

**Subject:** L070130-00-V, VRB response to question to about stored Class A materials  
**From:** Dennis Coyne <coyne@ligo.caltech.edu>  
**Date:** Fri, 12 Sep 2008 15:07:27 -0700  
**To:** Dennis Coyne <coyne@ligo.caltech.edu>

Reference LIGO-L070130-00

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

**Subject:**Re: L070094-00-V question to VRB about stored Class A materials  
**Date:**Fri, 26 Oct 2007 14:53:05 -0700  
**From:**John Worden <[worden\\_j@ligo-wa.caltech.edu](mailto:worden_j@ligo-wa.caltech.edu)>  
**To:**Michael Zucker <[zucker\\_m@ligo.mit.edu](mailto:zucker_m@ligo.mit.edu)>  
**CC:**John Worden <[worden@ligo.caltech.edu](mailto:worden@ligo.caltech.edu)>, Rai Weiss <[weiss@ligo.mit.edu](mailto:weiss@ligo.mit.edu)>, Bill Tyler <[tyler\\_w@ligo.caltech.edu](mailto:tyler_w@ligo.caltech.edu)>, Riccardo DeSalvo <[desalvo\\_r@ligo.caltech.edu](mailto:desalvo_r@ligo.caltech.edu)>, David Shoemaker <[dhs@ligo.mit.edu](mailto:dhs@ligo.mit.edu)>, Dennis Coyne <[coyne@ligo.caltech.edu](mailto:coyne@ligo.caltech.edu)>  
**References:**<[7714bc9d5819fb53ec17f00cfda0df5d@ligo.mit.edu](mailto:7714bc9d5819fb53ec17f00cfda0df5d@ligo.mit.edu)>

Kyle and I agree that there should not be a shelf life issue except for some parts that may have been stored with an inert gas. Kyle was not absolutely sure that we actually did this but thought that we had in the past.

We talked about the human factor - someone could unwrap the bag to look and handle the part and seal it back up as if original. However, this is a risk regardless of age. Does this risk become significant with age?

Our conclusion: If there is no evidence of disturbed packaging and labeling - use it. Dissenters speak up.

John

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

**Subject:**Re: L070094-00-V question to VRB about stored Class A materials  
**Date:**Fri, 26 Oct 2007 20:23:18 -0400  
**From:**Michael Zucker <[zucker\\_m@ligo.mit.edu](mailto:zucker_m@ligo.mit.edu)>  
**To:**Michael Zucker <[zucker\\_m@ligo.mit.edu](mailto:zucker_m@ligo.mit.edu)>  
**CC:**John Worden <[worden@ligo.caltech.edu](mailto:worden@ligo.caltech.edu)>, Rai Weiss <[weiss@ligo.mit.edu](mailto:weiss@ligo.mit.edu)>, David Shoemaker <[dhs@ligo.mit.edu](mailto:dhs@ligo.mit.edu)>, William Tyler <[tyler\\_w@ligo.caltech.edu](mailto:tyler_w@ligo.caltech.edu)>, Riccardo DeSalvo <[desalvo\\_r@ligo.caltech.edu](mailto:desalvo_r@ligo.caltech.edu)>, Dennis Coyne <[coyne@ligo.caltech.edu](mailto:coyne@ligo.caltech.edu)>  
**References:**<[7714bc9d5819fb53ec17f00cfda0df5d@ligo.mit.edu](mailto:7714bc9d5819fb53ec17f00cfda0df5d@ligo.mit.edu)>  
<[6.2.1.2.2.20071026143222.052b5008@becrux.ligo.caltech.edu](mailto:6.2.1.2.2.20071026143222.052b5008@becrux.ligo.caltech.edu)>  
<[cdf16092e089246af9c65f6fa852f5d1@ligo.mit.edu](mailto:cdf16092e089246af9c65f6fa852f5d1@ligo.mit.edu)>

Sorry that sentence got cut off. Was saying those old parts were late production and lived in a relaxed schedule, whereas I'm more worried about folks getting sloppy with current parts coming through process "just in time" ...or a little late. But that's a QA question isn't it.

On Oct 26, 2007, at 20:03, Michael Zucker wrote:

> s grabbed from the oven in the heat of battle.

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

**Subject:**Re: L070094-00-V question to VRB about stored Class A materials

**Date:**Fri, 26 Oct 2007 20:03:45 -0400

**From:**Michael Zucker <[zucker\\_m@ligo.mit.edu](mailto:zucker_m@ligo.mit.edu)>

**To:**William Tyler <[tyler\\_w@ligo.caltech.edu](mailto:tyler_w@ligo.caltech.edu)>

**CC:**John Worden <[worden@ligo.caltech.edu](mailto:worden@ligo.caltech.edu)>, Rai Weiss <[weiss@ligo.mit.edu](mailto:weiss@ligo.mit.edu)>, David Shoemaker <[dhs@ligo.mit.edu](mailto:dhs@ligo.mit.edu)>, Riccardo DeSalvo <[desalvo\\_r@ligo.caltech.edu](mailto:desalvo_r@ligo.caltech.edu)>, Dennis Coyne <[coyne@ligo.caltech.edu](mailto:coyne@ligo.caltech.edu)>

**References:**<[7714bc9d5819fb53ec17f00cfda0df5d@ligo.mit.edu](mailto:7714bc9d5819fb53ec17f00cfda0df5d@ligo.mit.edu)>  
<[6.2.1.2.2.20071026143222.052b5008@becrux.ligo.caltech.edu](mailto:6.2.1.2.2.20071026143222.052b5008@becrux.ligo.caltech.edu)>

This stuff was stored in the optics lab cabinets at LLO or LHO where the original suspension preps were done. This is about the best environment we have access to (in retrospect, I'm surprised I didn't ever make a stink about wasting all that prime lab space on dead storage!).

In the present cases the proposer is the person who put it away in the first place (Betsy or Gary mostly). The tape used to affix labels on the folded-over stat bags makes it hard to unwrap for a peek without giving yourself away, but to some degree we have to trust people to obey the warnings. s grabbed from the oven in the heat of battle.

My recollection is usually a zipped bag with the travelers/certs is taped to the outside of the outermost (#3) bag. But I don't remember what doc standards applied to the original hardware.

On Oct 26, 2007, at 17:40, William Tyler wrote:

> Hello Mike,  
> Do you have any records/history on storage environment (for example, > was the storage area access controlled or limited ?), was the material > in the same location during all of the storage time, if not, what is > the reason?  
> Can you "prove" that packaging was not opened or compromised ?  
> Is all of the original "acceptance" paperwork still available ?  
> Bill Tyler

>  
>

> At 02:09 PM 10/26/2007, Michael Zucker wrote:

>> Ref. LIGO-L070094-00-V

>>

>> I fielded a couple questions about the use of baked, leftover Class A >> hardware spares still on the shelf from the >> initial detector build or intermediate installations over the last >> few years.

>>

>> I see no reason we cannot just use it, providing its packaging and >> labeling remain intact and its original >> certs indeed qualified it for installation. In other words I don't >> see any shelf life issue.

>>  
>> However I agreed to ask whether the VRB agrees.  
>>  
>> For concreteness, we're talking about a few mounts and some glass  
>> beam dumps.  
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