

TA 03



*Environmental Protection Division
Water Quality & RCRA (ENV-RCRA)*
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-0666/FAX: (505) 667-5224

Date: January 26, 2007
Refer To: ENV-RCRA: 07-017
LA-UR: 06-6669

Ms. Marcy Leavitt, Bureau Chief
Surface Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2050
P.O. Box 26110
1190 St. Francis Drive
Santa Fe, NM, 87502

**SUBJECT: FIRE SUPPRESSION WATER RELEASE NEAR TECHNICAL AREA
(TA) 03 BUILDING 38, REQUEST FOR CLOSURE UNDER NMWQCC
REGULATIONS**

Dear Ms. Leavitt:

On December 18, 2006, the Laboratory's Water Quality and RCRA Group (ENV-RCRA) notified the New Mexico Environment Department (NMED) of a fire suppression water release to the environment pursuant to the New Mexico Water Quality Control Commission (NMWQCC) Regulations (20.6.2.1203 NMAC). The release occurred from a broken fire suppression head under a portal at TA-3-38.

The Laboratory has submitted all NMWQCC notification and reporting requirements and completed corrective actions associated with this release. Enclosed for your review is the Updated Release / Discharge Notification form (Enclosure 1).

The Laboratory is requesting that NMED closeout this release under the NMWQCC Regulations (20.6.2 NMAC). Please contact Mark Haagenstad at (505) 665-2014 if you have any questions.

Sincerely,

Anthony R. Grieggs
Group Leader
Water Quality & RCRA Group (ENV-RCRA)

ARG/MH/tag



5839

Enclosure: a/s

Cy: Richard Powell, NMED/SWQB, Santa Fe, NM, w/enc.
Chris Vick, NMED/GWQB, Santa Fe, NM, w/enc.
Steve Connolly, NMED/HWB, Santa Fe, NM, w/enc.
Erik Galloway, NMED/OB, w/enc., MS J993
Steve Yanicak, NMED/OB, w/enc., MS J993
Gene Turner, NNSA/LASO, w/enc., MS A316
Richard V. Bynum, PADOPS, w/enc., MS A102
Richard Watkins, ADESHQ, w/o enc., MS K491
Tori George, ENV-DO, w/o enc., MS J978
Mike Saladen, ENV-RCRA, w/o enc., MS K490
Mark Haagenstad, ENV-RCRA, w/enc., MS K490
Andrew Erickson, FME-IFCS, w/enc., MS P08
Alva Sisneros, QA-OA, w/enc., MS M987
ENV-RCRA, File, w/enc., MS K490
IRM-RMMSO, w/enc., MS A150

Enclosure 1

RELEASE / DISCHARGE NOTIFICATION

LOS ALAMOS NATIONAL LABORATORY LA-UR-06-8859

Permit Number: NM0028355

Calendar Year

2006

NPDES or Operational Spill/Release <input checked="" type="checkbox"/>	} Indicate with "X" in appropriate box.	Release ID Number:
ER Spill/Release <input type="checkbox"/>		168
Other Spill/Release <input type="checkbox"/>		

Responsible Facility/User Group: FME-IFCS

Contact Person: Andrew Erickson Pager #: 664-5913

Phone #: 665-2272 Cell Phone #: 231-1430

Release/Discharge Location: A dumpster transport worker drove through the south portal entrance of Technical Area 3, Building SM-38 and struck a sprinkler head located overhead on the ceiling of the portal.

TA: 3

Building: 38

If the release/discharge is associated with a NPDES Outfall, Potential Release Site (PRS) or Solid Waste Management Unit (SWMU), indicate the site/unit number and its relationship to the release/discharge:

NPDES Outfall: PRS: SWMU: PRS/SWMU Number: 3-013(a)

Indicate with "X" in appropriate box(es).

Relationship of the Discharge to a SWMU or PRS:

The fire suppression water mixture and potable water flowed to SWMU 03-013(a)-00, which includes storm drains around the NSSB and TA-3 Administration Buildings and into a drainage area east of the new parking structure at TA-3-261 Otowi Complex near University House. Based on observations at the release site, the release did not appear to cause any erosion or movement of sediment within the boundaries of the SWMU.

