

## MFFFPEm Resource

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**From:** MFFFHearingFile Resource  
**Sent:** Monday, July 30, 2012 8:04 AM  
**To:** MFFFPEm Resource  
**Subject:** FW: Upcoming Public Meeting  
**Attachments:** 3960\_001.pdf

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**From:** Tiktinsky, David  
**Sent:** Wednesday, July 18, 2012 7:52 AM  
**To:** MFFFHearingFile Resource  
**Subject:** FW: Upcoming Public Meeting

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**From:** Yates, Douglas A. [<mailto:DAYates@moxproject.com>]  
**Sent:** Wednesday, July 18, 2012 6:42 AM  
**To:** Tiktinsky, David  
**Subject:** Upcoming Public Meeting

FYI

Doug Yates  
Shaw AREVA MOX Services  
Licensing  
BAD-706-5F, Rm 305  
803.819.8668  
[dayates@moxproject.com](mailto:dayates@moxproject.com)

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**Hearing Identifier:** MixedOxideFuelFabricationFacility\_Public  
**Email Number:** 247

**Mail Envelope Properties** (4792243393EAA04CBAD2CFFB94765C0D9C75F580EC)

**Subject:** FW: Upcoming Public Meeting  
**Sent Date:** 7/30/2012 8:04:14 AM  
**Received Date:** 7/30/2012 8:04:16 AM  
**From:** MFFFHearingFile Resource

**Created By:** MFFFHearingFile.Resource@nrc.gov

**Recipients:**  
"MFFFPEm Resource" <MFFFPEm.Resource@nrc.gov>  
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<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1160	7/30/2012 8:04:16 AM
3960_001.pdf	86990	

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**



## Clements Story on Letter to NRC

Deering, Casey (Ruberg) to: Glenn, Sam

07/17/2012 12:07 PM

Cc: "Hall, Kevin", "Ramsey, Clay (SRS)"

"amy.poston@nnsa.srs.gov" , "Cummins, Kelly"

Sam,

Tom Clements just posted an article on the Aiken Leader website that mentions a July 12th letter from MOX Services to the NRC identifying an issue with some piping. The story is below.

Can you please share a copy of the letter with us, as well as any other pertinent information, as Tom notes that ANA plans to raise this at next week's public meeting?

Thanks.

<http://aikenleader.villagesoup.com/blog/blogpost/faulty-piping-received-at-mox-plant-construction-project-at-the-savannah-river-site-unknown-if-pip/864223>

Plutonium Fuel (MOX) Plant Received Faulty Piping Key to Processing Operations, Unknown if Pipe Has Been Placed in MOX Plant

News of Poor Quality Piping Comes Week before NRC "Status" Meeting on MOX Plant Construction at the DOE's Savannah River Site

July 17, 2012 - Columbia, SC --- Quality of important piping in the construction of the plutonium fuel (mixed oxide fuel, MOX) plant at the U.S. Department of Energy's Savannah River Site (SRS) in South Carolina has emerged as an issue of concern, according to a letter to the Nuclear Regulatory Commission (NRC).

Shaw AREVA MOX Services, in charge of the MOX plant construction, has admitted to the Nuclear Regulatory Commission that it has received stainless steel piping from BF Shaw which does not meet required specifications. In a July 12 letter to the NRC, which is reviewing a license application for the facility, the company admitted that some of the piping failed a key test but did not reveal if any of the low-quality pipe had already been placed in the MOX facility.

MOX Services revealed in the letter that some of the ½-inch pipe delivered to the MOX plant was evidently subjected to improper heat treatment and thus did not meet the rigorous standards required for materials being used in the MOX plant construction.

"We call on MOX Service and the NRC to immediately reveal if any faulty piping has been placed in the MOX plant and for it to be removed if that is the case," said Tom Clements of the Alliance for Nuclear Accountability (<http://www.ananuclear.org/>). "In its letter to the NRC, the company does not reveal if any below-specification piping has been installed and the public must now be made aware if this is the case or not. Further, the NRC and MOX Services must do a full review of all other piping placed in the MOX plant and inform the public if that piping meets applicable standards or not."

In the letter, MOX Services states "that some of the pipe provided is thermally sensitized and fails ASTM A262 tests to detect susceptibility to intergranular attack (IGA)." According to its website, ASTM, formerly known as the American

Society for Testing and Materials, "is a globally recognized leader in the development and delivery of international voluntary consensus standards."

Thermal sensitization results from improper heat treatment of stainless steel, possibly containing an improper mix of alloys, causing corrosion-inhibiting elements used to alloy the steel to fail to form the necessary corrosion-resistant protection. Intergranular attack results when the corrosion-inhibition elements do not properly form on the boundaries of the steel, opening the surface to corrosion.

MOX Services says in the letter to the NRC that the faulty piping was supplied to BF Shaw, which appears to be a Shaw-owned company, by Tubacex, a Spanish company which manufactures stainless steel tubing. According to its website - <http://www.tubacex.com> - the company is "dedicated to the manufacture and sale of special seamless stainless steel tubes, exporting to over 60 countries all over the world."

It appears that the piping was set to be used in the area of the MOX plant where plutonium would be purified, or "polished," to remove impurities before being converted to an oxide and fabricated into fuel pellets. According to the two-page "60-Day Interim Report Notification Information" attached to the July 12 letter, "Testing of this heat of material has since been performed twice more by the independent test lab contracted by MOX Services with failing results thus indicating that the pipe is thermally sensitized and susceptible to intergranular corrosion if utilized in an environment with electrolytic potential (e.g., nitric acid, oxalic acid). The 1/2" 304L SS pipe in question is intended for use within the aqueous polishing portion of the MFFF, where these environments exist for many processes."

The NRC is set to hold a "status" meeting on MOX plant construction on July 24 at 2 p.m. in New Ellenton, SC. The issue of faulty piping in the MOX plant construction will be raised by the Alliance for Nuclear Accountability at that meeting. "We will ask the NRC if faulty piping has been used in the MOX plant and for the NRC to require its removal if installation has occurred," said Clements. (See NRC's July 16 news release: <http://pbadupws.nrc.gov/docs/ML1219/ML12198A146.pdf>)

No customers (reactors) exist for the MOX product that may be produced at the plant. A Supplemental Environmental Impact Statement (SEIS) analyzing use of two aging reactors owned by the Tennessee Valley Authority (TVA) is due out of July 27, though the SEIS may be distributed before the formal notice in the Federal Register.

For a copy of the July 12 letter and accompanying document, contact: Tom Clements, [tclements@ananuclear.org](mailto:tclements@ananuclear.org), tel. 803-834-3084

Thanks,

Casey L. Deering  
NNSA Office of Fissile Materials Disposition  
202-586-1563 (office)  
301-366-2758 (cell)  
[Casey.Deering@nnsa.doe.gov](mailto:Casey.Deering@nnsa.doe.gov)