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Northwest Enviroservice Inc.

April 10, 1989

Regional Administrator
ENVIRONMENTAL PROTECTION AGENCY
Region 10
1200 - 6th Avenue
Seattle, WA 98101

Subject: Ammendment of Letter dated October 24, 1988
Demonstration for Soft Hammer Waste
Per 40 CFR 268.8(a)(2) - U and P Listed Waste

Please ammend the above referenced letter for demonstration of soft hammer waste.

This letter is being submitted for the U and P wastes listed below. The most practically available treatment which utilized the most environmentally beneficial option was considered prior to a disposal option being selected.

The disposal options took into account: environmental benefit; disposal cost; disposal availability; transportation cost; environmental safety due to lengthy transportation routes; and, the disposal hierarchy as follows:

1) Reuse
2) Reduction
3) Recycling
4) Energy Recovery
5) Physical and Chemical Treatment
6) Incineration
7) Stabilization
8) Landfilling

R = RECYCLE
ER = ENERGY RECOVERY
T = TREATMENT
I = INCINERATION
S = STABILIZATION

268.32(a) Wastes:

I P001 - WARFARIN (>0.3%)
I - P004 - ALDRIN
S - P005 - ALLYL ALCOHOL
T - P010 - ARSENIC ACID
T - P011 - ARSENIC (V) OXIDE
T - P012 - ARSENIC (III) OXIDE
S - P015 - BERYLLIUM DUST
I - P016 - BIS-(CHLOROMETHYL) ETHER
S - P018 - BRUCINE
I - P020 - DINOSEB
T - P030 - SOLUBLE CYANIDE SALTS (NOT ELSEWHERE SPECIFIED)
I - P036 - DICHLOROPHENYLARSINE
I - P037 - DIELDRIN
I - P039 - DISULFOTON
I - P041 - DIETHYL-P-NITROPHENYL PHOSPHATE
I-ER - P046 - 2,4 DINITROPHENOL
I - P050 - ENDOSULFAN
T - P058 - FLUOROACETIC ACID SODIUM SALT
I - P059 - HEPTACHLOR
T - P063 - HYDROGEN CYANIDE
T-S - P068 - METHYL HYDRAZINE
I-ER - P069 - METHYLLACTONITRILE
I - P070 - ALDICARB
I - P071 - METHYL PARATHION
NONE - P081 - NITROGLYCERINE
I - P082 - N-NITROSODIMETHYLAMINE
I - P084 - N-NITROSOMETHYLVINYLAMINE
T - P087 - OSMIUM TETRAOXIDE
I - P089 - PARATHION
I - P092 - PHENYLMERCURIC ACETATE
I - P094 - PHORATE
I - P097 - FAMPHUR
I-ER - P102 - PROPARGYL ALCOHOL
T-S - P103 - SODIUM AZIDE
S - P108 - STRYCHNINE AND SALTS
I - P110 - TETRAETHYL LEAD
T - P113 - THALLIUM (I) SULFATE
T - P120 - VANADIUM PENTOXIDE
T-I - P122 - ZINC PHOSPHIDE (>10%)
I - P123 - TOXAPHENE

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[illegible]