Discharge Occurred:	<u>12/18/2006 ~2:00 p.m.</u>	Discharge Discovered:	<u>12/18/2006 ~2:00 p.m.</u>	Discharge Stopped:	<u>12/18/2006 ~2:10 p.m.</u>
	Date & Time		Date & Time		Date & Time
Cleanup Started:	<u>12/18/2006 2:00 p.m.</u>	Cleanup Completed:	<u>12/18/2006 5:00 p.m.</u>		
	Date & Time		Date & Time		

Material(s) Released / Discharged:

Fire suppression water. The fire suppression water was composed of a mixture of 30% propylene glycol (see attached MSDS) and 70% potable water. The propylene glycol and potable water mixture released for a short period of time, while the majority of the material released was potable water. An estimated 30 gallons of propylene glycol and 600 gallons of potable water was released to the environment.

Release/Discharge Mitigation Method:

None of the fire suppression water could be recovered because it flowed into a nearby storm drain.

Weather Conditions:

Cold and clear.

Duration of Release/ Discharge, in HOURS:	<u>.17</u>	Est. Volume Released/ Discharged, in gallons.	<u>630</u>	Est. Volume Recovered, in gallons.	<u>0</u>
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Corrective Actions Taken (ie, type of BMPs, etc):

ENV-RCRA personnel assessed the release site to identify potential impacts. There did not appear to be any erosion impacts. Facility representatives will implement BMPs to ensure vehicles are aware of clearance limits at TA-3-38 portal. The dumpster will be relocated to a location where dumpster pick-up vehicles will not need to drive under the portal for waste removal. The fire suppression system was repaired and re-activated at ~5:00 p.m. on 12/18/2006.

Nearest Watercourse (Canyon Name) Sandia Canyon

If the release/discharge reached a watercourse, describe the estimated surface area affected, presence of release/discharge now in the watercourse, and the media the release/discharge was detected in:

The fire suppression water flowed to pavement, a storm drain, and ultimately into upper Sandia Canyon. Water was observed flowing slowly in the natural drainage of upper Sandia Canyon. No erosion impacts were observed in the drainage channels and watercourse.

Depth to Groundwater, in FT, if known:

Distance to Nearest Drinking Water Well, in FT, if known: Well ID#

24-HOUR RELEASE / DISCHARGE NOTIFICATIONS

	Contact Person	Phone	Fax	Date & Time (or Comment)	
EPA:	Sonia Halt	214-665-7490	214-865-2188	12/22/2006	7 and 15 Day Report
NMED/SWQB:	Richard Powell	827-2798	827-0160	12/18/2006	3:50 p.m. verbal
NMED/GWQB:	Chris Vick	827-0078	827-2965	12/18/2006	3:55 p.m. verbal
NMED/HRMB:	Steven Connolly	476-6000	476-6030	12/18/2006	3:45 p.m. verbal
NMED/DOE-OB:	Steve Yanicak	672-0448	672-0466	12/22/2006	7 and 15 Day Report
ENV-RCRA:	Mark Haagenstad	665-2014	665-9344	12/22/2006	7 and 15 Day Report
DOE:	Gene Turner	667-5794	505-665-4872	12/22/2006	7 and 15 Day Report
OTHER:	Andrew Erickson	665-2272	667-2630	12/22/2006	7 and 15 Day Report
OTHER:	Alva Sisneros	664-0666	665-6977	12/22/2006	7 and 15 Day Report

Comments: On 12/18/2006, ENV-RCRA's Mark Haagenstad contacted the NMED-HWB Spill Hotline, NMED-SWQB's Rich Powell, and NMED-GWQB's Chris Vick of the release at 3:45 p.m., 3:50 p.m., and 3:55 p.m. respectively. Additionally, on 12/18/2006 at ~4:00 p.m., ENV-RCRA's Mark Haagenstad also notified Patrick Woehrlé (CGA-GAO) and Elmer Torres (CGA-GAO) of the release.

Form Completed By:

7 DAY RELEASE / DISCHARGE ACTIONS

7 Day Notice 7 Day Notice Date: 7 Day Notice By:

Mark "X" when done.

Comments: No further actions anticipated. The Laboratory will request administrative closure pursuant to 20.6.2.1203 NMAC of the NMWQCC Regulations.

