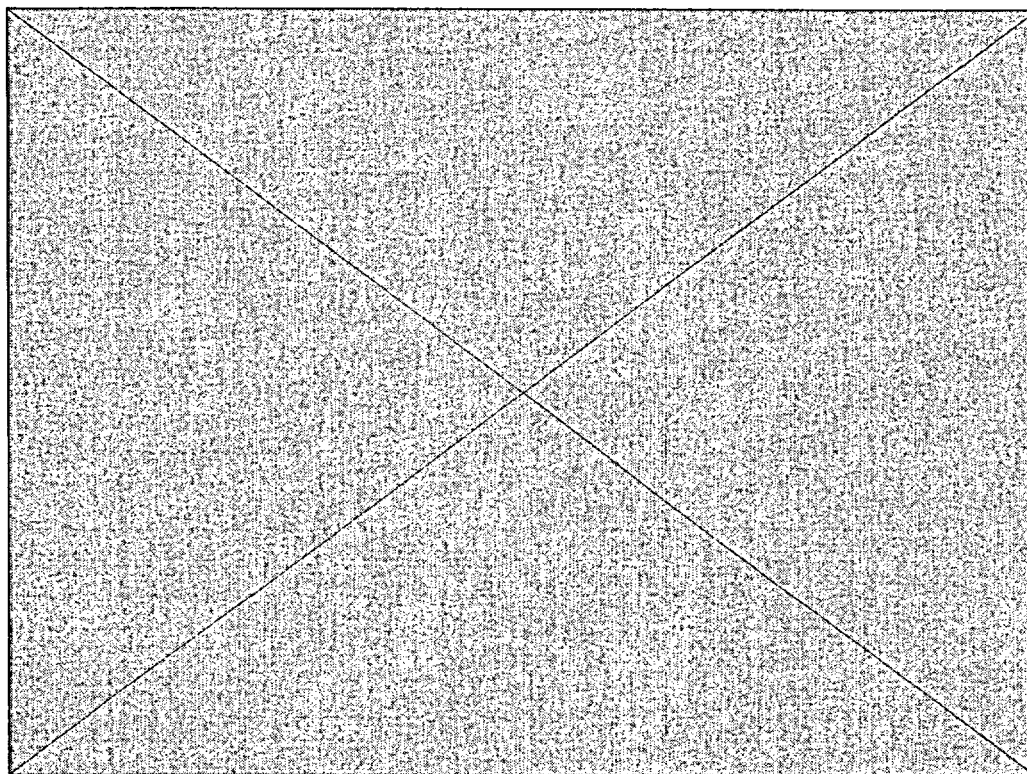
release

Top View – Damaged CRDM Opening



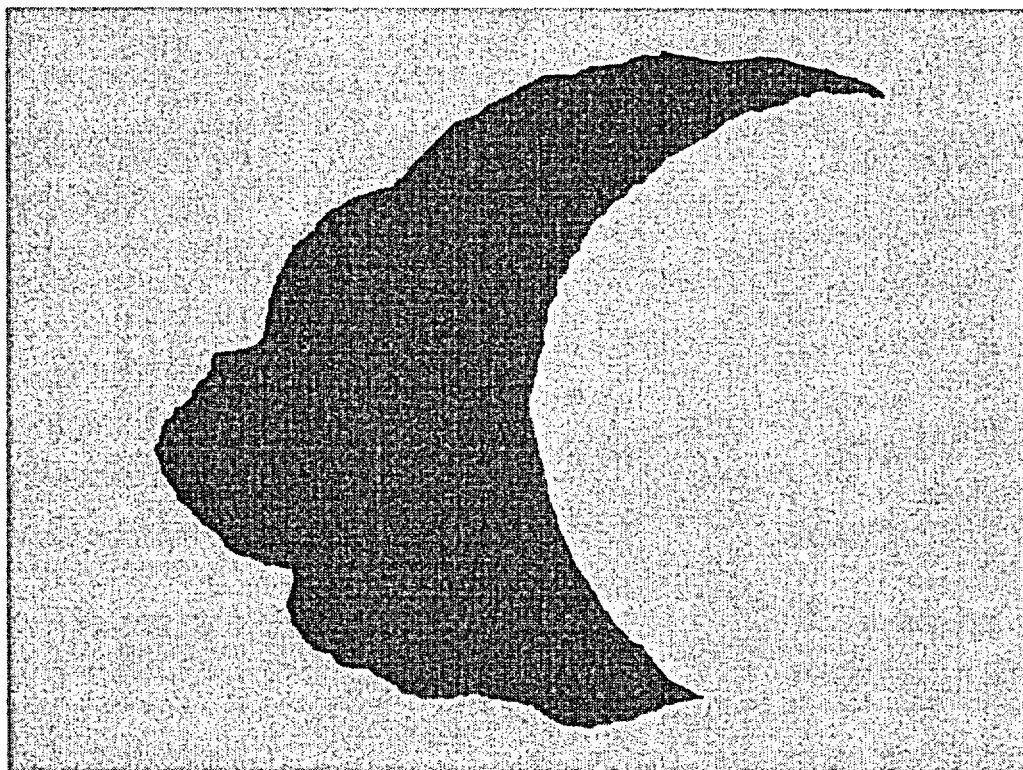
BWXT Services, Inc.