S - U007 - ACRYLAMIDE
I - U009 - ACRYLONITRILE
U010 - MITOMYCIN C
I-S - U012 - ANILINE
S - U016 - BENZ(c)ACRIDINE
S - U018 - BENZ(a)ANTHRACENE
I-ER - U019 - BENZENE
S - U022 - BENZO(a)PYRENE
I - U029 - METHYL BROMIDE
ER - U031 - n-BUTANOL
I - U036 - CHLORDANE, TECHNICAL
I - U037 - CHLOROBENZENE
I - U041 - n-CHLORO-2,3-EPOXYPROPANE
I - U043 - VINYL CHLORIDE
I - U044 - CHLOROFORM
I - U046 - CHLOROMETHYL METHYL ETHER
S - U050 - CHRYSENE
I-S - U051 - CREOSOTE
U053 - CROTONALDEHYDE
I - U061 - DDT
S - U063 - DIBENZ O (a,h) ANTHRACENE
S - U064 - 2,3:7,8 DIBENZOPYRENE
I - U066 - DIBROMO-3-CHLOROPROPANE 1,2-
I - U067 - ETHYLENE DIBROMIDE
I - U074 - 1,4-DICHLORO-2-BUTENE
R-I - U077 - ETHANE, 1,2-DICHLORO-
R-I - U078 - DICHLOROETHYLENE,1,1-
I-ER - U086 - N,N DIETHYLHYDRAZINE
I-S - U089 - DIETHYLSTILBESTROL
I-S - U103 - DIMETHYL SULFATE
I-ER - U105 - 2,4-DINITROTOLUENE
ER - U108 - DIOXANE, 1,4-
I-S - U115 - ETHYLENE OXIDE
I - U122 - FORMALDEHYDE
ER - U124 - FURAN
I - U129 - LINDANE
I - U130 - HEXACHLOROCYCLOPENTADIENE
T-S - U133 - HYDRAZINE
T - U134 - HYDROFLUORIC ACID
S - U137 - INDENO (1,2,3-cd)PYRENE
R - U151 - MERCURY
R-ER - U154 - METHANOL
I - U155 - METHAPYRILENE
I - U157 - 3-METHYLCHOLANTHRENE
S - U158 - 4,4-METHYLENE-BIS-(2-CHLOROANILINE)
R-ER - U159 - METHYL ETHYL KETONE
U171 - NITROPROPANE, 2-
I-S - U177 - N-NITROSO-4-METHYLUREA
S - U180 - N-NITROSOPYRROLIDINE
I - U185 - PENTACHLORONITROBENZENE
I - U188 - PHENOL
I - U192 - PRONAMIDE
I - U200 - RESERPINE
R-I - U209 - TETRACHLOROETHANE, 1,1,2,2-
R-I - U210 - TETRACHLOROETHYLENE
I - U211 - CARBON TETRACHLORIDE
S - U219 - THIOUREA
R-ER - U220 - TOLUENE
I-ER - U221 - TOLUENEDIAMINE
S - U223 - TOLUENE DIISOCYANATE
R-I - U226 - METHYLCHLOROFORM
R-I - U227 - TRICHLOROETHANE, 1,1,2-
R-I - U228 - TRICHLOROETHYLENE
I - U237 - URACIL MUSTARD
I - U238 - ETHYL CARBAMATE
S - U248 - WARFARIN (≤0.3%)
T-I - U249 - ZINC PHOSPHIDE ≤10%)

The facilities contacted are listed below along with facility officials, addresses, telephone numbers and contact dates.

Washington Chemical
P.O. Box 743
Spokane, WA 99201
(509)489-9176

January 10, 1989
Mr. Don Herron

The following U listed solvents will be sent for recycling when the following codes are added to Washington Chemical's Part B Permit. Currently they are limited to these solvents as F-listed.

U019, U031, U077, U078, U086, U105, U108, U124, U154, U159, U209, U210, U220, U226, U227, U228

Baron Blakeslee
5920 NE 87th
Portland, OR 97220
(503)252-3468

October 14, 1988
Lou Dorsey

The following U listed solvents will be sent for recycling.

U226, U227, U228, U209

Mercury Refining Company, Inc.
Railroad Avenue
Albany, NY 12205
1-800-833-3505

January 11, 1988
Dennis Durakowski

The following will be Recycled:

U151

Systech Corporation
23505 Crenshaw Blvd, #201
Torrance, CA 90505
(213)325-2800

January 13, 1989
Mike Zimmer

When in unacceptable size for recycling, the following U's will be burned for Energy Recovery:

U031, U086, U105, U124, U154, U159, U019, U220, U221.

Northwest EnviroService, Inc.
1500 Airport Way S.
Seattle, WA 98134
(206)622-1090

August 8, 1988
Mike Clark

The following U's and P's will be treated by physical or chemical means to detoxify. These are chemicals which have no reuse potential but may be beneficial in the neutralization or detoxification of other hazardous waste resulting in less virgin chemicals being purchased and, therefore, produced.

P005, P010, P011, P012, P087, P122, U133, U134

Rollins Environmental
1781 Fox Drive
San Jose, CA 95131
(408)437-9770

March 3, 1989
Pat McGrath

Ensco
333 Executive Court
Little Rock, AR 72705
(501)223-4100

January 11, 1989
Mildred Mott

Incineration will be utilized as the most environmental safe way of destroying compounds that have not been recycled or detoxified. The following compounds will be blended and bulked into a solvent blend that has BTU value which will reduce the amount of virgin energy consumed at the incinerator.

