ATTACHMENT 1

WASTE ANALYSIS PLAN

3. General Waste Analysis (Permit Condition II.B)

This section addresses the following permit application information:

- Hazardous Waste Specification of COMAR 26.13.07.02D(14),
- Waste Chemical and Physical Analysis of COMAR 26.13.07.02D(16), and
- Waste Analysis Plan of COMAR 26.13.07.02D(17).

3.1. Hazardous Waste Specification

This section addresses the permit application information of COMAR 26.13.07.02D(14), which requires a specification of the hazardous wastes listed or designated in COMAR 26.13.02 (Identification and Listing of Hazardous Waste) to be treated, stored, or disposed at the facility, an estimate of the quantity of the wastes to be treated, stored, or disposed of annually, and a general description of the processes to be used for the wastes.

The NSA Bethesda is comprised of a hospital, numerous research laboratories, and small-scale industrial shops. Extensive varieties of ongoing medical and medical research activities, designed to meet dynamic objectives, generate most classes of hazardous waste. Table 3-1 lists types and amounts of hazardous wastes generated at this facility in calendar year 2015. Based on historical waste management experience, Table 3-2 lists other hazardous wastes typically generated at NSA Bethesda.

The following hazardous waste categories, listed in COMAR 26.13.02, may be managed at NSA Bethesda:

1. D001 - D011, D018 - D022, and D025-D043
2. F001 - F005 and F027
3. P001,P008, P011, P012, P014, P015, P022, P030, P033, P042, P043, P047, P048, P072, P077, P087, P089, P098, P105, P106, P108, P116, P120
4. U001 - U004, U006 - U010, U012, U019, U021, U031, U035,U037, U044, U045, U052, U055 - U058, U069 - U072, U075 - U077, U080, U102, U103, U108, U112, U115, U117, U119, U121 - U124, U133, U136, U138, U140, U150,U151, U154, U162, U163, U165, U170, U185, U188, U196, U200, U206, U211, U213, U220, U226, U227, U236, U246, U247, U326,U328
5. M001
6. MT01
7. MX01

NSA Bethesda is renewing the Part B Application to manage these wastes in Building 256. No hazardous wastes will be treated on site, but will be stored until proper disposal arrangements are implemented. NSA Bethesda will not accept any hazardous waste generated off-site.

NSA Bethesda has managed PCB wastes in compliance with Federal TSCA Regulations and Maryland CHS Regulations. Samples of hydraulic oil in the machines and elevators at NSA Bethesda have been analyzed for PCBs. A program to remove all fluorescent lights known to

contain PCBs, and those which are not labeled PCB-free, is ongoing, and is expected to generate some small amount of PCB-wastes to be managed through Building 256.

Table 3-1

Typical Types and Quantities of Wastes Generated at NSA Bethesda Based on 2015 Hazardous Waste Generator Report

Waste Description	Quantity Generated (lbs.)	EPA Hazardous Waste Code	EPA Form Code
Spent Solvents, Halogenated	3	F001 - Halogenated solvents F002 - Halogenated solvents	**W202 - Organic Liquid:** Concentrated halogenated (e.g., chlorinated) solvent
Spent Solvents, Non-Halogenated	6,552	F003 - Non-halogenated solvents D001 - Ignitables D022 - Chloroform D038 - Pyridine	**W203 - Organic Liquid:** Concentrated non-halogenated (e.g., non-chlorinated) solvent
Spent Acids	774	D002 - Corrosives	**W105 - Inorganic Liquid:** Acidic aqueous wastes less than 5% acid (diluted but pH<2)
Spent Alcohols	17,480	D001 - Ignitables	**W203 - Organic Liquid:** Concentrated non-halogenated (e.g., non-chlorinated) solvent
Discarded Ignitable Liquids	3,223	D001 - Ignitables D002 - Corrosives D022 - Chloroform	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste
Discarded Ignitable Solids	5	D001 - Ignitables	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste

Table 3-1

Typical Types and Quantities of Wastes Generated at NSA Bethesda Based on 2015 Hazardous Waste Generator Report

Waste Description	Quantity Generated (lbs.)	EPA Hazardous Waste Code	EPA Form Code
Discarded Corrosive Liquids	471	D002 - Corrosives D009 - Mercury D005 - Barium	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste
Discarded Reactive Liquids	1	D003 - Reactives D001 - Ignitables	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste
Discarded Reactive Solids	3	D001 - Ignitables D003 - Reactives	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste
Discarded Oxidizers	308	D001 - Ignitables D002 - Corrosives D011 - Silver D007 - Chromium	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste
Discarded Toxicity Characteristic Liquids	5,448	D022 - Chloroform D038 - Pyridine D007 - Chromium D011 - Silver D009 - Mercury	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste

Table 3-1

Typical Types and Quantities of Wastes Generated at NSA Bethesda Based on 2015 Hazardous Waste Generator Report

Waste Description	Quantity Generated (lbs.)	EPA Hazardous Waste Code	EPA Form Code
Discarded Toxicity Characteristic Solids	452	D011 - Silver D007 - Chromium D022 - Chloroform D009 - Mercury D005 - Barium D008 - Lead D004 - Arsenic D006 - Cadmium	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste
Discarded U-Listed Liquids	235	U080 - Dichloromethane U188 - Phenol U122 - Formaldehyde D001 - Ignitables U031 - n-Butyl Alcohol U112 - Ethyl Acetate U019 - Benzene U220 - Toluene U007 - Acrylamide U123 - Formic Acid D002 - Corrosives U236 - Trypan Blue U154 - Methanol U226 - 1,1,1-Trichloroethane U003 - Acetonitrile U211 - Tetrachloromethane U044 - Chloroform U117 - Ethyl Ether	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste

Table 3-1

Typical Types and Quantities of Wastes Generated at NSA Bethesda Based on 2015 Hazardous Waste Generator Report

Waste Description	Quantity Generated (lbs.)	EPA Hazardous Waste Code	EPA Form Code
		U002 - Acetone U010 U035 U058 U150 U206	
Discarded U-Listed Solids	5	U188 - Phenol U236 - Trypan Blue U246 - Cyanogen Bromide U170 - 4-Nitrophenol U007 - Acrylamide U123 - Formic Acid	**W001 - Mixed Media/Debris/Devices:** Lab packs from any source **not containing** acute hazardous waste
Discarded P-Listed Liquids	3	P014 - Benzenethiol P087 - Osmium Tetroxide	**W004 - Mixed Media/Debris/Devices:** Lab packs from any source **containing acute** hazardous waste
Discarded P-Listed Solids	40	P014 - Benzenethiol P098 - Potassium Cyanide D003 - Reactives P105 - Sodium Azide	**W004 - Mixed Media/Debris/Devices:** Lab packs from any source **containing acute** hazardous waste

Table 3-1

Typical Types and Quantities of Wastes Generated at NSA Bethesda Based on 2015 Hazardous Waste Generator Report

Waste Description	Quantity Generated (lbs.)	EPA Hazardous Waste Code	EPA Form Code
Site Remediation/Spill Cleanup Waste	820	U122 - Formaldehyde D009 - Mercury D008 - Lead	**W002 - Mixed Media/Debris/Devices:** Contaminated debris: paper, clothing, rags, wood, empty fiber or plastic containers, glass, piping, other solids (usually from construction, demolition, cleaning, or remediation)
Off Spec Oil and/or Gasoline Spill Cleanup	835	D001 - Ignitables D018 - Benzene	**W002 - Mixed Media/Debris/Devices:** Contaminated debris: paper, clothing, rags, wood, empty fiber or plastic containers, glass, piping, other solids (usually from construction, demolition, cleaning, or remediation)
Paint Related Items	492	D001 - Ignitables	**W209 - Organic Liquids:** Paint, ink, lacquer, or varnish (fluid - not dried out or sludge)
Aerosol Paint Cans	10	D001 - Ignitables D035 - Methylethylketone	**W209 - Organic Liquids:** Paint, ink, lacquer, or varnish (fluid - not dried out or sludge)
Discarded Compressed Gases	186	D001 - Ignitables	**W801 - Mixed Media/Debris/Devices:** Compressed gasses of any type
Toxic Aerosols	370	U075 - Dichlorodifluoromethane	**W204 - Organic Liquids:** Concentrated halogenated/non-halogenated solvent mixture

Table 3-1

Typical Types and Quantities of Wastes Generated at NSA Bethesda Based on 2015 Hazardous Waste Generator Report

Waste Description	Quantity Generated (lbs.)	EPA Hazardous Waste Code	EPA Form Code
Flammable (Non-Paint) Aerosols	200	D001 - Ignitables	**W203 - Organic Liquid:** Concentrated non-halogenated (e.g., non-chlorinated) solvent
Spent Bases	762	D002 - Corrosive	**W001- Mixed Media/Debris/Devices:** Lab packs from any source not containing acute hazardous waste.

While not generated at NSA Bethesda during 2015, the following wastes have been generated in the past and may comprise a portion of the hazardous waste stream in the future:

Table 3-2

Typical Types and Quantities of Wastes Generated at NSA Bethesda, Based on Historical Waste Management Experience

EPA Waste Number	Quantity (lbs)	Waste Description
D010	5	Selenium
D019	25	Carbon Tetrachloride
D020	5	Chlordane
D021	5	Chlorobenzene
D025	11	p-Cresol
D026	5	Cresol
D027	5	1,4 Dichlorobenzene
D028	25	1,2 Dichloroethane
D029	5	1,1-Dichloroethylene
D030	5	2,4-Dinitrotoluene
D031	1	Heptachlor
D032	5	Hexachlorobenzene
D033	5	Hexachlorobutadiene
D034	5	Hexachloroethane
D036	5	Nitrobenzene

Table 3-2

Typical Types and Quantities of Wastes Generated at NSA Bethesda, Based on Historical Waste Management Experience

EPA Waste Number	Quantity (lbs)	Waste Description
D037	5	Pentachlorophenol
D039	1438	Tetrachloroethylene
D040	25	Trichloroethylene
D041	5	2,4,5-Trichlorophenol
D042	5	2,4,6-Trichlorophenol
D043	5	Vinyl Chloride
F004	5	cresols, cresylic acid, nitrobenzene, etc.
F005	13727.5	Toluene, methylethyl ketone
F027	96	Tri-, tetra-, or pentachlorofenol, etc.
P008	5	4-Aminopyridine
P011	5	Arsenic Pentoxide
P012	83	Arsenic trioxide
P015	5	Beryllium dust
P022	5	Carbon disulfide
P030	83	Cyanide salt mixtures, N.O.S.
P033	5	Cyanogen chloride
P042	19	3,4-Dihydroxy-@-(methylamino)-methyl-benzyl alcohol
P043	1	Di-iso-propylfluorophosphate
P047	83	4,6-Dinitro-o-creosol and salts
P048	102	2,4-Dinitrophenol
P072	19	1-Naphthyl-2-thiourea
P077	1	p-Nitroaniline
P089	101.5	Parathion
P106	19	Sodium Cyanide
P108	1	Strychnine and salts
P116	19	Thio semicarbazide
P120	19	Vanadium Pentoxide
U001	10	Acetaldehyde (I)
U004	5	Acetophenone
U006	5	Acetyl Chloride (C, R, T)
U008	5	Acrylic Acid (I)
U009	10	Acrylonitrile

Table 3-2

Typical Types and Quantities of Wastes Generated at NSA Bethesda, Based on Historical Waste Management Experience