Magnification: $6''/3.82'' = 1.57X$

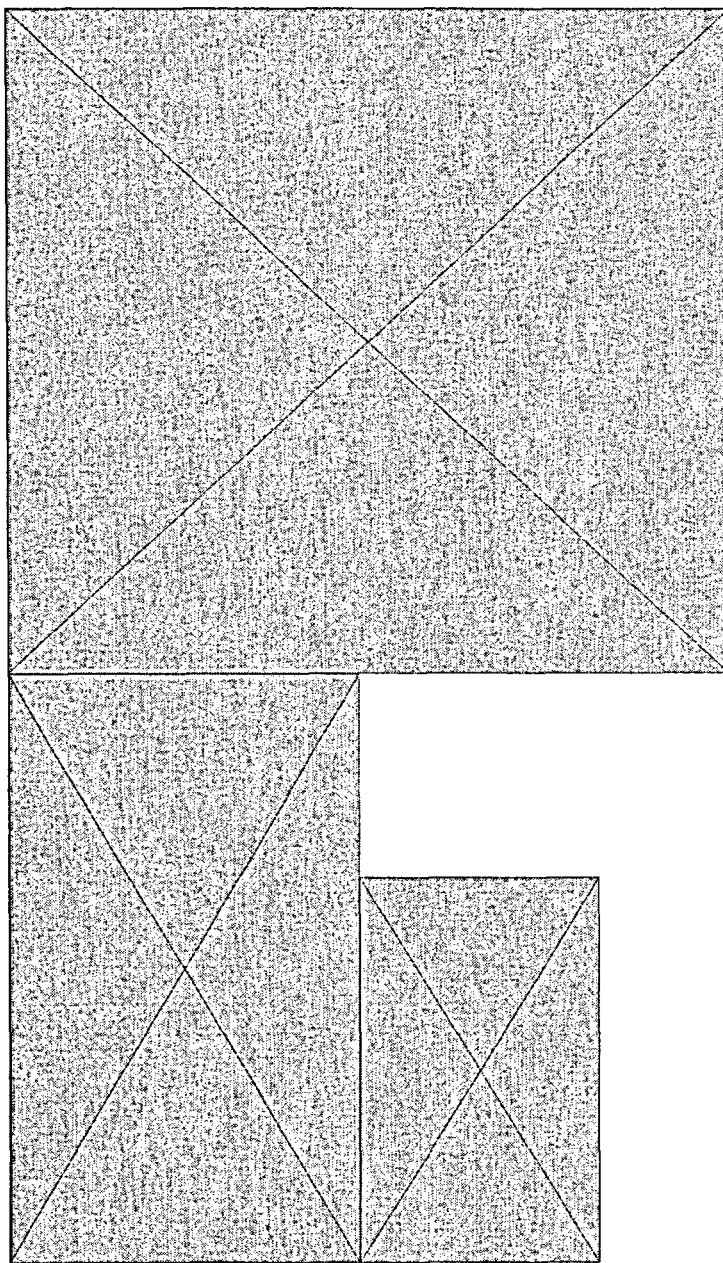
Area of photo: $(6'')(1.57) \times (4.5'')(1.57X) = 66.55 \text{ in}^2$

