

Crossland, Ronnie

From: Maddox, Doug
Sent: Thursday, February 05, 2015 1:29 PM
To: Crossland, Ronnie; Webster, Susan; Fife, Greg
Cc: Leonard, Paul; Kissler, Jeff
Subject: iSCWO info

Below is some information regarding iSCWO. This is one of the options mentioned by the community group. As far as I know, Army has not used it yet for destruction of propellant due to technical issues.

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From: King, James C CIV USARMY HQDA ASA IEE (US) <james.c.king4.civ@mail.mil>
Sent: Wednesday, February 4, 2015 12:56 PM
To: Maddox, Doug; Stuckey, Ronnie D NFG NG LAARNG (US)
Cc: Chiapello, Thierry L CIV OSD OUSD ATL (US)
Subject: FW: ASA(IE&E) - Camp Minden (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

See below.

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

From: Beaver, Jerry W CIV USARMY JMC (US)
Sent: Wednesday, February 04, 2015 12:29 PM
To: King, James C CIV USARMY HQDA ASA IEE (US)
Cc: Roller, Carl H CIV USARMY PEO AMMO (US); Beaver, Jerry W CIV USARMY JMC (US); Dowdy, Billy J CIV USARMY JMC (US); Peer, Rickey A CIV USARMY JMC (US)
Subject: RE: ASA(IE&E) - Camp Minden (UNCLASSIFIED)

Sir, we are currently using a SCWO for the destruction of pink water (explosive contaminated water) in the Korea demil facility. There were tentative plans for an iSCWO to demil propellant but it became overcome with costs to develop the capability, costs to operate per ton, and environmental permitting issues. The propellant would have to be ground down to powder, mixed with water to some low weight by volume ratio and injected into the system. The system would operate at extremely high temperatures and pressures. I'm unaware of any operations that utilized an iSCWO for the

destruction of propellant nor of any specific testing that has been conducted but do know that GA had conducted some testing at Minden using yellow D explosive.

v/r
Jerry

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

From: King, James C CIV USARMY HQDA ASA IEE (US)
Sent: Wednesday, February 04, 2015 10:50 AM
To: Roller, Carl H CIV USARMY PEO AMMO (US); Beaver, Jerry W CIV USARMY JMC (US)
Cc: Crank, Terry G LTC USARMY PEO AMMO (US)
Subject: FW: ASA(IE&E) - Camp Minden (UNCLASSIFIED)
Importance: High

Classification: UNCLASSIFIED
Caveats: NONE

See below, with regard the iSCWO. Has Army done any testing of this system or used it for the destruction of propellant, specifically M6? Is the company's representation realistic?

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

From: Follin, John [mailto:John.Follin@ga.com]
Sent: Tuesday, February 03, 2015 08:57 PM
To: King, James C CIV USARMY HQDA ASA IEE (US)
Cc: Stuckey, Ronnie D NFG NG LAARNG (US)
Subject: RE: ASA(IE&E) - Camp Minden (UNCLASSIFIED)

James,

I didn't know that the time requirement is less than one year. Although it would be a stretch (maybe 1.5 years), we could ship a GA-owned iSCWO system and another iSCWO system that is in standby mode to Camp Minden - with this, you would have 9 gpm quickly online. The 10gpm system could be accelerated to be ready 1/2 way into the process so that the M6 destruction could be done in a little more than one year ---- but this would require careful and logical planning to make this happen -- it would be close.

thanks,

john

From: King, James C CIV USARMY HQDA ASA IEE (US) <james.c.king4.civ@mail.mil>
Sent: Tuesday, February 3, 2015 2:57 AM
To: Follin, John
Cc: Stuckey, Ronnie D NFG NG LAARNG (US)

Subject: --EXTERNAL--Re: ASA(IE&E) - Camp Minden (UNCLASSIFIED)

First, you should know the State of LA is looking for a process that would take less than one year. So, 3 + years would not cut it. However, contact COL Stuckey. He may want a briefing.

If you are in DC (Pentagon) in next few months, I would like a brief.

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

From: Follin, John [mailto:John.Follin@ga.com]
Sent: Monday, February 02, 2015 08:50 PM
To: King, James C CIV USARMY HQDA ASA IEE (US)
Subject: RE: ASA(IE&E) - Camp Minden (UNCLASSIFIED)

James,

No problem - and the process is a very clean (in water) oxidation process with clean air and liquid effluent.

If you are interested in a presentation, please let me know.

Have a great week,

john

From: King, James C CIV USARMY HQDA ASA IEE (US) <james.c.king4.civ@mail.mil>
Sent: Monday, February 2, 2015 1:18 PM
To: Follin, John
Subject: --EXTERNAL--RE: ASA(IE&E) - Camp Minden (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Thanks.

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

From: Follin, John [mailto:John.Follin@ga.com]
Sent: Saturday, January 31, 2015 2:06 PM
To: King, James C CIV USARMY HQDA ASA IEE (US)
Subject: RE: ASA(IE&E) - Camp Minden (UNCLASSIFIED)

James,

If we do the big picture, 3.2 years (including site cleanup at the end for project).

thanks,

john

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

From: King, James C CIV USARMY HQDA ASA IEE (US) [mailto:james.c.king4.civ@mail.mil]
Sent: Thursday, January 29, 2015 9:34 AM
To: Follin, John
Subject: --EXTERNAL--RE: ASA(IE&E) - Camp Minden (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Rough order of time if do the big picture.