EPA Waste Number	Quantity (lbs)	Waste Description
U012	10	Aniline (I, T)
U021	5	Benzidine
U037	5	Chlorobenzene
U045	32.5	Chloromethane (1,T)
U052	162.5	Cresylic Acid
U055	5	Cumene (I)
U056	5	Cyclohexane (I)
U057	283	Cyclohexanone
U069	5	Di-n-butyl phthalate
U070	5	1,2-Dichlorobenzene
U071	5	1,3-Dichlorobenzene
U072	5	1,4-Dichlorobenzene
U076	5	1,1-Dichloroethane
U077	130	Dichloroethane
U102	5	Dimethyl Phthalate
U103	21	Dimethyl Sulfate
U108	283	1,4-Dioxane
U115	21	Ethylene Oxide (1,T)
U119	10	Ethylmethane Sulfonate
U121	150	Fluorotrichloromethane
U124	5	Furan (I)
U133	10	Hydrazine (R, T)
U136	283	Hydroxydimethyl Arsine Oxide
U138	1	Iodomethane
U140	283	Isobutyl Alcohol
U151	32.5	Mercury
U162	162.5	Methyl Methacrylate
U163	32.5	N-methyl-N-nitro-N Nitrosoguanidine
U165	10	Naphthalene
U185	1	Pentachloronitrobenzene
U196	283	Pyridine
U200	1	Reserpine

Table 3-2

Typical Types and Quantities of Wastes Generated at NSA Bethesda, Based on Historical Waste Management Experience

EPA Waste Number	Quantity (lbs)	Waste Description
U213	283	Tetrahydrofuran
U227	32.5	1,1,2-Trichloroethane
U247	10	Methoxychlor
U326	283	Trypan Blue
U328	283	o-Toluidine
MT01	1000	PCBs (50-500 ppm)
MX01	5000	PCB Contaminated Soil >50 ppm COMAR 26.13.02.19D
M001	100	PCBs >500 ppm

3.2. Waste Chemical and Physical Analysis

This section addresses the permit application information of COMAR 26.13.07.02D(16), which requires chemical and physical analyses of the hazardous wastes to be handled at the facility. The analyses must comply with the requirements in COMAR 26.13.05.02D(1). At a minimum, these analyses must be known to treat, store, or dispose of the wastes in accordance with COMAR 26.13.05 (Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities).

During operations, personnel use information provided by this section and by NSA Bethesda's Waste Analysis Plan, Section 3.3, to determine whether a waste is hazardous and consolidate information to properly store the waste in Building 256.

As a medical research and education facility, NSA Bethesda generates a wide variety of hazardous wastes, usually in small quantities. Much of this wastes are outdated laboratory chemicals in the original labeled container. Personnel obtain chemical characteristics directly from the label or from accompanying material safety data sheets.

Another significant portion of NSA Bethesda's waste stream is spent laboratory wastes. EPD personnel rely on the user's knowledge to provide chemical composition of the waste. After this initial identification, EPD personnel obtain waste characteristics, such as the flash point, from Safety Data Sheets (SDS) and reference texts.

Table 3-3 describes typical hazardous wastes, their EPA identification number, their associated hazards, and their chemical and physical characteristics. The table presents information based on labels or SDS for outdated chemicals and on user knowledge and waste characterization for spent lab waste.

Table 3-3. Waste Chemical and Physical Analysis					
Waste Category	**Chemical Constituents**	**Physical Nature**	**EPA Waste Number**	**Hazard Characteristic**	**Basis for Hazard Designation (F.P. = Flash Point)**
Acids (Inorganic)	Arsenic acid	Clear liquid	P010	Acute Hazardous Waste, Corrosive	pH < 2.0
	Boric Acid	Clear liquid	D002	Corrosive	pH < 2.0
	Hydrochloric acid	Clear liquid	D002	Corrosive	pH < 2
	Hydrofluoric acid	Clear liquid	D134	Corrosive, Toxic	pH < 2.0
	Nitric acid	Clear liquid	D002	Corrosive	pH < 2.0
	Phosphoric acid	Clear liquid	D002	Corrosive	pH < 2.0
	Sulfuric acid	Clear liquid	D002	Corrosive	pH < 2.0
Acids (Organic)	Acetic acid	Clear liquid	D002	Corrosive	pH < 2.0
	Picric acid	Clear liquid (yellow crystals)	D003	Reactive	Shock sensitive
Alcohols	Butanol	Clear liquid	D001	Ignitable	F.P. = 95°F
	Ethanol	Clear liquid	D001	Ignitable	F.P. = 55°F
	Methanol	Clear liquid	U154	Ignitable	F.P. = 54°F
Alkalines	Ammonium hydroxide	Clear liquid	D002	Corrosive	pH > 12.5
	Ethanolamine	Clear liquid	D002	Corrosive	pH < 2.0
	Hydrazine	Clear, fuming liquid	U133	Toxic	Known carcinogen
	Potassium hydroxide	Clear liquid	D002	Corrosive	pH > 12.5
	Sodium hydroxide	Clear liquid	D002	Corrosive	pH > 12.5
Cyanides	Potassium cyanide	White powder	P098	Acute Hazardous Waste	Toxic
	Sodium cyanide	White powder	P106	Acute Hazardous Waste	Toxic

Table 3-3. Waste Chemical and Physical Analysis

Waste Category	Chemical Constituents	Physical Nature	EPA Waste Number	Hazard Characteristic	Basis for Hazard Designation (F.P. = Flash Point)
Flammable Liquids	Acetone	Clear liquid	U002	Ignitable	F.P. = 15°F
	Benzene	Clear liquid	U019, P108, F005	Toxic, Ignitable	Toxicc, Ignitable
	Ether	Clear liquid	U117, D001, F003	Ignitable	F.P. = -49°F
	Hexane	Clear liquid	D001	Ignitable	F.P. = -90°F
	Toluene	Clear liquid	F005, U220	Toxic, Ignitable	F.P. = 39°F
	Xylene	Clear liquid	F003, U239	Ignitable	F.P. = 84°F
Halogenated Hydrocarbons	Carbon tetrachloride	Clear liquid	U211, D019, F001 (degreasing)	Toxic	Toxic
	Chloroform	Clear liquid	D022, U044	Toxic	Toxic
	Dichloromethane	Clear liquid	U080	Toxic	Toxic
	Trichloroethane	Clear liquid	F002	Toxic	Toxic
	Tetrachloroethylene	Clear liquid	D039, F001, F002, U210	Toxic	Toxic
Nitrated Hydrocarbons	Cellulose nitrate	Cotton-like solid	D001	Ignitable	Ignitable
	Dimethyl formamide	White liquid	D001	Ignitable	F.P. = 136°F
	Nitro aniline	Yellowish crystals	D003	Reactive	Reactive
	Pyridine	Yellowish liquid	U196	Toxic	Toxic by ingestion
Oxidizers	Hydrogen peroxide	Aqueous solution	D001	Oxidizer	Oxidizer
	Perchloric acid	Clear liquid	D001	Oxidizer	Oxidizer
	Potassium dichromate	Yellowish red crystals	D001	Oxidizer	Oxidizer
	Potassium permanganate	Purple solid	D001	Oxidizer	Oxidizer

3.3. Waste Analysis Plan

This section addresses COMAR 26.13.07.02D(17), which requires a waste analysis plan as specified in COMAR 26.13.05.02D (General Waste Analysis). The Waste Analysis Plan must comply with the requirements in COMAR 26.13.05.02D(2).

NSA Bethesda is a medical, research, and educational facility, which generates a variety of hazardous wastes. Once generated, environmental program department (EPD) personnel transport the waste to Building 256, the hazardous waste storage facility. It is stored there until a sufficient quantity is accumulated for transport to an off-site disposal facility. *Hazardous wastes are not treated at NSA Bethesda.*

The Waste Analysis Plan describes objectives and operating procedures as well as provides details on waste classification, sampling methods for unknowns, analytical methods and frequency, and quality assurance. The Waste Analysis Plan will be stored at the EPD and copies made available at other facility sites, as appropriate.

3.3.1. Objectives

The waste analysis plan is designed to safely manage hazardous waste and serves to:

1. Determine whether the wastes are hazardous as defined by regulations promulgated by the State of Maryland in implementing the Resource Conservation and Recovery Act (RCRA).
2. Establish compatibility groupings to prevent mixing incompatible wastes.
3. Identify hazard classes as defined by the U.S. Department of Transportation (DOT) enabling proper labeling and shipping procedures for off-site transportation.
4. Provide waste information needed by transporters and disposal facilities treating the waste.

3.3.2. Waste Classification

EPD personnel classify hazardous waste according to the following references:

1. EPA-600/2-80-76, April 1980. Table 2-1, adapted from EPA-600/2-80-76, provides the ten compatibility groups used for hazardous waste storage.
2. DOT Hazard Classes are listed in the Hazardous Materials Table, 49 CFR Part 172, Subpart B.
3. EPA Hazardous Waste Numbers which are listed in 40 CFR and COMAR 26.13.02.15-19.

3.3.3. Waste Characterization

Section 2.2 describes NSA Bethesda's hazardous waste management program. NSA Bethesda generates various types of waste chemicals in original containers because of shelf life expiration. After expiration, personnel define the chemical as a hazardous waste based on the original container's label and safety data sheets (SDSs). Medical research laboratories generate waste by-products during laboratory experiments. User knowledge enables the researcher to characterize and define the waste. Shop activities, such as the carpentry shop, regularly generate industrial wastes. The original user's knowledge and safety data sheets enable personnel to correctly identify the waste.

3.3.4. Unknown Waste Characterization

EPD personnel classify most hazardous waste according to the original user's knowledge. Occasionally, wastes are discovered in unlabeled containers of unknown origin. NSA Bethesda contracts a private environmental laboratory to analyze unknown chemicals, since in-house environmental analytical capabilities are not available.

When an unknown is discovered, personnel use the "Compatibility Tree" (Figure 3-1) to determine the appropriate laboratory analysis for each sample. The sample is collected and sent to the contracted laboratory using standard "chain-of-custody" documentation. Laboratory personnel perform tests to screen for strong acids, strong bases, oxidizers, reducing agents, cyanides, sulfides, water reactive chemicals, flammable liquids, halogenated hydrocarbons, and PCBs. The analytical results enable personnel to define and classify the waste.

Occasionally, personnel are unable to define an unknown waste but can obtain limited information on its characteristics. For example, (1) a waste may be known to be corrosive but its pH is unknown, or (2) a waste can be identified as organic but its flashpoint is unknown. Specific measures taken to characterize ignitable, reactive, or incompatible wastes include gathering information from user knowledge and SDS; then, if necessary, performing field screening tests for pH with a digital pH meter and following up with laboratory analysis.

NSA Bethesda currently has standing agreements with Defense Logistics Agency (DLA) for the analyses of unknown wastes. A 45-day maximum is placed on an analysis, but in an emergency, the identification could be completed with 24-hour turnaround, depending on what analyses are necessary. As soon as an unknown waste is identified, it is accepted into storage and stored in accordance with the compatibility chart in Building 256.

3.3.5. Unknown Waste Sampling Methods

Most unknown waste containers are reagent bottles having a capacity less than 25 liters. These containers are sampled using routine chemistry laboratory techniques such as pipetting aliquots of liquids and using spatulas to spoon several grams of solids.