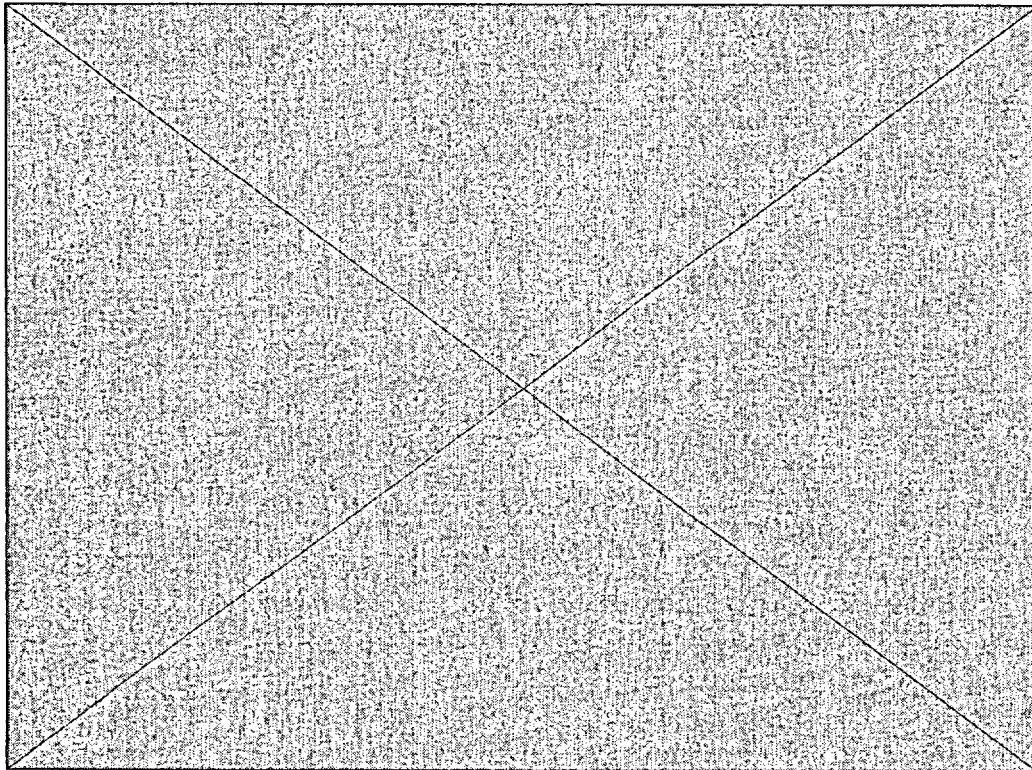


Area fraction of exposed cladding: 25.95% (by image analysis software)

Area of exposed cladding: $(66.55 \text{ in}^2)(.2595) = 17.27 \text{ in}^2$

rebar



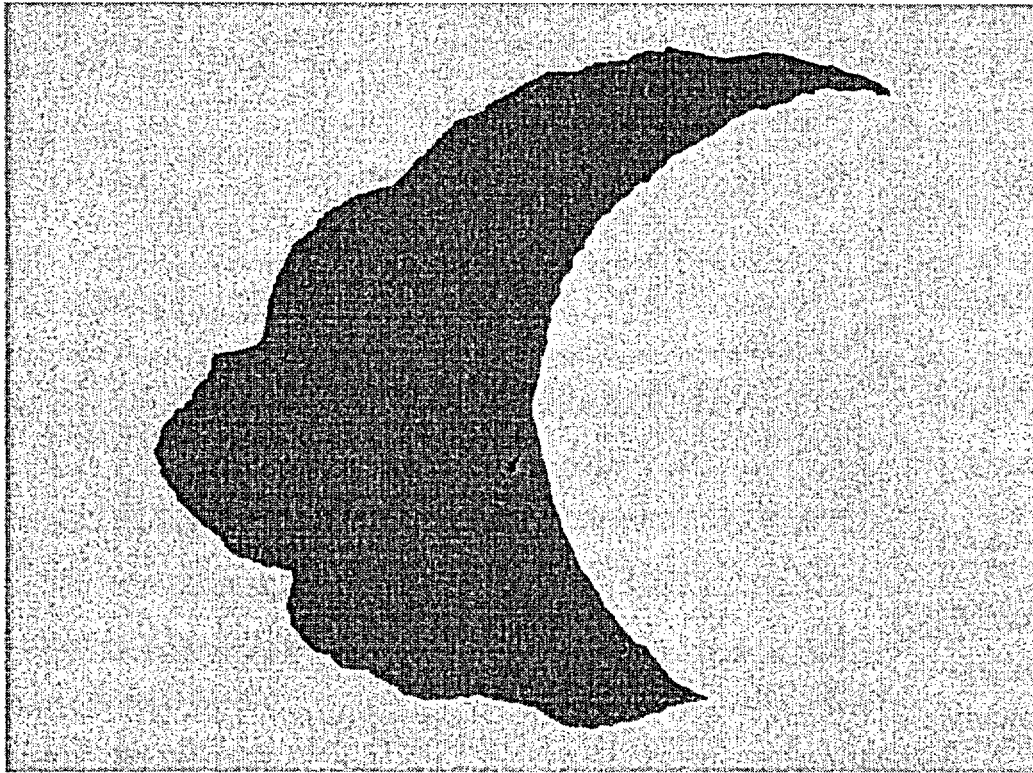


Magnification: $6"/3.82" = 1.57X$

Area of photo: $(6")(1.57) \times (4.5")(1.57X) = 66.55 \text{ in}^2$

Kirk's interpretation: In the photo above:

- The blue curve is the OD of the nozzle
- The area between the red and the blue curves is where the J-groove weld was
- The area between the red and the lime green curves is the area where the cladding was COMPLETELY un-backed by reactor pressure vessel steel.



Area fraction of exposed cladding: 25.95% (by image analysis software)

Area of exposed cladding: $(66.55 \text{ in}^2)(.2595) = 17.27 \text{ in}^2$