

START

Meeting Minutes Transmittal - Comment Draft

Unit Managers Meeting
105-DR LARGE SODIUM FIRE FACILITY
Federal Building, Room 784-B Video Telconference Center
Richland, Washington

Meeting Held May 4, 1994
From 8:00 am to 9:30 am

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Unit Managers Meeting.

Randall N. Krekel Date: 6-16-94
Randall N. Krekel, Unit Manager, RL

Not Present Date: _____
Daniel L. Duncan, RCRA Program Manager, EPA Region 10

Scott E. McKinney Date: 9/23/94
Scott E. McKinney, Unit Manager, Washington State Department of Ecology

105-DR Large Sodium Fire Facility, WHC Concurrence

Fred A. Ruck III Date: 6/16/94
Fred A. Ruck III, Contractor Representative, WHC

Purpose: Discuss Permitting Process

Meeting Minutes are attached. The minutes are comprised of the following:

- Attachment 1 - Agenda
- Attachment 2 - Summary of Discussion and Commitments/Agreements
- Attachment 3 - Attendance List
- Attachment 4 - Action Items
- Attachment 5 - Toxicity Associated With Lithium Carbonate

9413288.2172



Attachment 1

**Unit Managers Meeting
105-DR LARGE SODIUM FIRE FACILITY
Federal Building Room 783B Video Teleconference Center
Richland, Washington**

**Meeting Held May 4, 1994
From 8:00 am to 9:30 am**

Agenda

1. Approval of Past UMM Minutes
2. Status Action Items
 - No open action items
3. Status Closure Activities
 - Discuss Lithium Toxicity
4. New Business
5. Set Next Meeting Date

9413288-2173

Attachment 2

**Unit Managers Meeting
105-DR LARGE SODIUM FIRE FACILITY
Federal Building Room 783B Video Teleconference Center
Richland, Washington**

**Meeting Held May 4, 1994
From 8:00 am to 9:30 am**

Summary of Discussion and Commitments/Agreements

1. Approval of Past UMM Minutes

There were no UMM in February, March or April. Therefore, no UMM Minutes were approved. All past UMM Minutes have been approved and signed.

2. Status Action Items

- No open action items.

3. Status Closure Activities

- **Discussion of Lithium Toxicity.**

WHC (R. T. Hendrix) provided an update on the lithium toxicity issue. Attachment 5: Toxicity Associated with Lithium Carbonate, contains information about health risks associated with the compound. The sitewide soil background for Lithium Carbonate is 35 ppm. Ecology (S. E. McKinney) stated that this concentration should represent the clean up level.

The informal Notice of Deficiency provided by Ecology requested further information be added to the closure plan on three areas of concern: Activities at 105-DR between partial clean closure and Reactor Decontamination and Decommissioning, 116-DR-8 Crib Discharge records, and modifications to the sampling plan. Draft versions of the text to be added to the closure plan will be prepared for the next UMM.

4. New Business

- **Status of New Unit Manager**

Ecology (S. E. McKinney) has again been assigned as the Ecology Unit Manager responsibility for the 105-DR Large Sodium Fire Facility Closure Plan.

5. Set Next Meeting Date

The next UMM will be held on June 7, 1994, in the Federal Building Video Teleconference Center in Richland, Washington.

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Attachment 4

**Unit Managers Meeting
105-DR LARGE SODIUM FIRE FACILITY
Federal Building Room 783B Video Teleconference Center
Richland, Washington**

**Meeting Held May 4, 1994
From 8:00 am to 9:30 am**

Action Items

Action Item #

Description

No open action items.

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Attachment 5:

Toxicity Associated with Lithium Carbonate

There are no toxicity values for Lithium carbonate listed on the Integrated Risk Information System (IRIS) or in the Health Effects Assessment Summary Tables. These are the best sources of such information because the information provided has been through peer-review.

There is information on Lithium Carbonate in other toxicology information databases. Examples appear in the citations below. One approach is to use the 8 mg/Kg dose cited as the lowest toxic dose that appears in the literature as a starting point. Since this is a dose at which toxicity was observed, it is appropriate to incorporate a margin of safety. How much of a margin is a matter of judgement. One method uses a factor of 10 as does the EPA under such circumstance. This would provide a reference dose of 0.8 mg/kg/day. The citation of the source of the information should state that an uncertainty factor of 10 has been incorporated for information retrieved from an article in the American Journal of Psychiatry 141:909, 1984, and listed in the RTECS(R) database by Micromedex, Inc. Vol. 20 which Expires 4/30/94.