For drums of unknown liquid wastes, personnel determine whether the liquid is layered or homogeneous. For homogeneous wastes, a small glass tube or pipette is used to sample the portion of the liquid nearest the surface. If layered, a Coliwasa sampler is inserted into the drum, collecting a portion from the entire liquid column. Personnel follow the sampling method, "COLIWASA", as described in "Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods", and in "Samplers and Sampling Procedures for Hazardous Waste Streams", EPA 600/2-80-018, January 1980.

When required, personnel collect solid waste samples according to ASTM Standard D346-75 and ASTM Standard D1452-65 for powdered material and for soil-like material, respectively.

3.3.6. Contract Laboratory Analytical Methods

Contract laboratories will determine ignitability, corrosivity, and reactivity by the EPA methods referenced in COMAR 26.13.02.11 through 26.13.02.13. Analytical methods to be used by an approved analytical laboratory to determine hazardous waste characteristics are outlined in COMAR 26.13.02.21 and 22. Personnel direct the contract laboratories to analyze samples of unknown wastes for waste characteristics. Results of analyses for Toxicity Characteristic Leachate Procedures (TCLP), along with knowledge of the waste from prior users, provide personnel with sufficient information to define the waste.

3.3.7. Analyses Frequency

Since researchers at NSA Bethesda do not produce a continuous process waste stream, recurring waste analyses are not required. When a research experiment changes, personnel rely on user knowledge and material safety data sheets to classify and define the waste. It is unlikely, but if necessary, NSA Bethesda would repeat the chemical and physical analysis for hazardous wastes, if there is reason to believe that the process or operation generating the waste has changed.

The paint shop generates small batches of waste lacquer thinner and waste paint daily. Since the composition of the raw materials does not change, personnel rely on safety data sheets to define the waste streams. Laboratory analysis is not required.

Unknown wastes are rarely encountered at NSA Bethesda; when they are, laboratory analysis is required for identification. Waste accompanied by information insufficient for categorization is also sampled for laboratory analysis. Frequency of laboratory analysis is dictated by how often such unknown or uncategorized wastes are encountered.

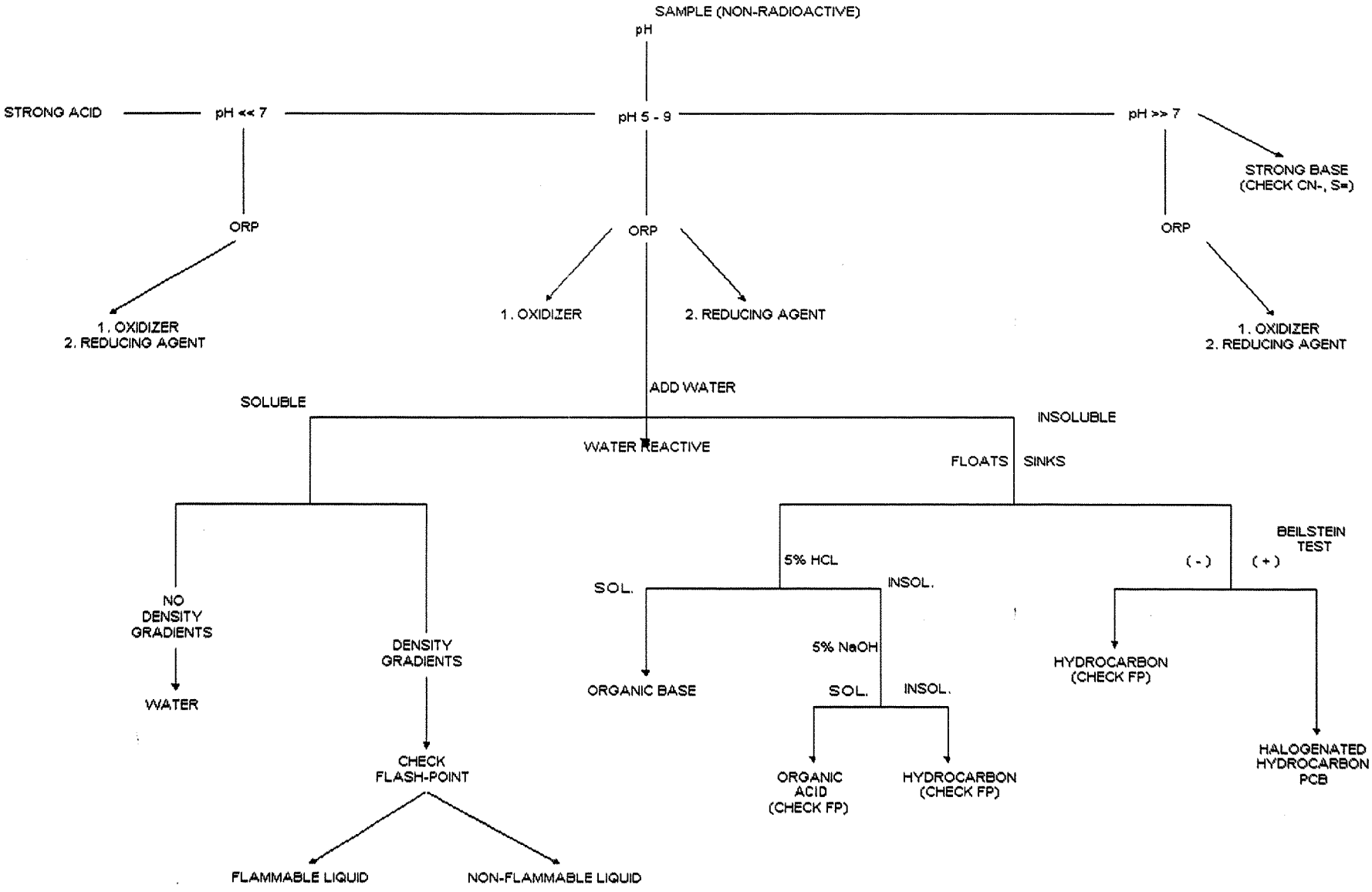
3.3.8. Off-Site Hazardous Waste

NSA Bethesda does not receive hazardous waste from off-site sources and will not accept waste from off-site sources in the future.

3.3.9. Quality Assurance

When an unknown waste is discovered, NSA Bethesda contracts a private environmental laboratory for "unknown" analysis. The laboratory submits a Quality Assurance/Quality Control Plan for review prior to contract approval. NSA Bethesda uses only EPA-certified laboratories and maintains documentation of certification for each contract laboratory.

Figure 3-1 Compatibility Tree



ATTACHMENT 2

PROCEDURES TO PREVENT HAZARDS

2.3. Procedures to Prevent Hazards (Permit Condition II.E)

COMAR 26.13.07.02(D)(20) requires that the permit application provide a justification of any request for a waiver or waivers of the preparedness and prevention requirements of COMAR 26.13.05.03 (Preparedness and Prevention). No waiver is required. This section demonstrates compliance with the requirements as follows:

- Required Equipment in COMAR 26.13.05.03C,
- Equipment Testing and Maintenance in COMAR 26.13.05.03D,
- Communication or Alarm System Access in COMAR 26.13.05.03E, and
- Required Aisle Space in COMAR 26.13.05.03F

2.3.1. Required Equipment

This section addresses the requirements in COMAR 26.13.05.03C (Required Equipment).

COMAR 26.13.05.03C(1) requires an internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel. Building 256 is equipped with a pull station inside each pedestrian door. The pull station activates an alarm system at NSA Bethesda's Fire Department, lights a fire panel in Building 256, activates the dry chemical fire extinguishing equipment, and rings a weather proof bell located on Building 256's west side exterior wall. In the event of a power failure, the alarm system will function on battery back up.

COMAR 26.13.05.03C(2) requires a device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams. One telephone is located on the west wall between the pedestrian and the overhead doors in Building 256. This telephone provides communication to obtain emergency assistance from the NSA Bethesda and Montgomery County fire departments, police departments, and emergency response teams.

COMAR 26.13.05.03C(3) requires portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment. Building 256 is equipped with the following:

1. Three portable fire extinguishers,
2. Dry chemical fire extinguishing equipment,
3. Spill control equipment storage (e.g., absorbent pillows, spill supply kits),
4. Decontamination equipment (e.g., brooms, shovels), and
5. An emergency eyewash and shower located beside the overhead door.

In addition to supplies in Building 256, additional supplies are maintained on the NSA Fire Department's first response vehicle, in the EPD offices in Building 14, and in buildings near Building 256.

Clean up and disposal are the responsibility of the Hazardous Waste Coordinator under the authority of the Navy On-Scene Coordinator at NSA BETHESDA (NOS-MIDLANT). Spilled material, any contaminated media, and all non-reusable cleanup materials, including disposable clothing, sorbents, brushes, rags, brooms, and containers, will be packaged in Department of Transportation (DOT) approved containers. The containers will be marked and labeled in accordance with DOT requirements.

COMAR 26.13.05.03C(4) requires water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems. The nearest fire hydrant to Building 256 is approximately 150 feet away. When it was tested in July 2017, it showed a capacity of 1,031 gallons per minute and a pressure of 102 psi.

2.3.2. Equipment Testing and Maintenance

COMAR 26.13.05.03D requires testing and maintenance of communication or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment to assure its proper operation in time of emergency.

EPD personnel/contractors inspect Building 256 daily, when in use, to monitor for safety concerns. The inspector enters the time and date of the inspection, comments on observations made, and records the remedial actions. Typical problems noted during the inspection are the availability of spill cleanup supplies and the condition of emergency/safety equipment.

If the inspector observes deficiencies, such as an inoperable emergency shower or a lack of absorbent, he takes action to correct the problem and then documents the action. Remedial action will occur immediately if an emergency exists as described in the NSA Bethesda Contingency Plan, or if the discrepancy is easily corrected.

If correcting the problem becomes involved and does not threaten human health or the environment, the inspector submits the required NSA Bethesda documentation for repair. An example of this action would include peeling epoxy floor sealant. EPD personnel submit a "Work Request" to hire a contractor to repair the sealant.

2.3.3. Communication or Alarm System Access

COMAR 26.13.05.03E(1) requires personnel involved with hazardous waster operations (e.g., pouring, handling) to have immediate access to an internal alarm or emergency communications device. In addition, COMAR 26.13.05.03E(2) requires that if there is just one employee on the premises during operations, he shall have immediate access to a device (e.g., telephone, hand-held two-way radio) capable of summoning external emergency assistance.

Whenever hazardous waste is being handled in Building 256, personnel have immediate access to devices for emergency communication. A telephone is located on the west wall between the pedestrian and the overhead doors of Building 256. The phone enables the NSA Bethesda and Montgomery County fire departments, police departments, and emergency response teams to be contacted for emergency assistance. In addition, Building 256 is equipped with a pull station inside each pedestrian door. The pull station activates an alarm system at NSA Bethesda's Fire

Department, lights a fire panel in Building 256, and rings a weather proof bell located on Building 256's west side exterior wall. In the event of a power failure, the alarm system will function on battery back up.

2.3.4. Required Aisle Space

COMAR 26.13.05.03F requires adequate aisle space to be maintained to allows unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any part of the facility operation in an emergency.

Figure 2-11 shows Building 256's floor plan. The floor space in Building 256 is divided into 10 containment areas, including an aisle, by 6 inch curbing. There are three exits from the building, two pedestrian doors on the northeast and southwest sides of the building, and a wide overhead door on the northwest side.

EPD personnel/contractors inspect Building 256 daily when in use to detect and correct problems before human health or the environment is harmed. These daily inspections include checking for any obstructions to the doors or aisle spaces, and performing corrective action, as appropriate.