15 DAY RELEASE / DISCHARGE ACTIONS

15 day Follow-up Due: 15-day Follow-Up By:

Comments: No further actions anticipated. The Laboratory will request administrative closure pursuant to 20.6.2.1203 NMAC of the NMWQCC Regulations.

NMED 30 DAY APPROVAL / DISAPPROVAL

NMED 30 Day Response Date:

Comments:

Edwin Wilmot, Director
Office of Los Alamos Site Operations
Department of Energy
Los Alamos, New Mexico 87544
(505) 667-5105

Tori George, ENV Division Director
Los Alamos National Security, LLC.
Los Alamos National Laboratory
P.O. Box 1663, MS J978
Los Alamos, New Mexico 87544
(505) 667-2211

ESH Internal Notes:

Injuries or Exposure?

Did evacuation occur?

Were facilities or equipment damaged?

Did fire/explosion occur?

Was there a potential for fire/explosion?

Describe any sampling performed during spill cleanup and attach analytical results to this form.

Describe actions taken to prevent recurrence of such a spill.


**Material Safety
Data Sheets**

Division of Facilities Services

DOD Hazardous Material Information (ANSI Format) For Cornell University Convenience Only

PROPYLENE GLYCOL

Section 1 - Product and Company Identification	Section 9 - Physical & Chemical Properties
Section 2 - Composition/Information on Ingredients	Section 10 - Stability & Reactivity Data
Section 3 - Hazards Identification Including Emergency Overview	Section 11 - Toxicological Information
Section 4 - First Aid Measures	Section 12 - Ecological Information
Section 5 - Fire Fighting Measures	Section 13 - Disposal Considerations
Section 6 - Accidental Release Measures	Section 14 - MSDS Transport Information
Section 7 - Handling and Storage	Section 15 - Regulatory Information
Section 8 - Exposure Controls & Personal Protection	Section 16 - Other Information

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Section 1 - Product and Company Identification PROPYLENE GLYCOL

Product Identification: PROPYLENE GLYCOL

Date of MSDS: 03/24/1993 Technical Review Date: 01/23/1996

FSC: 6505 NIIN: 00-138-4150

Submitter: F BT

Status Code: C

MFN: 01

Article: N

Kit Part: N

Manufacturer's Information

Manufacturer's Name: SPECTRUM CHEMICAL MFG CORP

Post Office Box: N/K
Manufacturer's Address1: 14422 S SAN PEDRO STREET
Manufacturer's Address2: GARDENA, CA 90248-9985
Manufacturer's Country: US
General Information Telephone: 310-516-8000
Emergency Telephone: 310-516-8000
Emergency Telephone: 310-516-8000
MSDS Preparer's Name: N/P
Proprietary: N
Reviewed: Y
Published: Y
CAGE: 63415
Special Project Code: N

Item Description

Item Name: PROPYLENE GLYCOL,USP
Item Manager:
Specification Number: NK
Type/Grade/Class: NK
Unit of Issue: BT
Unit of Issue Quantity: 1
Type of Container:

Preparer Information

Preparer's Name: SPECTRUM CHEMICAL MFG. CORP.
Preparer's Address1: 14422 SOUTH SAN PEDRO STREET
Preparer's Address2: GARDENA, CA 90248-2027
Preparer's CAGE: 63415
Assigned Individual: N

Contractor Information

Contractor's Name: SPECTRUM CHEMICAL MFG. CORP.
Contractor's Address1: 14422 SOUTH SAN PEDRO STREET
Contractor's Address2: GARDENA, CA 90248-2027
Contractor's Telephone: 310-516-8000
Contractor's CAGE: 63415

Section 2 - Composition/Information on Ingredients
PROPYLENE GLYCOL

Ingredient Name: 1,2-PROPANEDIOL (PROPYLENE GLYCOL)
Ingredient CAS Number: 57-55-6 Ingredient CAS Code: M
RTECS Number: TY2000000 RTECS Code: M
=WT: =WT Code:
=Volume: =Volume Code:
>WT: >WT Code:
>Volume: >Volume Code:
<WT: <WT Code:

<Volume: <Volume Code:
 % Low WT: % Low WT Code:
 % High WT: % High WT Code:
 % Low Volume: % Low Volume Code:
 % High Volume: % High Volume Code:
 % Text: 100
 % Enviromental Weight:
 Other REC Limits: N/K
 OSHA PEL: N/K OSHA PEL Code: M
 OSHA STEL: OSHA STEL Code:
 ACGIH TLV: N/K ACGIH TLV Code: M
 ACGIH STEL: N/P ACGIH STEL Code:
 EPA Reporting Quantity:
 DOT Reporting Quantity:
 Ozone Depleting Chemical: N

Section 3 - Hazards Identification, Including Emergency Overview
PROPYLENE GLYCOL

Health Hazards Acute & Chronic: SKIN: MILD IRRITATION, DERMATITIS, ERYTHEMATOUS EDEMATO
 PLAQUES, CNS DEPRESSION. INGESTION: 60 ML WILL CAUSE REVERSIBLE CNS DEPRESSION.
 POISONING MAY AFFECT THE CNS & KIDNEYS.

Signs & Symptoms of Overexposure:

HEADACHE, NAUSEA, DULLNESS, IRRITATION, REDNESS, ALLERGIC REACTIONS, STINGING,
 PHARYNGOSPASM, LACRIMATION, MILD TRANSIENT CONJUNCTIVAL HYPEREMIA, ABDOMINAL
 SPASMS, VOMITING, UNCONSCIOUSNESS, STUPOR, TACHYPNEA, TACHYCARDIA, DIAPHORESIS,
 SEIZURES

Medical Conditions Aggravated by Exposure:

N/K

LD50 LC50 Mixture: ORAL LD50(RAT): 20 GM/KG

Route of Entry Indicators:

Inhalation: NO

Skin: YES

Ingestion: YES

Carcinogenicity Indicators

NTP: NO

IARC: NO

OSHA: NO

Carcinogenicity Explanation: NONE

Section 4 - First Aid Measures
PROPYLENE GLYCOL

First Aid:

INHALATION: REMOVE TO FRESH AIR. GIVE CPR AS NEEDED. KEEP WARM/AT REST. SKIN: WASH W/ SOAP/MILD DETERGENT/LARGE AMOUNTS OF WATER FOR 15-20 MINS. EYES: WASH W/LARGE AMOUNTS OF WATER/NORMAL SALINE FOR 15 -20 MINS. INGESTION: IF CONSCIOUS & NOT CONVULSING, REMOVE BY THOROUGH GASTRIC LAVAGE. IF IMMEDIATE GASTRIC LAVAGE CAN'T BE ACCOMPLISHED, INDUCE EMESIS W/SYRUP OF IPECAC. (SEE SUPP)

Section 5 - Fire Fighting Measures
PROPYLENE GLYCOL

Fire Fighting Procedures:

WEAR SCBA W/FULL FACEPIECE & OPERATED IN PRESSURE DEMAND MODE/POSITIVE PRESSURE MODE.

Unusual Fire or Explosion Hazard:

MOVE CONTAINERS SAFELY. DON'T SCATTER SPILLED MATERIAL W/HIGH-PRESSURE WATER STREAMS. DIKE FIRE-CONTROL WATER FOR LATER DISPOSAL. AUTOIGNITION TEMP: 700F.

Extinguishing Media:

DRY CHEMICAL, CO2, WATER SPRAY/ALCOHOL-RESISTANT FOAM. LARGE FIRES: WATER SPRAY, FOG/ALCOHOL-RESISTANT FOAM.

Flash Point: Flash Point Text: 210F

Autoignition Temperature:

Autoignition Temperature Text: N/A

Lower Limit(s): 2.6

Upper Limit(s): 12.5

Section 6 - Accidental Release Measures
PROPYLENE GLYCOL

Spill Release Procedures:

STOP LEAK W/O RISK. SMALL: TAKE UP W/SAND/OTHER ABSORBENT MATERIAL & PLACE INTO CLEAN, DRY CONTAINERS FOR LATER DISPOSAL. KEEP UNNECESSARY PEOPLE AWAY. ISOLATE HAZARD AREA & DENY ENTRY.

