

**Xiong, Yongliang**

*Yongliang Xiong*

569318

**From:** Batchelder, Terry - NWP <Terry.Batchelder@wipp.ws>  
**Sent:** Wednesday, January 31, 2018 2:05 PM  
**To:** Xiong, Yongliang  
**Cc:** Klein, Thomas - RES; Ripley, David - NWP; Batchelder, Terry - NWP  
**Subject:** [EXTERNAL] FW: Reactivity Test for MgO

Good afternoon,

Here is the answers to your questions;

From 1/1/2013 to 12/31/13 WIPP had 6 release order shipments which consisted of 60 reactivity tests. The average reactivity of these samples is 97.0%

From 1/1/2014 to 12/31/14 WIPP had 1 release shipment which consisted of 10 reactivity tests. During the same year WIPP had 3 extra reactivity tests done on the bulk MgO pile at the bagging vendor. The average reactivity of these samples is 95.3%

Due to the fire and radiological events in 2014, no more release order shipments were requested. Also, in this year, WIPP lost their bagging vendor, so all built and staged super-sacks were moved to the WIPP surface facility.

At the beginning of 1/1/2016 to 12/31/16 WIPP had roughly 577 tons (385 sacks) of MgO that is stored on the surface. Due to length of time of being on the surface, a decision was made to resample for reactivity. There were 18 reactivity tests done with an average reactivity of 95.9%

From 1/1/2017 to 12/31/17 there were 21 reactivity tests done with an average reactivity of 96.1%

If you have any questions please call

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(575) 234-8479 (desk)  
(575) 234-8850 pager 155

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**From:** Klein, Thomas - RES  
**Sent:** Tuesday, January 30, 2018 10:38 AM  
**To:** Batchelder, Terry - NWP  
**Subject:** FW: Reactivity Test for MgO

Terry,

I know your extremely busy, but can you provide or direct me where to go (be nice now) to get the below information for Yongliang? The is for drafting the MgO appendix for recertification 2019.

WIPP:4.0.1:PA:0A-L:568737

**Information Only**

I appreciate all you do,  
Tom Klein  
X3205

**From:** Xiong, Yongliang [<mailto:yxiong@sandia.gov>]  
**Sent:** Tuesday, January 30, 2018 10:13 AM  
**To:** Klein, Thomas - RES <[Thomas.Klein@wipp.ws](mailto:Thomas.Klein@wipp.ws)>  
**Subject:** Reactivity Test for MgO

Tom,

Could you provide the following information:

- How many reactivity tests for MgO have been performed between December 31, 2012 and December 31, 2017?
- What is the average reactivity of those samples in terms of mol.%?

Thanks.

Yongliang