2.3.5. Prevention Procedures, Structures, and Equipment

This section address the permit application information of COMAR 26.13.07.02D(22), which requires a description of procedures, structures, or equipment used at the facility to prevent negative impacts from the facility's operation.

2.3.5.1. Unloading Operation Discharge Prevention

A ramp permits forklift access over the containment berm into Building 256 through an 8-foot wide garage door (Figure 2-12). However, most hazardous waste is transported to Building 256 in small metal or glass containers packaged, according to compatibilities, in cardboard boxes. The containers are hand carried to specific containment bays for storage.

Occasionally, waste liquids in 55-gallon drums are transported to Building 256. Personnel move the 55-gallon drums into storage bays with hand trucks. The permanent ramps at the garage door, outside the eastern pedestrian door, plus two moveable wooden ramps provide a means to move drums across Building 256's berms.

2.3.5.2. Handling Area Runoff Prevention

Run-on into Building 256 is prevented by its containment dike, which extends 6 inches above grade. The wall and roof of Building 256 control precipitation into the building. Runoff from Building 256 is also prevented by it perimeter containment dike. Additionally, no floor drains, expansion joints, sewer lines, or drains were constructed within this facility. Potentially spilled liquids will not flow out of Building 256 unless the spilled volume is great enough to overflow the containment berms.

2.3.5.3. Water Supply Contamination Prevention

Six inch containment curbing prevents the flow of runoff from hazardous waste storage areas to the environment. Spilled liquids will not flow out of Building 256, potentially contaminating water supplies.

2.3.5.4. Equipment Failure and Power Outage Effect Mitigation

NSA Bethesda only stores hazardous wastes. No wastes are treated onsite minimizing a need for electrical power inside Building 256. The electric alarm system will function on battery backup in the event of a power failure.

An explosion proof lighting system, a ventilation system, an electronic scale, and a heat sensing alarm system are the only electrically operating systems inside Building 256. If a power outage occurs, personnel are not required to enter a darkened Building 256, for safety reasons, unless sufficient natural light is available (through an opened garage door or the pedestrian doors).

The storage facility's ventilation system operates pneumatically, with vents opening in response to an external thermostat. During the summer, the vents are left open permitting continual passive ventilation. In the event of a power outage, personnel could ventilate Building 256 by opening the garage and pedestrian doors and mechanically opening all air vents.

The heat sensing alarm systems operates electrically, and will function on battery backup in the event of a power failure. In addition, a power outage results in an alarm going off at the fire department. Personnel working near Building 256 could also alert the fire department by way of phone or radio in case of Building emergencies during a power outage.

During the summer/winter Building 256 is controlled by a newly installed heat pump. In a power outages heat may be lost in Building 256, creating a potential of some liquid hazardous waste freezing. Since the EPD only accepts waste liquids with free space in each container, container breakage due to expansion is minimized. If a prolonged winter power outage occurs, wastes in danger of freezing could be transferred back to the generator's heated <90-day area, with the permission of MDE.

Daily inspections of Building 256, which are performed when the building is in use, minimize these threats as trained personnel observe situations creating releases and act to avoid or to lessen the impact of such a release.

2.3.5.5. Undue Personnel Exposure Prevention

Minimizing personnel exposure to hazardous waste is a primary concern while operating the hazardous waste storage facility. EPD personnel and their contractors managing hazardous waste undergo training (See Section 4) designed to avoid accidents. Additionally, this training program teaches proper responses in the event of an accident when handling hazardous wastes.

NSA Bethesda maintains a safety and cleanup supply inventory to prepare for a hazardous waste spill in Building 256. For items not within Building 256, the equipment is maintained with the first response vehicle and therefore immediately available no matter where a hazardous material emergency occurs. Additional supplies are also maintained in the EPD offices in Building 14, and in buildings near Building 256. Personnel, trained in the use of this equipment, have access to full-face respirators, Tyvex and Saranex suits, gloves, boots, and escape hoods, which are also available at the storage facility and in Building 14.

Unnecessary exposure to hazardous waste is minimized during routine operations such as waste transfer. Personnel manage stored hazardous wastes in closed containers except when it is necessary to add or remove waste. Protective clothing such as gloves, goggles, safety shoes, and work suits are worn during waste transfer from the 90-day areas and SAAs to Building 256.

During waste transfer operations, personnel equip the EPD's pickup truck with emergency supplies, such as respirators and Tyvex suits. Also, NSA Bethesda's fire department is notified

of the waste transfer and remains available through radio contact. In the event of an accident, EPD and fire department personnel are equipped to manage the situation. Also, immediate radio communication is available to summon additional emergency response.

The vent system, phone, fire extinguisher, emergency shower, and eye wash are inspected weekly. In addition, all facility communications and alarm systems, fire protection equipment, spill control equipment, and decontamination equipment are tested and maintained as required under COMAR 26.13.05.03D.

2.3.6. Inspection Requirements (Permit Condition II.C)

This section address the permit application information of COMAR 26.13.07.02D(19), which requires a copy of the general inspection schedule required by COMAR 26.13.05.02F(2) (Development of a Written Schedule). The schedule must include specific inspection requirements in COMAR 26.13.05.09E (Use and Management of Containers, Inspections), which requires the owner or operator to inspect areas where containers are stored, at least weekly, looking (1) for leaks, and (2) for deterioration of containers and the containment system caused by corrosion or other factors.

2.3.6.1. General Inspection Schedule and Requirements

When Building 256 is in use, trained NSA BETHESDA EPD personnel or their contractors perform a daily pre-operative inspection of the hazardous waste storage facility for areas subject to spills and routine problems. An additional, more thorough inspection is conducted weekly to monitor for leaks, and container and containment system deterioration. In addition, as part of NSA BETHESDA's Environmental Management System (EMS), the EPD HW Manager performs a quarterly inspection to verify the condition of the building. The inspector documents observations of potential problems and takes action to correct the problem. Additionally, NSA BETHESDA fire inspectors identify and record safety violations and emergency equipment deficiencies on a quarterly basis. Inspections are designed to meet and exceed requirements described in COMAR 26.13.05.02.

NSA BETHESDA inspects Building 256 for the following:

- Malfunctions and deterioration,
- Operator errors, and
- Discharges that may cause, or lead to, a hazardous waste constitute release to the environment or a threat to human health.

Table 2-4 shows NSA Bethesda's written inspection schedule, which is maintained at the facility, for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

NSA Bethesda remedies any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule that ensures that the problem does not lead to an environmental or human health hazard. When a hazard is imminent or has already occurred, remedial action is taken immediately.

NSA Bethesda records inspections in daily and weekly logbooks, which are retained in Building 256. Past logbooks are kept by the EPD for at least 3 years from the date of inspection. Tables

2-5 and 2-6 are sample daily and weekly inspection logs. The logs include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

2.3.6.2. Daily Inspection Requirements

EPD personnel or contractors inspect Building 256 daily when in use to detect and correct problems before human health or the environment are harmed. Table 2-5 is a sample Daily Inspection Log. The inspector enters the date and time of inspection, comments on observations made, and records the date and time of inspection, comments on observations made, and records the date and nature of repairs or remedial actions. Typical problems noted are the placement of warning signs, the blockage of doors or aisle spaces, the condition of storage containers, and the general appearance of Building 256.

If the inspector observes deficiencies, such as missing labels or a leaking container, he or she takes immediate action to correct the problem and documents the corrective action.

2.3.6.3. Weekly Inspection Requirements

EPD personnel or contractors inspect Building 256 weekly to monitor additional safety concerns. Table 2-6 is a sample Weekly Inspection Log. The inspector enters the time and date of the inspection, comments on the observations made, and records the remedial actions. Typical problems noted during the weekly inspection are the availability of spill cleanup supplies, the condition of emergency safety equipment, inventory discrepancies, and any problems, which would be detected during the daily inspection.

If the inspector observes deficiencies, such as an inoperable emergency shower or a lack of absorbent, he takes action to correct the problem and then documents the action. Remedial action will occur immediately if an emergency exists as described in the NSA Bethesda Contingency Plan, or the discrepancy is easily corrected.

If correcting the problem becomes involved and does not threaten human health or the environment, the inspector submits the required NSA Bethesda documentation for repair. An example of this action would include peeling epoxy floor sealant. EPD personnel submit a "Work Request" to hire a contractor to repair the sealant.

Table 2-4. Inspections – Typical Problems, Frequency, and Remedial Actions

Category	Item	Potential Problem	Inspection Frequency	Repair/Remedial Action
Monitoring Equipment	Heat Detecting Fire Alarm System	Inoperable	Quarterly by NSA BETHESDA Fire Department	Work Request
Safety and Emergency Equipment	Emergency Shower/Emergency Eye Wash	Inoperable	Weekly	Work Request/Repair
	Ventilation System	Excessive Odor	Daily	Work Request/Repair Contingency Plan
	Fire Extinguisher	Unavailable or Expired	Weekly	Notify NSA BETHESDA Fire Department

	Personal Protection Equip.	Unavailable	Weekly	Repair/Replace
	Spill Cleanup Supplies	Unavailable	Weekly	Request Supply
	Empty Containers	Unavailable	Weekly	Request Supply
	Overpacks	Unavailable	Weekly	Request Supply
	Phone System	Inoperable	Daily	Work Request/Repair
Security Devices	Doors	Inoperable Locks	Daily	Repair/Replace Lock
	Signs	Missing/Defaced	Daily	Repair/Replace Signs
Operating and Structural Equipment / Building 256	Dikes/Berms Floor Forklift Ramps	Cracks Structural Damage Peeling Sealant	Daily	Work Request/Repair
	Lighting	Blown Bulbs	Daily	Replace/Repair
	Housekeeping	Insufficient Aisle Space Blocked Door/Passage Excessive Odor	Daily	Organize/Clean
	Temperature	Too high/low	Daily	Adjust/Repair
	Labeling	Missing Label	Daily	Apply Label
		Incorrect Labeling		Correct Information
	Stored Containers	Leaking Drum	Daily	Contain/Clean(Contingency)
		Storage Incompatibility	Daily	Move to correct bay
		Container Integrity	Daily	Repack if Necessary
		Incorrect Inventory	Daily	Update

Table 2-5. Building 256 Daily (When in Use) Inspection Log

DAILY (WHEN IN USE) BUILDING 256 INSPECTION LOG

"Y" indicates present/operational & "N" requires additional comments below

DATE: _____ TIME: _____										
ITEM TO BE INSPECTED	Y	N	Y	N	Y	N	Y	N	Y	N
Integrity										
1. Floor/curbing										
2. Concrete ramp										
3. Roof										
4. Walls										
5. Doors and locks										
6. Shelving										
7. Lights										
8. Vents/exhaust										
Safety										
9. Fire extinguisher/ alarm										
10. Telephone										
11. Eye wash station										
12. Shower										
13. Spill equipment										
14. PPE										
15. Warning signs posted										
16. Unobstructed exits										
17. Trash/debris free										
All items are certified at the date and time of the listed inspection:										
Signature of Inspector										
Comments (record the date of each comment):										

Table 2-6. Building 256 Weekly Inspection Log
"Y" indicates present/operational & "N" requires additional comments below

WEEKLY BUILDING 256 INSPECTION LOG

"Y" indicates present/operational &"N" requires additional comments on back

DATE: / TIME:								
ITEM TO BE INSPECTED	Y	N	Y	N	Y	N	Y	N
Integrity								
1. Floor/curbing								
2. Concrete ramp								
3. Roof								
4. Walls								
5. Doors and locks								
6. Shelving								
7. Lights								
8. Vents/exhaust								
Safety								
9. Fire extinguisher/alarm								
10. Telephone								
11. Eye wash station								
12. Shower								
13. Spill equipment								
14. PPE								
15. Warning signs posted								
Building contents								
16. Shelf # present								
17. Item ID # present								
18. Item accumulation date*								
19. Container integrity								
20. Items labeled								
21. Item compatibility								
22. Current inventory								
23. Spill/leak free								
24. Trash/debris free								
All items are certified at the date and time of the listed inspection:								
Signature of Inspector								

*If date on containers at 8 months then container will be added to DLA removal order. That will give 120 days to arrange for off site disposal.