P001, P004, P016, P020, P036, P037, P039, P041, P048, P050, P059, P069, P070, P071, P082, P084, P087, P089, P092, P094, P097, P102, P110, P122, P123,
U009, U012, U019, U029, U036, U037, U041, U043, U044, U046, U051, U061, U066, U067, U074, U077, U078, U086, U089, U103, U105, U115, U122, U129, U130, U155, U157, U177, U185, U188, U192, U200, U209, U210, U211, U221, U226, U227, U228, U237, U238, U248

Chem-Security Systems
Star Route
Arlington, OR 97812
(503)454-2643

November 13, 1988
Tom Condon

The following items will be stabilized and/or treated prior to landfilling to reduce their toxicity or in labpack form.

F007, F009, F019, P015, P013, P105, P108, U016, U013, U022, U050, U051, U158, U219, U223

Envirosafe Services of Idaho
P.O. Box 417
Boise, ID 83701
(208)384-1500

October 20, 1988
Dennis McLaughlin

The following items will be stabilized and/or treated prior to landfilling to reduce their toxicity or in labpack form.

F007, F009, F019, P015, P018, P108, U016, U018, U022, U050, U051, U158, U219, U223

Romic Chemical Corporation
2081 Bay Road
E. Palo Alto, CA 94303
(415)324-2965

March 18, 1989
Steve Ansley

The following U listed solvents will be sent for recycling.

U210, U226, U227, U228

All First Third U and P listed waste that is a spill residue in soil, clean-up with absorbant, and empty previous contents containers of P listed waste may be landfilled based on the cost ratio below.

Average Incineration Cost	per pound		
Transportation Cost	per pound	=	per pound
Average Landfill Cost	per pound		
Transportation Cost	per pound	=	per pound

Incineration is 4.58 times as expensive as landfilling and, therefore, not economically practical.

CERTIFICATION STATEMENT FOR
LANDFILL ITEMS WHICH HAVE BEEN EVALUATED:

I certify under penalty of law that the requirements of 40 CFR 268.3(a)(1) have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

[illegible]	V.P. Environmental Affairs	4-10-89
Signature	Title	Date

CERTIFICATION STATEMENT FOR
RECYCLING, ENERGY RECOVERY AND INCINERATION:

I certify under penalty of law that the requirements of 40 CFR 268.3 (a)(1) have been met and that I have contracted to treat my waste (or will otherwise provide treatment) by the practically available technology which yields the greatest environmental benefit as indicated in my demonstration. I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

[illegible]	V.P. Environmental Affairs	4-10-89
Signature	Title	Date

CERTIFICATION STATEMENT FOR
TREATMENT AT NORTHWEST ENVIROSERVICE, INC.:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 40 CFR Part 268 Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA section 3004(d) without dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

[illegible]	V.P. Environmental Affairs	4-10-89
Signature	Title	Date

PROPOSED

NORTHWEST ENVIROSERVICE, INC.

LAND DISPOSAL RESTRICTION NOTIFICATION

Effective June 8, 1989
40 CFR 268.34

The 2nd Third wastes and the 1st Third wastes that had no treatment standards.

1. LAND DISPOSAL PROHIBITED FOR THESE FIRST THIRD WASTES:

Effective June 8, 1989.

F006 (cyanide), F007, F008, F009, F019
K004, K008, K011, K013, K014
P030, P039, P041, P063, P071, P089, P094, P097
U221, U223

2. LAND DISPOSAL PROHIBITED:

Prohibited effective June 8, 1989 but may be landfilled until June 8, 1991, in landfills that are in compliance with 40 CFR 264.301(c)(d) and (e).

F010, F011, F012, F024
K009, K010, K022, K027, K028, K029, K038, K039, K040, K043, K093, K094, K113, K114, K115, K116
Non-waste waters of: K002, K003, K005, K006, K007, K029, K095, K096
P013, P021, P029, P030, P039, P040, P041, P043, P044, P062, P071, P074, P085, P089, P094, P097, P098, P099, P104, P106, P109, P111, P121
U028, U058, U069, U087, U088, U102, U107, U190, U221, U223, U235

3. SECOND THIRD INCINERATION TREATMENT - SOIL AND DEBRI:

Waste in the 2nd Third that requires incineration as a treatment and are contaminated soil and debris may be landfilled until June 8, 1991.

See specific treatment: Standard 268.41, Technology 268.42, Concentrations 268.43.

OCT 1989
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