

Los Alamos

Environmental Restoration
Records Processing Facility

**LOS ALAMOS NATIONAL LABORATORY
ENVIRONMENTAL RESTORATION
Records Processing Facility
ER Records Index Form**

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14026

To: wilson_julie_s@lanl.gov
From: rblegen@fimad.lanl.gov (Ron Blegen)
Subject: TA-43 Waste Streams (in the past)

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Hello Ms. Wilson:

I work for ERM/Golder, a subcontractor to the Environmental Restoration Project. We are currently performing a RCRA Facility Investigation at the Pueblo Wastewater Treatment Facility which is located at the head of Pueblo Canyon. Some of the records that have been located have indicated that wastewater from TA-43 fed the Pueblo plant until the early-1980's, when it re-routed to another facility. Although it can probably be assumed that this waste stream contained only sanitary liquid wastes, we wanted to determine if there was a chance the stream may have had the potential to carry elevated levels of radioactive or hazardous compounds. We did find some slightly elevated levels of radiation at the plant site and I'm trying to backtrack to get a better idea of where it may have come from.

Earlier this week I spoke with John Horne, who suggested I contact you. He indicated that there has always been strict restrictions on what can go into the TA-43 wastewater stream and was surprised that we had found slightly elevated rad levels at the plant. If you have any information to add regarding your knowledge of the wastewater stream or waste disposal practices prior to 1984, I'd appreciate hearing from you.

Thanks.

Ron

cc: Project Files AH588.1.4

Received by ER-RPF

SEP 03 1998

MA

Mime-Version: 1.0
Date: Fri, 23 May 1997 10:35:05 +0600
To: rblegen@fimad.lanl.gov (Ron Blegen)
From: julie@telomere.lanl.gov (Julie Wilson)
Subject: Re: TA-43 Waste Streams (in the past)

In the "past", prior to ~1990, liquid wastes of Phosphorus-32 were permitted in sanitary waste streams at HRL. Phosphorus-32 is a beta-emitting isotope with a half-life of 14.3 DAYS, so I doubt that this could be the source of any rad you find now. We did conduct work with Carbon-14 and Tritium, but these were not usually disposed of into the drains. All of this work was with low quantities, micro-liters, of materials though the specific activities could be in millicuries. These wastes were NOT flushed down the drains but were removed as rad wastes. We also conducted work with alpha-emitters, Pu- 238 and 239, U-238 and 239, Po-210, Promethium and Thorium. As a worker in these programs I believe we managed all of these isotopes as rad wastes, they did not get flushed down the drains. P-32 was the only isotope disposed of into the drains.

For chemicals, prior to the establishment of the LANL chemical waste management system it would be hard to say where chemical wastes went. Then, as now, the bulk of our wastes are salt buffers and cell culture medias (chicken soup). We have prepared an extensive documentation of all of these for every lab in HRL. They do not have any hazardous characteristics and do not contain hazardous chemicals. These are and were disposed of into the drains. Other major chemical wastes include alcohols- ethyl, methyl and butyl principally. These are now collected for disposal as chem waste, but previously may have been drain waste. All of our operations have been laboratory-scale work, not production and generally deal in volumes of 10 liters/month or less (much less- even milliliters). We are and have used several dyes or stains for cells, some fluorescent (ethidium bromide and propidium iodide) and some based on crystal blue or violet - again milligrams not pounds.

So if your rad is beta-emitting call me. The chemicals would be a guess unless you have specific analytical results that we can discuss and track down. If I can be of any further help just let me know.

>Hello Ms. Wilson:

>
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>Project. We are currently performing a RCRA Facility Investigation at the
>Pueblo Wastewater Treatment Facility which is located at the head of Pueblo
>Canyon. Some of the records that have been located have indicated that
>wastewater from TA-43 fed the Pueblo plant until the early-1980's, when it
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>Thanks.

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>Ron

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>cc: Project Files AH588.1.4

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>Ron Blegen (rblegen@fimad.lanl.gov)

>ERM/Golder

>662-1306 (office)

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X-Sender: julie@telomere.lanl.gov
Mime-Version: 1.0
Date: Fri, 23 May 1997 11:42:21 -0600
To: rblegen@fimad.lanl.gov (Ron Blegen)
From: Julie Wilson <julie@telomere.lanl.gov>
Subject: Re: TA-43 Waste Streams (in the past)

Promethium is a beta-emitter also, with several months half-life, but again we used it in microliter quantities, having millicurie activities. The work was done in the late 1970's and early 1980's. Again, it would not have been routine to dispose of any of these wastes into the drain- the work had limited (milliliters) liquid wastes. The only mercury we use is in thermometers, they do break, but again the waste would likely have been into solid waste streams not down the drains.

At 11:39 AM 5/23/97 -0600, you wrote:

>Thanks for the information. It seemed unlikely that TA-43 was the source
>of what little contamination we found, but we need to check all the
>possibilities. We did have one sample with slightly elevated gross beta
>concentrations, and elevated mercury showed up as well. We are trying to
>decide if it is worth it to run isotopic analysis on some of our samples.

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>I'll let you know if we need further information. Thanks again.

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>Ron

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>
>Ron Blegen (rblegen@fimad.lanl.gov)
>ERM/Golder
>662-1306 (office)
>662-1398 (fax)

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