COMMENTS

BUILDING/ROOM #: _____

DATE/TIME	COMMENT	INSPECTOR SIGNATURE

Additional Comments:

2.3.7. Ignitable, Reactive, and Incompatible Waste Requirements (Permit Condition II.I)

This section addresses the permit application information of COMAR 26.13.07.02D(24), which requires a description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with COMAR 26.13.05.02H (General Requirements for Ignitable, Reactive, or Incompatible Wastes), including documentation demonstrating compliance with COMAR 26.13.05.02H(3).

NSA Bethesda stores various categories of hazardous wastes. The EPD personnel utilize container selection, container management and various prevention measures as precautions to prevent the accidental ignition or reaction of ignitable, reactive, or incompatible wastes.

2.3.7.1. Container Selection

Most NSA Bethesda hazardous waste is generated in laboratories; therefore, the researcher, or person in charge of the operation, selects the receiving waste container. This container, usually a glass bottle or a 5-gallon steel container, is selected according to compatibility with the waste and is often the container in which the material was originally supplied. Another waste stream is carpentry shop waste paint and lacquer thinner. Personnel accumulate this ignitable waste in a 5-gallon can.

Certain reactive chemicals are supplied in double containers. For example, a 30 percent hydrogen peroxide solution is supplied within a glass bottle, contained inside a metal canister. A significant portion of the hazardous waste stream is expired shelf-life chemicals. These chemicals, stored in the original container, are managed for disposal after shelf-life expiration. Unless damaged, the original container and packaging, if available, meet DOT specifications, are compatible with the contents, and will prevent accidental ignition or reaction. If the original container and packaging are damaged or not available, the responsible party or EPD personnel transfer the waste into proper DOT-compliant containers and packaging. Hazardous waste leaving NSA BETHESDA is usually lab packed.

2.3.7.2. Container Management

While in the laboratory or shop, waste containers are closed except when adding or removing waste. This practice should prevent accidental ignition. NSA Bethesda fire inspectors routinely check work areas for fire code violations[10, 11].

Personnel generating the waste identify the contents to tenant command safety personnel who apply an appropriate label to the container. Generators or EPD personnel or their contractors classify the waste and transport it to the applicable area (e.g., SAA, <90-day, TSD) from the laboratory as described in the operating procedures (See Section 2.2.1). Ignitable and reactive wastes are segregated and are protected from sources of ignition during transportation and storage. Sources of ignition, such as open flames or cutting and welding equipment, are prohibited from the hazardous waste areas. Smoking is not permitted in any of these storage areas.

[10] National Fire Protection Association 30, Flammable Liquids Code.
[11] National Fire Protection Association 45, Fire Protection for Laboratories Using Chemicals.

EPD personnel and their contractors collect and transport hazardous waste from the tenant commands' SAAs or <90- day area to Building 256. NSA Bethesda operating procedures require the NSA Bethesda fire department to be notified and available by radio contact during hazardous waste pick-ups. In the event of accidental spillage or ignition of hazardous waste during transfer, immediate response is available.

2.3.7.3. Prevention Measures - Building 256

Ignitable hazardous wastes are stored in Building 256's flammables bay. This bay is a separate room, equipped with both an active and a passive ventilation system. Flammable vapors are removed before accumulation by a negative pressure active ventilation system.

Precautions preventing hazardous waste reactions are maintained in Building 256 through the use of a hazardous waste segregation plan. Wastes are stored according to the following classifications:

Bay 1	PCBs, Nonregulated Wastes, Large Containers of Compatible Wastes (e.g., 55 gallon drums), Empty Containers
Bay 2	Flammables
Bay 3	Organics[12]
Bay 4	Caustics, Inorganic Caustic Salts
Bay 5	Cyanides, Sulfides
Bay 6	Reactives[13]
Bay 7	Metals
Bay 8	Oxidizers
Bay 9	Acids, Inorganic Salts,

Hazardous wastes are segregated for storage by containment bays, shelves, and storage cabinets. The EPD HW Manager and the TSD Operator administers the segregation plan including designating storage areas for previously unassigned materials. Containment curbing (6-inch high), shelving, and storage cabinets prevent incompatible wastes contact. Aisle space requirements permit emergency equipment movement in the event of an accident.

2.3.7.4. Prevention Measures - General

Personnel are trained (See Section 4) to manage ignitable and reactive wastes properly. Compatibility and segregation requirements are emphasized to prevent accidental reactions or releases (See Section 2. 2). The emergency management of accidental ignition or chemical reaction is also included in NSA Bethesda's training program. When necessary, the contingency plan is invoked.

Storing incompatible wastes together is prevented through the use of NSA Bethesda's segregation program, which requires information supplied by the generator or data obtained through the Waste Analysis Plan. When the waste composition is identified, the generator creates an internal manifest, which remains on the container.

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[12] Organics will include the following: Aldehydes, Aliphatic and Aromatic Hydrocarbons, Cresols, Esters, Halogenated Hydrocarbons, Nitrated Organics, Organic Acids, and Phenols

[13] Isocyanates and peroxides will be stored on opposite ends of Bay 6.

Mixing incompatible wastes is unlikely since wastes are rarely bulked into larger containers. Small containers of compatible wastes are usually "lab packed" intact into 55-gallon drums for disposal.

An additional precaution to prevent the accidental ignition of ignitable wastes is a strict "No Smoking" policy inside Building 256. "No Smoking" signs are placed in numerous locations both inside and outside Building 256.

ATTACHMENT 3

PERSONNEL TRAINING

4. Personnel Training (Permit Condition II.D)

This section addresses the permit application information of COMAR 26.13.07.02D(28), which requires an outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with COMAR 26.13.05.02G (Personnel Training). COMAR 26.13.07.02D(28) also requires a brief description of how training will be designed to meet actual job tasks in accordance with requirements in COMAR 26.13.05.02(G)(1)(c).

4.1. Program of Instruction

NSA Bethesda's training program is designed to provide personnel who manage hazardous waste the knowledge necessary to respond to emergencies effectively by familiarizing them with emergency procedures and emergency equipment. The education program stresses accident prevention. NSA Bethesda's training is designed to meet the requirements of COMAR 26.13.05.02G (Personnel Training) and 29 CFR 1910.120(p)(7) (Certain Operations Conducted Under the Resource Conservation and Recovery Act of 1976, Training Program).

- Command Orientation General HAZCOM. 29 CFR 1910.1200 requires that employees who work around, or are exposed to any sort of hazardous chemicals must be trained within 30 days of their hire date. NSA Bethesda personnel receive initial training in Hazard Communication (HAZCOM).
- Site-Specific On-the-Job Training (OJT). COMAR 26.13.05.02G requires facility personnel to complete a program of classroom instruction or on-the job training that teaches them to perform their duties in a way that ensures the facilities compliance with the requirements of COMAR 26.13.05 (Standards for Owners and Operators of Hazardous Waste, Treatment, Storage, and Disposal Facilities). Facility personnel shall take part in an annual review of the initial training. NSA Bethesda's OJT site-specific training addresses this requirement. New personnel with HM/HW responsibilities participate in site-specific OJT within six months of assignment to the position. Personnel are trained in RCRA waste identification/waste characterization, compatibility and segregation, Facility's CHS permit, COMAR 26.13 relevant to operation of the facility, inspections (including frequency, procedures, and appropriate corrective action and recordkeeping and reporting requirements. In addition, personnel are trained to recognize potential emergencies, to prevent the emergency from occurring (if possible), and to invoke NSA Bethesda's Contingency Plan when necessary. New personnel are taught to inspect and use emergency and communication equipment and to respond to an emergency, such as a fire. A new employee must learn, through OJT, to recognize and correct potential problems when inspecting the hazardous waste storage facility. The employee must also learn NSA Bethesda's internal hazardous waste management system. Once per year, facility personnel attend a Hazardous Waste Operation Annual Review. This course updates regulatory changes and provides a more detailed hazardous waste management discussion. In addition, training for Tenant Command Staff Handling HW covers hazardous waste regulations and management, emergency planning, and NSA Bethesda's internal hazardous waste management system.

- 24-hour and 8-hour Refresher HAZWOPER. 29 CFR 1910.120(p)(7) requires employers to develop and implement a training program for employees exposed to health hazards or hazardous substances at TSD operations to enable the employees to perform their assigned duties and functions in a safe and healthful manner as so as not to endanger themselves or other employees. The initial training shall be 24 hours and refresher training shall be for eight hours annually. NSA Bethesda's 24-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) and 8-hour Refresher HAZWOPER training address this requirement. New personnel with HM/HW responsibilities attend a 24-hour HAZWOPER or an equivalent course within 6 months of assignment to the position. This course covers hazardous waste regulations, personal safety, hazardous waste management, contingency planning, and chemical compatibilities.
- 40-hour and 8-hour Refresher HAZWOPER. 29 CFR 1910.120(e)(3)(i) requires that general clean-up site workers engaged in activities that may potentially expose them to hazardous substance and health hazards shall receive a minimum of 40 hours of instruction and 8 hours of refresher training annually. NSA Bethesda's 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) and 8-hour Refresher HAZWOPER training address this requirement. New personnel with HM/HW and clean up/response responsibilities attend a 40-hour HAZWOPER or an equivalent course within 6 months of assignment to the position. This course covers the same material as the 24-hour HAZWOPER course with the addition of spill response information and hands on activities.

Personnel involved in the handling or management of hazardous materials (HM) and waste (HW) at NSA include the following:

- EPD HW Manager,
- Research staff at NSA Bethesda and SAA Operators who maintain SAA operations
- Less than 90-day coordinators, and
- Hazardous waste storage facility operator.

The training provided to these personnel is as follows:

Personnel	Command Orientation General HAZCOM	Site-specific OJT	24-hour HAZWOPER	40-hour HAZWOPER	8-hour Refresher HAZWOPER
EPD HW Manager	X	X		X	X
SAA Operator	X	X			
<90-Day Coordinator	X	X	X		X
TSD Operator	X	X		X	X

The EPD HW Manager monitors and conducts the periodic site training for the SAA Operators and the <90-day coordinators, and ensures that personnel receive appropriate training for their job duties and training records are maintained. An Environmental Specialist or contractor with a working knowledge in chemistry and training in hazardous materials incident response and hazardous waste operations provides instruction. The research staff at NSA and SAA Operators are not required to take the 40-hour and 8-hour Refresher HAZWOPER because they are not exposure to safety and health hazard as defined in 29 CFR 1910.120(a)(1)(i-v) and 1926.65(a)(i-v); however they are provided with the General HAZCOM training and EMS standard operating procedures (SOP) to aid in the safe performance of their job duties (see Section 4.3).