Section 7 - Handling and Storage
PROPYLENE GLYCOL

Handling and Storage Precautions:

Other Precautions:

Section 8 - Exposure Controls & Personal Protection
PROPYLENE GLYCOL

Respiratory Protection:

THE SPECIFIC RESPIRATOR SELECTED MUST BE BASED ON CONTAMINATION LEVELS FOUND IN WORK PLACE, IT MUSTN'T EXCEED WORKING LIMITS OF THE RESPIRATOR & MUST BE JOINTLY APPROVED BY NIOSH/MSHA. WEAR A SCBA W/FULL FACEPIECE IN POSITIVE PRESSURE MODE.

Ventilation:

LOCAL EXHAUST VENTILATION.

Protective Gloves:

REQUIRED

Eye Protection: SPLASH-PROOF/DUST RESISTANT GOGGLES

Other Protective Equipment: EYE WASH FOUNTAIN, IMPERVIOUS PROTECTIVE CLOTHING & EQUIPMENT.

Work Hygienic Practices: REMOVE/LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

Supplemental Health & Safety Information: FIRST AID CONT'D: OBTAIN MEDICAL ATTENTION IN ALL CASES. NO SPECIFIC ANTIDOTE.

**Section 9 - Physical & Chemical Properties
PROPYLENE GLYCOL**

HCC:

NRC/State License Number:

Net Property Weight for Ammo:

Boiling Point: Boiling Point Text: 370-372F

Melting/Freezing Point: Melting/Freezing Text: -75F

Decomposition Point: Decomposition Text: N/K

Vapor Pressure: <0.1 Vapor Density: 2.62

Percent Volatile Organic Content:

Specific Gravity: 1.0361

Volatile Organic Content Pounds per Gallon:

pH: N/K

Volatile Organic Content Grams per Liter:

Viscosity: N/P

Evaporation Weight and Reference: (BU AC =1): 0.005

Solubility in Water: COMPLETE

Appearance and Odor: ODORLESS, CLEAR, COLORLESS, HYGROSCOPIC, VISCOUS LIQUID W/SLIGHTLY ACID TASTE

Percent Volatiles by Volume: N/K

Corrosion Rate: N/K

**Section 10 - Stability & Reactivity Data
PROPYLENE GLYCOL**

Stability Indicator: YES

Materials to Avoid:

STRONG OXIDIZERS/CHLORIDES, CHLOROFORMATES, METALS, OXIDIZERS, PLASTICS, REDUCING AGENTS, DIETHYL ALUMINUM BROMIDE.

Stability Condition to Avoid:

HEAT, SPARKS, OPEN FLAME, MOISTURE

Hazardous Decomposition Products:

TOXIC OXIDES OF CARBON.

Hazardous Polymerization Indicator: NO

Conditions to Avoid Polymerization:

N/K

**Section 11 - Toxicological Information
PROPYLENE GLYCOL**

Toxicological Information:

N

Section 12 - Ecological Information
PROPYLENE GLYCOL

Ecological Information:

Section 13 - Disposal Considerations
PROPYLENE GLYCOL

Waste Disposal Methods:
DISPOSE OF IAW/FEDERAL, STATE & LOCAL REGULATIONS.

Section 14 - MSDS Transport Information
PROPYLENE GLYCOL

Transport Information:
N/P

Section 15 - Regulatory Information
PROPYLENE GLYCOL

SARA Title III Information:
N/P
Federal Regulatory Information:
N/P
State Regulatory Information:
N/P

Section 16 - Other Information
PROPYLENE GLYCOL

Other Information:
N/P

HAZCOM Label Information

Product Identification: PROPYLENE GLYCOL
CAGE: 63415
Assigned Individual: N
Company Name: SPECTRUM CHEMICAL MFG. CORP.
Company PO Box:
Company Street Address1: 14422 SOUTH SAN PEDRO STREET
Company Street Address2: GARDENA, CA 90248-2027 US
Health Emergency Telephone: 310-516-8000
Label Required Indicator: Y
Date Label Reviewed: 12/16/1998
Status Code: C
Manufacturer's Label Number:
Date of Label: 12/16/1998
Year Procured: N/K
Organization Code: G
Chronic Hazard Indicator: N/P
Eye Protection Indicator: N/P
Skin Protection Indicator: N/P