

21/43

CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

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NONCONFORMANCE REPORT

Project No. 20-1402-VariouS

NCR No. 98-04

PART 1: DESCRIPTION OF NONCONFORMANCE

During surveillance 98-07, it was noted that chemicals and items with expiration dates prior to May, 1998 were in two of the CNWRA Laboratories. Specifically, in the Geochemistry Lab, Bldg. 57, Room L106, seven bottles were noted to have had the shelf life exceeded. In the BioHazard Lab, Bldg. 57, Room L113, several packages with expired dates were found in a box on the lab bench, apparently ready for disposal (earlier, other out-of-date materials had been properly disposed of by Laboratory staff).

For specific identification on each of the out-of-date chemical bottles and materials, see Surveillance Report 98-07, attached.

Initiated by: *Sam Malins* Date: 5/20/98

PART 2: PROPOSED DISPOSITION AND CORRECTIVE ACTION (Assigned to: E. Pearcy and N. Sridhar)

Disposition: The expired chemicals in Rm L113 (Microbiology Lab) will be disposed off through SWRI procedures. We are awaiting the forms for listing chemicals to be disposed. The anticipated date for completing the disposal of microbiological reagents is 6/5/98.

Basis of Disposition: These chemicals have not been used since they expired because the project was terminated prior to their expiration date. The project was terminated in Sept. 1996.

Action to correct nonconformance:

After project termination reagent chemicals with finite shelf life will be disposed off properly through SWRI.

Target date for completion: 6/5/98 per N. Sridhar

Proposed by: *P.C. Ray* 5/22/98 (See Attached) Date: 5/21/98

PART 3: APPROVAL

QSA

TECHNICAL DIRECTOR *Buchi Sagar* Date: 5/26/98
 Element Manager: _____

Director of QA: *Sam Malins* Date: 5/27/98

Comments/Instructions:

E-mail messages are attached showing actions taken.

PART 4 CLOSE OUT

Comments: *On 6/12/98 I performed a check in Bldg 57 and verified the expired materials had been removed.*

Verified by: *Sam Malins* Date: 6/12/98

Distribution:

- E. Pearcy
- N. Sridhar
- Element Managers
- B. Sagar
- H. Garcia
- Original to QA Records
- M. EHNSTROM



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REPORT NO: 98-07

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REFERENCE DOCUMENTS: 1. CNWRA Quality Assurance Manual, Revision 2 Change 11, Section 8, Identification and Control of Items, Software, and Samples, paragraph 8.3.4; 2. QAP-004 Surveillance Control Procedure.

STARTING DATE: 04/30/98

ENDING DATE: 05/19/98

QA REPRESENTATIVE: B. Mabrito

PERSONS CONDUCTING ACTIVITY: J. Prikryl, D. Dunn, M. Hill, S. Leppala, S. Brossia

SATISFACTORY FINDINGS: 1. In the Geochemistry Laboratory, Bldg. 57, Room L106, chemicals have been very well sorted in accordance with the color category of their labels matched to "shelf colors" in the room. The industry color code standard is posted in at least two of the CNWRA Labs and is: (i) R • Storage Code Red, flammable, store in area segregated for flammable reagents; (ii) Y • Storage Code Yellow, reactive and oxidizing reagents; may react violently with air, water or other substances; store away from flammable and combustible materials; (iii) B • Storage Code Blue, health hazard: toxic if inhaled, ingested or absorbed through skin, store in secure area; (iv) W • Storage Code White, corrosive, may harm skin, eyes, mucous membranes, store away from red-, yellow- and blue-coded reagents; (v) G • Storage Code Gray, presents no more than moderate hazard in any category, for general chemical storage. In the gray code storage cabinet there were two expired chemical bottles: Ammonium Thiocyanate 0.1N, LabChem Inc., received by CNWRA 5/25/93, expiration date 3/9/95; Silver Nitrate Solution N/10, three bottles with an expiration date of May 1993 were also marked "DO NOT USE-EXPIRED," however the fourth bottle was equally date expired but not so marked. In the white code storage cabinet, the only bottle with an expired date was Ammonium Phosphate 50% WN, expiration date 3/17/95. In the yellow code storage cabinet there were no expired chemicals. In the blue code storage cabinet, one bottle, Methylene Blue Reagent, APHA (for surfactants), LabChem Inc., was received 4/21/93 and had an expiration date of 4/14/95.

2. In the Corrosion Lab, Bldg. 57, Room L111, chemicals are primarily stored in the bottle/sample plate storage room and there were no bottles identified that are being stored beyond expiration dates. The "earliest" expiration date found in the Corrosion Lab was February 1999.