4.2. Training Records

NSA Division Heads and Supervisors assign <90-day Coordinators and ensure that qualified SAA Operator are assigned to local SAA and provide the names to the EPD HW Manager. NSA Bethesda Division Heads and Supervisors maintain a list of personnel trained to work with HW and make training records available to the EPD HW Manager upon request. Introductory and continuing training requirements are part of NSA Bethesda's Environmental Management System Hazardous Waste Program Standard Operating Procedures for each HW position. NSA Bethesda documents all current personnel training, and maintains files on training received by all employees until closure for current employees or for at least three years after employee termination.

4.3. Standard Operation Procedures for Satellite Accumulation Areas (Tier 3 SOP HW-1)

The purpose of the SAA SOP is to ensure that personnel at NSA Bethesda handle, label, and accumulate waste in SAA safely and in accordance with HW regulations.

4.3.1. Responsibilities

The EPD HW Manager shall:

1. Oversee HW TSD Operators, <90-Day Coordinators, storage, and transfer of HW across NSA, and perform inspections at least once a year.
2. Ensure that SAA inspections occur quarterly.
3. Check that supervisors maintain signed HW SOPs during annual EPD Survey.
4. Provide guidance and training on HW-related issues, when requested.

The Supervisors of HW generation points shall:

1. Ensure and enforce compliance with these procedures in accordance with NSAINST 5090.1series and all federal, state, and local laws pertaining to the generation, handling, and storage of HW.
2. Ensure that personnel working with HW receive:
   a) Hazard Communication Training conducted by Staff Education and Training (SEAT) during Command Orientation.

b) Annual site-specific training unique to processes involving HW. Training must include awareness of significant or potentially significant environmental impacts associated with these processes.

3. Ensure that personnel who handle HW or who are associated with the management of HW have read and understand all applicable HW SOPs and emergency procedures as part of their site-specific training. Ensure that these personnel sign the Training History form found after each SOP.
4. Ensure that all HW operations are carried out in accordance with an approved SOP. HW SOPs and applicable emergency procedures shall be reviewed and signed whenever an employee is introduced to the operation and at least annually.
5. Maintain a list of all personnel trained to work with HW (copies of completed SOP Training History forms can be used), and maintain current copies of training certificates in a location that can be easily accessed.
6. As per OPNAVINST 5090.1D CH-27, ensure that annual performance ratings of all personnel managing HW reflect compliance with the policies and requirements of NSAINST 5090.1series and HW SOPs.
7. Inform the EPD HW Manager of the location of SAAs.
8. Ensure that a qualified SAA Operator has been assigned to all SAAs.
9. Ensure that the Industrial Hygiene and Safety Division are consulted for proper use of PPE to protect personnel while handling hazardous waste.

The SAA Operators shall:

1. Be responsible for the safe management of the SAA in accordance with Tier 3 SOP HW-1: *Satellite Accumulation Areas (point of generation).*
2. Complete: (a) Hazard Communication Training and (b) Site-Specific Training unique to each SAA. Read and sign all applicable Tier 3 HW SOPs and emergency procedures.
3. Coordinate HW pickups with the TSD Operator (301-295-5679 or 5681) when an HW pickup is required or arrange for "milk-runs" (preset pickups), if appropriate.
4. Promptly notify the EPD HW Manager (301-295-2708) of any problems relating to the execution of these procedures. Work directly with the EPD HW Manager to correct all deficiencies.

Personnel handling HW shall:

- Notify the EPD HW Manager or EPD Head of any violation, problems, or potential problems relating to these procedures.

4.3.2. Procedures

Satellite Accumulation Areas

1. Personnel may accumulate HW for more than 90 days as long as they do not accumulate more than 55 gallons of HW or 1 quart of acutely HW (contact the TSD Operator for an EPA P-List of acutely HW). Once any container is 90% full, or any of the above limits are met, notify the TSD Operator at to arrange a pickup.
2. Place compatible materials in any single container and ensure that the container is compatible with the waste (e.g., do not store acids in metal containers since acids corrode metal). Ask the EPD HW Manager for clarification of chemical/container compatibility or chemical classification, if needed.
3. Personnel must mark their containers with the words "Hazardous Waste" or with words that identify the contents, and the hazard. Use the standard yellow waste mark provided by EPD to mark the container. Protect ignitable chemicals from sources of ignition, such as open flames, smoking, sparks, or hot surfaces.
4. Do not overfill containers. Leave approximately 5 percent airspace for expansion.
5. Refer to NSA Bethesda's guidance for an overview of HW process from generation to pickup.

ATTACHMENT 4

CONTINGENCY PLAN

5. Contingency Plan and Emergency Procedures (Permit Condition II.F)

This section addresses the permit application information of COMAR 26.13.07.02D(21), which requires a copy of the contingency plan required by COMAR 26.13.05.04 (Contingency Plan and Emergency Procedures). In the event of a spill of a hazardous material in Building 256, general actions to be taken are described in the Oil and Hazardous Substances Spill Contingency Plan. The plan provides policy, responsibilities, and procedures for the control and clean-up of oil or hazardous substance releases. The specific contingency plan requirement and emergency procedures for responding to a hazardous substance spill, fire, explosion, or other emergency in Building 256 are outlined below. The plan will be reviewed and updated regularly.

5.1. Contingency Plan

This section addresses the requirements of COMAR 26.13.05.04C (Content of Contingency Plan).

5.1.1. Local Authority Arrangements

COMAR 26.13.05.04C(3) requires the contingency plan to describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to COMAR 26.13.05.03H. COMAR 26.13.05.03H requires NSA to attempt to make arrangements with police, fire departments, and emergency response teams, and local hospitals. NSA Bethesda Fire Department is notified immediately in case of an emergency. NSA Bethesda has a Mutual Fire and Rescue Assistance Agreement with Montgomery County, Maryland, Fire and Rescue Services (dated 28 January 2015). The agreement provides the NSA Fire Department with additional assistance during an emergency.

Additionally, a Memorandum of Understanding (MOU) between NSA Bethesda and the Montgomery County Local Emergency Planning Committee (LEPC) exists to ensure coordination between Montgomery County emergency organization and NSA Bethesda in the event of a hazardous material emergency. The NSA Bethesda Fire Department Chief, or his/her designate, shall be the point of contact between NSA and local emergency responder authorities. The EPD shall coordinate compliance with spill notification requirements to the appropriate state, Federal, and local authorities. Under the MOU, NSA Bethesda provides the information necessary for effective and safe emergency response (such as hazardous material lists, site and building plans, and contingency plans) to the LEPC. NSA Bethesda will also provide the information, as necessary, to assist the LEPC in responding to public inquiries in the event of an emergency, or in planning for potential future hazardous material incidents.

5.1.2. Emergency Coordinator

COMAR 26.13.05.04C(4) requires the contingency plan to list names, addresses, and phone numbers (office and home) of persons qualified to act as emergency coordinator (See COMAR 26.13.05.04F), and to keep this list up to date. When more than one person is listed, one shall be named as primary emergency coordinator and other shall be listed in the order that they will assume responsibilities as alternatives.

COMAR 26.13.05.04F (Emergency Coordinator) specifies that there shall be at least one employee either on the premises or on call (that is, available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating emergency response measures. This emergency coordinator shall be thoroughly familiar with aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

The Navy On-Scene Commander (NOSCDR) will direct and coordinate all on-scene operations associated with emergencies. The designated NOSCDR for NSA Bethesda is the Fire Chief or Senior Fireman On-Duty, who will serve as the primary emergency coordinator. The NSA Bethesda Fire Chief is Daniel Hunt at 301-295-5623 (office) and REDACTED . In addition, the EPD Head and the EPD HW Manager will serve as the secondary and tertiary emergency coordinators. The EPD Head is Susan Paul at 301-295-2482 (office) and REDACTED REDACTED. The EPD HW Manager is Karen Loomis at 301-295-6393 (office).

5.1.3. Emergency Equipment

COMAR 26.13.05.04C(5) requires the contingency plan to list emergency equipment at the facility (e.g., fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), decontamination equipment). Section 2.3.1 provides a summary of the required emergency equipment that are at NSA Bethesda.

5.1.4. Evacuation Plan

COMAR 26.13.05.04C(6) requires the plan to include an evacuation plan for facility personnel. The plan shall describe signals to be used to begin evacuation, evacuation routes, and alternative evacuation routes (when the primary routes could be blocked by releases of hazardous waste or fires).

Figure 2–11 shows the floor plan of Building 256. There are three exits, two pedestrian doors on the northeast and southwest sides of the building, and wide overhead door on the northwest side. Evacuation from the immediate area around Building 256 would be along Grounds Road to primary muster point (primary route) or Perimeter Road (secondary route) to alternate muster point. Figure 2–2 shows the layout of NSA Bethesda and the roads accessing Building 256. A roll call will be taken at the muster point to account for all personnel that were known to be in Building 256 at the time of the evacuation. The NOSCDR will initiate and direct any necessary evacuations of the immediate area. If a more wide-spread area is affected and personnel or base residents need to be evacuated, the Command Duty Officer/Officer of the Day will be notified and will initiate and coordinate the procedure.

5.2. Emergency Procedures

This section addresses the requirements of COMAR 26.13.05.04G (Emergency Procedures).

5.2.1. Notification

When there is an imminent or actual emergency, COMAR 26.13.05.04G(1) requires notification of facility personnel and appropriate State and local agencies, if help is needed. The first person aware of a spill or a potential spill shall immediately notify the NSA Bethesda Dispatcher directly by telephone, "777" or (301) 295-0999 by cell phone. The Fire Department chief will

notify the NOSC-NSAB. In coordination with the NOSCDR, the NOSC-NSAB will determine what notification and reporting is required.

In the event of an emergency, the building would be evacuated through one of the two pedestrian doors or the wide overhead door, the area would be secured from entry, and all sources of ignition would be eliminated. Notification procedures would then be initiated.

The NSA Bethesda Fire Department would be notified immediately through the facility's emergency phone number, "777." The NSA Contingency Plan would then be activated; the NOSCDR will direct and coordinate all on-scene operations associated with the release.

Table 5-1 contains the list of emergency notification agencies, telephone numbers, and situations requiring notification. The National Response Center shall be notified (1-800-424-8802) by the NOSC-NSAB or NOSCDR if the release exceeds the reportable quantity for the spilled substance. The LEPC and the State Emergency Response Commission (SERC) must be given notification in accordance with EPCRA 304 if the spilled material is also an Extremely Hazardous Substance (listed at 40 CFR Part 355) or if it poses an immediate threat to human life or property. The NOSC-NSAB, or his/her representative shall determine if these notifications are necessary.

Table 5–1
Emergency Notification List

Agency	Telephone No.	Notify when:
NSAB Fire Department	**777**	**NSA Spills**
National Response Center	(800) 424-8802	Spill meets/exceeds CERCLA reportable quantity (RQ) (see Annex VII)
State - (SERC)	(410) 333-2950 – Day (410) 974-3551 - 24 hour 1 (866) 633-4686 - 24 hour	Any POL or RQ release
Montgomery County (LEPC)	(301) 217-2470	Any POL or RQ release
Washington Sanitary Sewer Commission (WSSC)	(301) 206-8529	Spill enters or threatens to enter sanitary sewer system
Montgomery County Fire Department	911	Spill threatens local community/assistance required
U.S. EPA Region III	(215) 597-9898	Any POL or RQ release
NSAB Safety	(301) 295-2870	NSA spills
MDE HazWaste	(410) 537-3315	Bldg 256 spills
NOSC MIDLANT	(757) 341-0449	Any spill assistance

5.2.2. Release Material Recognition

Whenever there is a release, fire, or explosion, COMAR 26.13.05.04(G)(2) requires the emergency coordinator to immediately identify the character, exact source, amount, and aerial extent of any released materials. This may be accomplished by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

The waste in Building 256 is inventoried. The NSA Bethesda Fire Department keeps a copy of this inventory. The inventory is keep at 256 and the Environmental office as well. EPD's contractor keeps the internal manifest, including pertinent information on chemical and physical properties, and if appropriate, SDSs. There are no unknown materials stored in Building 256.