HSDB

Topic: LITHIUM CARBONATE

Major Uses:

1. IN THE PRODUCTION OF GLAZES ON CERAMIC & ELECTRICAL PORCELAIN **PEER REVIEWED** [The Merck Index. 9th ed. Rahway, New Jersey: Merck & Co., Inc., 1976. 722
2. CATALYST; MFR OTHER LITHIUM COMPD, COATING OF ARCWELDING ELECTRODES; NUCLEONICS; LUMINESCENT PAINTS; VARNISHES & DYES; GLASS CERAMICS; ALUMINUM PRODUCTION **PEER REVIEWED** [Hawley, G.G. The Condensed Chemical Dictionary. 9th ed. New York: Van Nostrand Reinhold Co., 1977. 519
3. MEDICATION: IN TREATMENT OF MANIC PHASE OF MANIC-DEPRESSIVE ILLNESS, AS MOOD-STABILIZING DRUG & AS ANTIDEPRESSANT **PEER REVIEWED** [Goodman, L.S., and A. Gilman. (eds.) The Pharmacological Basis of Therapeutics. 5th ed. New York: Macmillan Publishing Co., Inc., 1975. 18

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RTECS(R)

Topic: LITHIUM CARBONATE (2:1)

3.0 HEALTH HAZARD DATA

3.1 ACUTE TOXICITY

3.1.1 TDLO/TCLO - LOWEST PUBLISHED TOXIC DOSE/CONC

A. HUMAN

1. TDLo; ROUTE: Oral; DOSE: 4111 mg/kg; TOXIC EFFECTS: BEHAVIORAL - Tremor; BEHAVIORAL - Muscle weakness; GASTROINTESTINAL - Other changes; REFERENCE: New England Journal of Medicine 287:867, 1972. <CODEN NEJMAG>

B. MAN

1. TDLo; ROUTE: Oral; DOSE: 8 mg/kg; TOXIC EFFECTS: GASTROINTESTINAL - Nausea or vomiting; SKIN AND APPENDAGES - Dermatitis, other; REFERENCE: American Journal of Psychiatry 141:909, 1984. <CODEN AJPSAO>
2. TDLo; ROUTE: Oral; DOSE: 54 mg/kg; TOXIC EFFECTS: BEHAVIORAL - Sleep; BEHAVIORAL - Hallucinations, distorted perceptions; REFERENCE: New Zealand Medical Journal 97:23, 1984. <CODEN NZMJAX>
3. TDLo; ROUTE: Oral; DOSE: 1080 mg/kg/13W-I; TOXIC EFFECTS: SKIN AND APPENDAGES - Dermatitis, allergic; REFERENCE: Journal of Clinical Psychiatry 47:330, 1986. <CODEN JCLPDE>

C. WOMAN

1. TDLo; ROUTE: Oral; DOSE: 120 mg/kg/10D-I; TOXIC EFFECTS: BEHAVIORAL - Excitement; REFERENCE: Journal of Clinical Psychiatry 48:81, 1987. <CODEN JCLPDE>
2. TDLo; ROUTE: Unreported; DOSE: 556 mg/kg/32D; TOXIC EFFECTS: BEHAVIORAL - Toxic psychosis; REFERENCE: JAMA, Journal of the American Medical Association 213:865, 1970. <CODEN JAMAAP>

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TOMES(R) Medical Management

Topic: LITHIUM CARBONATE

6.6 CALCULATIONS

A. LITHIUM ION (SERUM)

1. SI UNIT CONVERSION

- a. To convert traditional units (milliequivalents/liter) into SI units (millimoles/liter), multiply traditional units by 1.0.
- b. To convert SI units (millimoles/liter) into traditional units (milliequivalents/liter), divide SI units by 1.0.

2. SI UNIT CONVERSION

- a. To convert traditional units (micrograms/deciliter) into SI units (millimoles/liter), multiply traditional units by 0.001441.
- b. To convert SI units (millimoles/liter) into traditional units (micrograms/deciliter), divide SI units by 0.001441.

3. SI UNIT CONVERSION

- a. To convert traditional units (milligrams/deciliter) into SI units (millimoles/liter), multiply traditional units by 1.441.
- b. To convert SI units (millimoles/liter) into traditional units (milligrams/deciliter) divide SI units by 1.441.

B. Each gram of lithium carbonate contains 27 milliequivalents of lithium. Each millimole of lithium represents 1 milliequivalent.

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7.0 AVAILABLE FORMS/SOURCES

- A. 300 mg (8.1 mEq) capsules and tablets (Eskalith(R)), Lithonate(R), Lithane(R), Lithotabs(R),
- B. 300 mg sustained release capsule (Lithobid(R));
- C. 8 Meq (as citrate equivalent to 300 mg lithium carbonate) per 5 ml syrup (Lithonate-S(R), Lithium Citrate(R)).
- D. LITHIUM BATTERY: Lithium batteries vent toxic gases.

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J. J. Wallace	Ecology	Kennewick
Field File Custodian	WHC	H6-08
RCRA File/GHL	WHC	H6-23

ADMINISTRATIVE RECORD: 105-DR Large Sodium Fire Facility Closure Plan, (T-1-1), Care of EPIC, WHC (H6-08)]

Washington State Department of Ecology Nuclear and Mixed Waste Hanford Files,
P.O. Box 47600, Olympia, Washington 98504-7600

Environmental Protection Agency Region 10, Seattle, Washington 98101, Mail Stop HW-074,
"Records Center"

Please send comments on distribution list to Kym D. Tartar (H6-23), (509) 376-4701.

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