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

From: Follin, John [mailto:John.Follin@ga.com]
Sent: Wednesday, January 28, 2015 9:18 PM
To: King, James C CIV USARMY HQDA ASA IEE (US)
Subject: RE: ASA(IE&E) - Camp Minden

James,

Sorry for the delay in answer - I asked our engineers to rerun the iSCWO models to verify throughput. The throughput for the 3gpm is about 6.8 lbs per minute. With 16M pounds of M6, that equates for a iSCWO system running 24/7 (which it can and does). That works out to be 4.47 years - however, there will be downtime and other maintenance issues so with that it be around 5.1 years.

As I indicated in previous emails, we have tested propellant and iSCWO loves to process propellant (correct ratios, organic material, density, etc.). The effluent (both air and water) is clean.

If the 5 year mission is hard to sell, a modification to this plan would be to bring the 3gpm iSCWO system online and start processing the M6 propellant. In parallel, you could move the 10 gpm unit that is currently in storage at McAlester Army Ammunition plant and assemble/test it. Once online, you could then quickly process the remaining M6 propellant using both systems.

Here is how this could work out

Year	3 gpm iSCWO Amount Destroyed	Total	10 gpm iSCWO
1	Bring online and begin 3.2M lbs	3.2M lbs	Move to Camp Minden and install / checkout
2	Continue operation begin waste	10.2M lbs	13.4M lbs
3	Complete operation 2.6M lbs	16M lbs	Complete operation

If you think that iSCWO could be an important solution for the M6 propellant at Camp Minden and you would like a meeting, please let me know - we could travel and meet with you and your staff to discuss. We can discuss using only the 3gpm or the 3gpm/10gpm components that the US Government already owns. We can also discuss detail schedules, site operations, and activities required for iSCWO processing.

Have a great week,

john

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

From: King, James C CIV USARMY HQDA ASA IEE (US) [mailto:james.c.king4.civ@mail.mil]

Sent: Friday, January 16, 2015 10:30 AM

To: Follin, John

Subject: --EXTERNAL--Re: ASA(IE&E) - Camp Minden

What is the throughput - pounds per hour?

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

From: Follin, John [mailto:John.Follin@ga.com]
Sent: Friday, January 16, 2015 01:07 PM
To: King, James C CIV USARMY HQDA ASA IEE (US)
Subject: RE: ASA(IE&E) - Camp Minden

James,

The iSCWO system uses extreme pressure and heat to oxidize in water energetic materials (e.g., the M6 propellant at Camp Minden).

We have tested it on a variety of energetics and the systems (not at Camp Minden) are used for destruction of organics.

In order to destroy the M6 propellant at Camp Minden, the propellant would be slurried in water and then pumped into the iSCWO system in which it would be destroyed (thoroughly oxidized). Both the liquid (water) and gas (air) effluent releases would be clean and not violate any state or federal release rules.

thanks,

john

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

From: King, James C CIV USARMY HQDA ASA IEE (US) [mailto:james.c.king4.civ@mail.mil]
Sent: Friday, January 16, 2015 10:03 AM
To: Follin, John
Subject: --EXTERNAL--Re: ASA(IE&E) - Camp Minden

What does it do?

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

From: Follin, John [mailto:John.Follin@ga.com]
Sent: Friday, January 16, 2015 11:57 AM
To: King, James C CIV USARMY HQDA ASA IEE (US)
Subject: RE: ASA(IE&E) - Camp Minden

James,

As a follow-up to my previous email, is there any interest in using the iSCWO system at Camp Minden to begin cleanup operations?

The building has been cleaned up - we are now beginning to consider moving the system back to San Diego.

If there is any interest, please let me know.

thanks!

john

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

From: Follin, John

Sent: Saturday, October 18, 2014 1:58 PM

To: King, James C CIV USARMY HQDA ASA IEE (US)

Subject: RE: ASA(IE&E) (UNCLASSIFIED)

James,

Sorry for the delay - I have been traveling back to San Diego.

Yes, we do have a iSCWO unit at Camp Minden, La. It was moved from San Diego to Camp Minden in order for tests to be performed - a variety of energetics along with organic cleaning compounds.

The reason for the tests to be performed at Camp Minden is that the local operator had permits, explosive storage units, and personnel that could support test operations.

We have tested the destruction of propellant using iSCWO - and it is quite effective. We were building a 10GPM iSCWO system for BGAD for the purpose but then the new base commander at BGAD decided he wanted to use the building for another project.

So, yes, the systems could effectively destroy the M6 propellant at the site. We did mention this to the Camp Minden base commander but he was not interested.

We are now in the process of cleaning up the building the system is in and then transporting the unit back to San Diego.

I explained to the Honorable Katherine Hammack at the AUSA event about what iSCWO can do, what we have used it with our commercial customers, and a top-level summary of what we have tested through our system.

So, no, the system was NOT sold to LMD for the destruction of propellant - it was moved to Camp Minden to support tests. But the system can be used for the destruction of propellant.

I will be in San Diego this coming Monday and Tuesday - I will be flying to McAlester Army Ammunition Plant (we have a land mine demil project there) but you can continue to reach me by email.

I hope I clarified the iSCWO story at Camp Minden. If you have any further questions, please don't hesitate to call me.

Have a great week!

thanks,

john

From: King, James C CIV USARMY HQDA ASA IEE (US) <james.c.king4.civ@mail.mil>
Sent: Thursday, October 16, 2014 4:30 AM
To: Follin, John
Subject: --EXTERNAL--ASA(IE&E) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

You spoke briefly with the Honorable Katherine Hammack at AUSA about a SCWO at Camp Minden. Please relay to me that discussion, so that IO can address her questions. She was of the opinion that this was sold to LMD for destruction of propellant. I do not believe this correct. There was a SCWO on site being tested, but its relationship to the demilitarization of millions of pound of M6 is limited, if not existent. Please advise.

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Caveats: NONE