5.2.3. Human Health or Environmental Hazard Assessment

COMAR 26.13.05.04(G)(3) requires the emergency coordinator to assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion (e.g., effects of any toxic, irritating, or asphyxiating gases that are generated, effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

Figure 2–11 shows the layout of Building 256. Upon arrival, the NOSCDR will assess the situation and take immediate action to protect personnel and property.

5.2.4. Human Health or Environmental Hazard Beyond Facility or Above Reportable Quantities

If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health, or the environment, outside the facility, or a release in a quantity that exceeds the Reportable Quantities[1], COMAR 26.13.05.04(G)(4) requires the emergency coordinator to report the findings as follows:

a) If the assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities and be available to help appropriate officials decide whether local areas should be evacuated.

b) The emergency coordinator shall immediately notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under 40 CFR 1510) or the National Response Center using their 24-hour toll-free number (800) 424-8802, and the MDE, Emergency Response Program (410) 974-3551. The report shall include:

   (i) Name and telephone number of reporter;
   (ii) Name and address of facility;
   (iii) Time and type of incident (for example, release, fire);
   (iv) Name and quantity of materials involved, to the extent known;
   (v) The extent of injuries, if any; and
   (vi) The possible hazards to human health, or the environment, outside the facility.

[1] Listed in 40 CFR 302, as promulgated effective July 1, 1990.

5.2.5. Fire, Explosion, and Release Migration Prevention to Other Facility Hazardous Waste

During an emergency, COMAR 26.13.05.04(G)(5) requires that the emergency coordinator take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

Promptly after arrival at the site, the OSOT, under supervision of the NOSCDR, will initiate actions to establish control of the affected area, so that effective stabilization of the spill is achieved with minimal risk to response personnel and the environment. The operation shall strictly follow the standard health and safety procedures for site evaluation, delineation of work zones, entry into hazardous environments and personnel/equipment decontamination established in Chapter 7 of the Navy Oil and Hazardous Substance Spill Control Manual.

Supplies are immediately accessible to Building 256; several spill supply kits are located in the building itself; additional supplies are maintained on the NSA Fire Department's first response vehicle and in buildings near Building 256.

During an emergency, the NOSCDR will take all reasonable measures to ensure that fires, explosions, or releases do not occur, recur, or spread, by the following methods: by collecting and containing released waste, and removing and isolating containers.

5.2.6. Monitoring Following Operation Termination

If the facility stops operations in response to a fire, explosion, or release, COMAR 26.13.05.04(G)(6) requires that the emergency coordinator monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

In the event of a fire or explosion, all containers in the TSDF will be assumed to have been compromised as a result. All containers will be removed, inspected and repackaged if necessary, by an appropriate vendor and sent out for disposal. The facility will be cleared of all waste stored in Building 256 in case of fire or explosion.

5.2.7. Release, Fire, or Explosion Resultant Material Disposition

Immediately after an emergency, COMAR 26.13.05.04(G)(7) requires that the emergency coordinator provide for treating, sorting, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

Clean up and disposal is the responsibility of the Hazardous Waste Coordinator under the authority of the NOSC-NSAB. Spilled material, any contaminated media, and all non-reusable cleanup materials, including disposable clothing, sorbents, brushes, rags, brooms, and containers, will characterized in accordance with RCRA and COMAR to determine if they meet the definition of a hazardous waste. If a hazardous waste, they will be managed in accordance with applicable regulations. Prior to disposal the containers will be packaged in DOT approved containers. The containers will be marked and labeled in accordance with DOT requirements.

5.2.8. Pre-Requisite Activities Prior to Resuming Operations

COMAR 26.13.05.04(G)(8) requires that the emergency coordinator ensure that, in the affected areas of the facility:

a) Waste that may be incompatible with the released material is not treated, stored, or disposed of until cleanup procedures are completed; and

b) Emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations resumed.

A 6-inch berm provides secondary containment around each individual storage bay in Building 256. Incompatible wastes are stored in separate bays, thereby minimizing the possibility of contact between these wastes, even in the event of a spill.

If multiple hazardous waste spills were to occur simultaneously in Building 256, information on compatibility could be determined through review of MSDSs and internal manifests, which are kept for all wastes in Building 256. Clean up and disposal would be conducted without allowing the incompatible substances to come into contact.

All reusable protective clothing and equipment will be thoroughly decontaminated and inspected before being returned to their proper storage locations.

5.2.9. Notification Prior to Resuming Operations

Before operations are resumed in the affected areas of the facility, COMAR 26.13.05.04(G)(9) requires that NSA notify the, MDE Secretary and appropriate other State and local authorities that the facility is in compliance with COMAR 26.13.05.04(G)(8).

Prior to resuming operations, NSA will notify the MDE Secretary and appropriate other State and local authorities that the facility is in compliance with COMAR 26.13.05.04(G)(8).

5.2.10. Incident Record and Reporting

COMAR 26.13.05.04(G)(10) requires that NSAB note in the operating record the time, date, and details of any incident that required implementing the contingency plan. In addition, within 15 days after the incident, NSA must submit a written report on the incident to the MDE Secretary.

NSAB will note in the operating record the details of any incident that required implementing the contingency plan.

Appendix A
NSA Bethesda's RCRA Contingency Plan

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CONTINGENCY PLAN

NSA Bethesda

October 2017
Prepared for
NSA Bethesda
Prepared by

NAVFAC
Naval Facilities Engineering Command
NAVFAC ATLANTIC

TABLE OF CONTENTS

1. Contingency Plan and Emergency Procedures (Permit Condition 11.F)

This plan addresses the RCRA storage permit application information of COMAR 26.13.07.02 D(21), which requires a copy of the contingency plan required by COMAR 26.13.05.04 (Contingency Plan and Emergency Procedures). This plan will be implemented in the event of a spill of a hazardous waste in the permitted storage facility, building 256, or the less than 90 day accumulation area in the main hospital parking garage, building 55. In addition, this plan establishes general emergency response procedures for any spills, releases or other emergency situations at any hazardous waste satellite accumulation point. Though not currently required by Maryland regulation, the recent EPA Hazardous Waste Generator Improvements Rule, published 28 November 2016 requires that contingency planning be extended to facility satellite accumulation locations. This requirement will go into effect when Maryland implements the changes via the state legislative process.

General emergency response actions to be taken in the event of any hazardous material incident are described in the NSAB oil and hazardous substances Spill Contingency Plan (SCP). The SCP provides policy, responsibilities, and procedures for the control and clean-up of oil or hazardous substance releases. The specific RCRA contingency plan requirement and emergency procedures for responding to a hazardous waste spill, fire, explosion, or other emergency in buildings 256 and 55, as well as the satellite accumulation points are outlined below. This plan will be reviewed and updated annually, if it fails in the event of an emergency, or as dictated by changing site conditions.

2. Contingency Plan General Requirements and Procedures

This section addresses the requirements of COMAR 26.13.05.04C (Content of Contingency Plan).

Local Authority Arrangements

Installation personnel are trained to notify the NSA Bethesda Fire Department immediately in the event of *any* spill greater than 5 gallons, fire, or other emergency related to hazardous waste. COMAR 26.13.05.04C(3) requires the contingency plan to describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to COMAR 26.13.05.03H. COMAR26.13 .05.03H requires NSAB attempt to make arrangements with police, fire departments and emergency response teams, and local hospitals that may be called upon to provide support in the event of a hazardous waste emergency at NSAB.

The on-site hazardous waste support contractor, HazTrain, is obligated to respond to and clean up hazardous waste spills within their capabilities and to provide support to the first responders as necessary. The specific requirements are detailed in contract N40080-15-D-0306.

NSAB fire and emergency response personnel are part of NAVFAC Naval District Washington Fire and Emergency Services. NSAB maintains limited capability to respond to significant hazmat incidents in-house. The nearby National Institutes of Health (NIH) Fire and Emergency Services maintains a more robust hazmat response team. An inter-service support agreement (ISSA) with NIH provides response for hazmat incidents that exceed in-house capabilities.

If an incident exceeds the capability of NSAB and NIH, NSAB Bethesda has a Mutual Aid

Agreement for fire and rescue assistance with Montgomery County, Maryland, Fire and Rescue Services (dated 28 January 2015). The agreement provides the NSAB Fire Department with additional assistance during an emergency. NAVFAC Naval District Washington also has more significant hazmat response capabilities that will be requested and activated along with Montgomery County if the NIH and in-house capabilities are exceeded.

Additionally, a Memorandum of Understanding (MOU) between NSAB and the Montgomery County Local Emergency Planning Committee (LEPC) exists to ensure coordination between Montgomery County emergency organization and NSAB in the event of a hazardous material emergency. The NSAB Fire Department Chief, or his/her designate, shall be the point of contact between NSAB and local emergency responder authorities. The EPD shall coordinate compliance with spill notification requirements to the appropriate state, Federal, and local authorities. Under the MOU, NSAB provides the information necessary for effective and safe emergency response (such as hazardous material lists, site and building plans, and contingency plans) to the LEPC. NSAB will also provide the information, as necessary, to assist the LEPC in responding to public inquiries in the event of an emergency, or in planning for potential future hazardous material incidents.

Copies of this plan will be distributed to all surrounding emergency services function and medical facilities that may be called upon to provide support in the event of an emergency.

Emergency Coordinator

COMAR 26.13.05.04C(4) requires the contingency plan to list names, addresses, and phone numbers (office and home) of persons qualified to act as emergency coordinator (See COMAR 26 13.05.04F), and to keep this list up to date. When more than one person is listed, one shall be named as primary emergency coordinator and other shall be listed in the order that they will assume responsibilities as alternatives.