3. In the Materials Laboratory and the BioHazard Lab, Bldg. 57, Room L113, all chemicals in the cabinets checked out acceptable as far as expiration dates. On the lab bench however, the following expired date items were found: BBL GasPak Plus Anaerobic System envelopes with Palladium catalyst (10 packages), expiration date 1 February 98; Becto Dickinson Microbiology Systems, BBL Oxidase Reagent Droppers (50 total), expiration date 30 November 90; Bacto Marine Broth 2216, Lot 51401JA, expiration date June 97; LabChem Inc., Rhodanine Indicator 0.02%, Lot 5114-4, expiration date 4/24/97; Bacto Gram Crystal Violet Primary Stain, Lot 90498, expiration date October 97; DIFCO Laboratories Bacto Gram Diluent for Preparing Gram Iodine Mordant, Lot 89650, expiration date Sep 97; DIFCO Laboratories Bacto Gram SAFRANIN Counterstain, Lot 90283, expiration date October 97. After discussions with M. Hill and D. Dunn, it was determined that the entire batch of timedated items was culled from the BioHazard stock and was being prepared to be properly disposed of in accordance with SWRI requirements.

4. Microbiology/Hydrogeology Laboratory, Bldg. 51, no expired chemical labels on bottles were identified.

5. Although the above expired chemical bottles were identified in two locations in the CNWRA Laboratories, the percentage of expired chemicals of the total number is very small. In each case, it is expected that corrective action to either remove the bottles or clearly label them as "DO NOT USE-EXPIRED" (which is an acceptable approach since the chemicals may need to be retained as a "historical reference") will take place promptly.

UNSATISFACTORY FINDINGS: The above noted items in numbers 1 and 3 need to be addressed.

NONCONFORMANCE REPORT NO: 98-04.

ATTACHMENTS: None.

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RECOMMENDATIONS/ACTIONS: None, other than address the nonconforming material.

APPROVED: 
CENTER DIRECTOR OF QUALITY ASSURANCE

DATE 5/20/98

DISTRIBUTION

ORIGINAL - CENTER QA DIRECTOR QA Records
ORIGINATOR B. Mabrito
PRINCIPAL INVESTIGATOR
ELEMENT MANAGERS
B. Sagar; H. Garcia; P. Mackin

Geochem Actions ^{24/43} Complete.
E. C. Pearcy
5/22/88
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Date: 5/21/98
Sender: Bruce Mabrito
To: English Pearcy, James Prikryl
cc: Narasi Sridhar, Maria Padilla, Darrell Dunn
Priority: Normal
Subject: Ref[3]:QA Surveillance

You guys are really something else and quite efficient!! I have the nonconformance report going out today. I will attach your email messages to my copy and have you (English) sign it. I understand that Darrell Dunn is also working on his. Bruce

Reply Separator

Subject: Re[2]:QA Surveillance
Author: English Pearcy
Date: 5/21/98 1:46 PM

Jim,

Thanks for the prompt response and action. I appreciate your diligence.

English

Reply Separator

Subject: Re:QA Surveillance
Author: James Prikryl
Date: 5/21/98 1:33 PM

Already done, all expired chemicals included in the surveillance report have been disposed of.

Jim

Reply Separator

Subject: QA Surveillance
Author: English Pearcy
Date: 5/21/98 1:22 PM

Jim,

I just got Bruce Mabrito's most recent surveillance report on the expiration dates of chemicals. Please work with Bruce to dispose of chemicals in the geochem areas that have passed their expiration dates or them mark "do not use" if there is some reason to retain them.

Please send me an email when you have completed this exercise.

Thanks,

English

cc: Mabrito

25/43

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Date: 6/4/98
Sender: Darrell Dunn
To: Bruce Mabrito
Priority: Normal
Subject: Waste

I have the waste form filled out and I will make arrangements today to have the expired reagents removed from our lab as soon as I can. Sorry for the delay on this but things have been pretty crazy lately.

I did get the AP 10 back from the safety department. Hopefully I can review their comments and make the necessary changes later today or Fri. I am planning to give this back to Maria unless you think there is a better person to do this. Please let me know.

Lastly, on Monday I really had a bad day. One of our \$16K potentiostats that we are using in the Air Force project burned some electronic components (burning electronics always smells expensive). But what really made my day is getting stung by a wasp from a freshly made nest outside the front door of building 57. I called B&G but I also brought some spray on Tuesday morning and took out several of the most obvious problem nests. In the long run I am thankful it was me that got zapped and not someone else since I know I am not going to need a trip to the hospital and have experienced the pleasure of getting stung many times before. In any case, take a look around 189 for some of these hostile creatures, after all, tis the season.

DSM

26/43

Date: 6/8/98
Sender: Darrell Dunn
To: Bruce Mabrito
cc: Narasi Sridhar
Priority: Normal
Subject: Chemical waste

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I have removed the expired chemicals from the lab. I do not know when they will be shipped out but I think that it will be sometime in the next two weeks. We can expect a bill some number of weeks after that.

D. Dunn
6/8/98