COMAR 26.13.05.04F (Emergency Coordinator) specifies that there shall be at least one employee either on the premises or on call (that is, available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating emergency response measures. This emergency coordinator shall be thoroughly familiar with aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

The Navy On-Scene Commander (NOSC) will direct and coordinate all on-scene operations associated with emergencies. NSAB maintains an in-house fire and emergency services function that is staffed and operational continuously. There is always an individual on-site authorized to be an on-scene commander in the event of an emergency. In addition, the designated on-scene commanders are authorized to commit the resources necessary to respond to any emergency. The following individuals are designated as potential on-scene commanders:

Daniel Hunt, Fire Chief, Office – 703-589-2112, REDACTED
Christopher Hill. Fire Chief – 301-295-0319, REDACTED
Susan Paul, IEPD, Office – 301-295-2482, REDACTED
Karen Loomis, HW Manager, Office – 301-295-6393

3. Contingency Plan Site Specific Requirements and Procedures

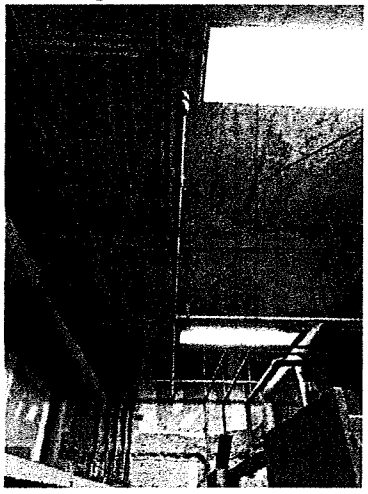
Permitted Storage Unit, Building 256

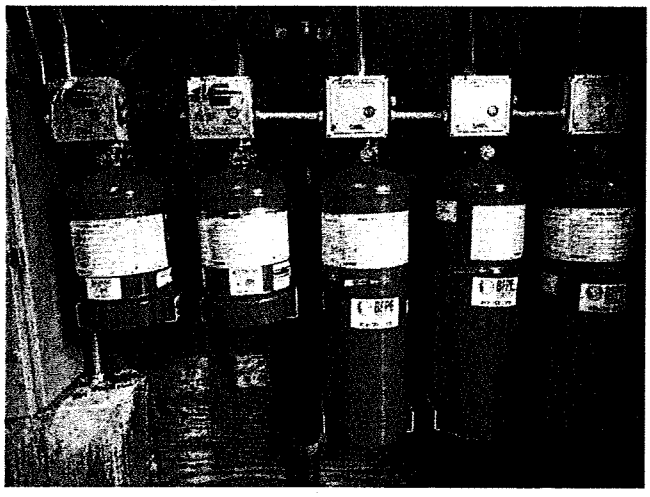
Building 256 is a hazardous waste storage facility permitted by the state of Maryland under permit number A-221 under EPA ID No. MD4170024687. The facility is designed, constructed, and operated to minimize the potential for fire or releases of hazardous waste to the environment. The entire building is designed with inherent secondary containment. Any releases within the building cannot reach the outside. Incompatible materials (e.g. organics, acids, etc.) are segregated by low concrete berms to prevent dangerous reactions in the case of spills. Flammable materials are segregated in a separate room with fire rated walls.

Emergency Equipment

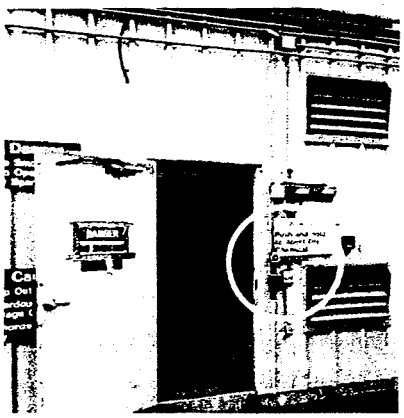
COMAR 26.13.05.04C(5) requires the contingency plan to list emergency equipment at the facility (e.g., fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), decontamination equipment). Section 2.3 .1 provides a summary of the required emergency equipment that are at NSAB.

Fire Suppression: The permitted storage facility has a dedicated dry chemical fire suppression system. There are five bottles of dry chemical in the utility shed behind the building that supply discharge nozzles located above the waste storage areas.



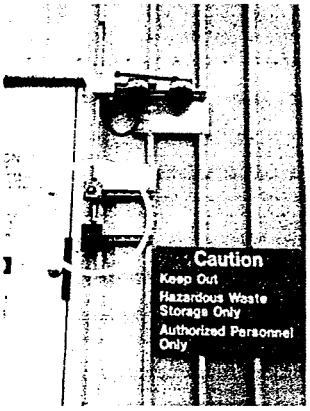


In the event of a fire, the dry chemical will discharge throughout the building. Fire alarm/dry chemical discharge pull handles are located at multiple locations inside and outside the building. At the northeast and southwest facing entry/exit doors there are pull handles immediately inside and outside each door. There is an additional pull handle adjacent to the flammable waste storage room. Activating the alarm and fire suppression system will automatically notify the installation fire department.



Southwest Exit Outside

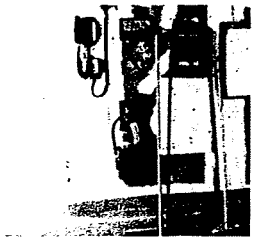
Southwest Exit Inside



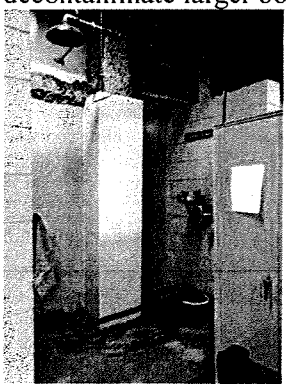
Northeast Exit Outside

Northeast Exit Inside

In addition, there are two portable fire extinguishers located next to each exit door. One additional portable fire extinguisher is located next to the drench shower and eye wash station.



Decontamination Equipment: On the north wall adjacent to the large roll-up door is a drench shower and eye wash station. The eye wash station will be used in the event an employee or other individual gets hazardous waste or other materials on their face. The drench shower will be used to decontaminate larger body areas.



Spill response supplies: Appendix A lists the supplies available in the permitted storage area to be used in the event of a spill or release of hazardous waste.

Evacuation Plan

COMAR 26.13.05.04C(6) requires the plan to include an evacuation plan for facility personnel. The plan shall describe signals to be used to begin evacuation, evacuation routes, and alternative evacuation routes (when the primary routes could be blocked by releases of hazardous waste or fires).

Appendix B shows the floor plan and evacuation plan for Building 256. There are three exits, two pedestrian doors on the northeast and southwest sides of the building, and wide rollup door on the southwest corner of the building. Evacuation from the immediate area around Building 256 would be along REDACTED to REDACTED (primary route) or REDACTED (secondary route). Figure 2-2 shows the layout of NSAB Bethesda and the roads accessing Building 256. The NOSC will initiate and direct any necessary additional evacuations of the immediate area. If a more wide-spread area is affected and personnel or base residents need to be evacuated, the Command Duty Officer/Officer of the Day will be notified and will initiate and coordinate the procedure.

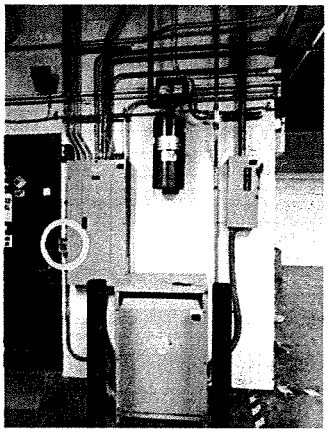
Considering the small size of the facility, personnel will be notified to evacuate via voice command or if the fire alarm system has been activated. The facility is operated to minimize the potential for releases to the environment.

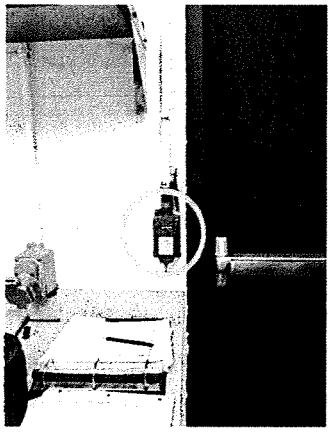
Less Than 90 Day Accumulation Area, Building 55

In addition to the permitted storage facility NAS Bethesda maintains a small, less than 90 day hazardous waste accumulation area in the main hospital building, 55. Hazardous wastes from throughout the hospital are initially moved to the less than 90 day accumulation area prior to transport to the permitted storage facility weekly. The facility is approximately 180 square feet and is located on the back side of the hospital adjacent to the medical waste area and the loading dock. There are two doors for access to the accumulation area.

Emergency Equipment

Fire suppression: The facility has a dry chemical fire suppression system dedicated to the less than 90 day accumulation area. Alarm and fire suppression activation stations are located inside and outside each door.





Decontamination Equipment: A decontamination drench shower and eye wash station is available in the corner or the room and readily accessible.

Spill response supplies: Appendix A lists the supplies available in the less than 90 day accumulation area.

Evacuation Plan

COMAR 26.13.05.04C(6) requires the contingency plan include an evacuation plan for facility personnel. The plan shall describe signals to be used to begin evacuation, evacuation routes, and alternative evacuation routes (when the primary routes could be blocked by releases of hazardous waste or fires). Appendix C shows the approximate floor plan of the less than 90 day area in building 55 and the immediately surrounding area. There are two exits in the room itself. Personnel will exit the room and proceed toward the loading dock area. Exit the loading dock area and cross E. Palmer Rd. Proceed northeast on E. Rixey Rd to the muster area behind building 14. The NOSC will initiate and direct any necessary additional evacuations of the

immediate area. If a more wide-spread area is affected and personnel or base residents need to be evacuated, the Command Duty Officer/Officer of the Day will be notified and will initiate and coordinate the procedure.

Considering the small size of the facility, personnel will be notified to evacuate via voice command or if the fire alarm system has been activated. The facility is operated to minimize the potential for releases to the environment.

Satellite Accumulation Points (SAP)

The waste management function at NSA Bethesda oversees and supports approximately 21 satellite accumulation points across the installation identified in Appendix D. Most generate relatively small quantities of waste, relying on five gallon containers or smaller for waste accumulation; a handful accumulate waste in 55 gallon drums. The dynamic nature of a military organization and the size of the overall installation mean the total number and location of satellite accumulation points can vary significantly. Establishing SAP specific contingency procedures is impractical. However, the following general procedures should be implemented in event of a substantive release of hazardous waste at a SAP.

Emergency Equipment

Fire Suppression: Satellite accumulation points are not specifically equipped with any emergency equipment. However, all occupied buildings within the Walter Reed National Military Medical Center compound are equipped with fire alarms, sprinkler systems and portable fire extinguishers. Fire alarm pull stations are located throughout all buildings and activating the alarm notifies the installation fire department automatically.

Decontamination Equipment: Satellite accumulation points are not specifically equipped with drench showers or eye wash stations. Specific locations, including certain laboratory areas and industrial locations do maintain drench showers and eye wash stations if employees routinely use chemicals or hazardous materials that OSHA considers to dictate the need for immediate access. As such, SAPs that accumulate wastes that potentially warrant the need for drench shower and eye wash access will typically only be located in areas that maintain this equipment.

Spill response supplies: Satellite accumulation points are not specifically equipped with spill response supplies. The hazardous waste contractor has access to spill supplies (Appendix A) that will be used in the event of a release at a satellite location.

Evacuation Plan

All occupied buildings and functional areas within the Walter Reed National Military Medical Center compound do have an evacuation plan developed by the facility (building) manager or operational department head to be implemented in the event of a fire or other emergency. As a result, SAPs are only located in areas with established evacuation plans. These evacuation plans are periodically exercised during drills and updated as necessary.

4. Emergency Procedures

This section addresses the requirements of COMAR 26.13.05.04 G. (Emergency Procedures).

Small Releases

The NSA Bethesda hazardous waste contractor is obligated to respond to small releases of hazardous waste within their capabilities. The contractor's ability to respond will not be based solely on the quantity of waste released. In conjunction with the NSA Bethesda environmental programs division and the fire chief if necessary, the contractor will take into consideration other pertinent factors such as safety, spill location, environmental impacts, and impacts on facility personnel.

Notification

When there is an imminent or actual emergency, COMAR 26.13.05.04G(1) requires notification of facility personnel and appropriate State and local agencies, if help is needed. The first person aware of a spill or a potential spill within the TSDF, less than 90 day hazardous waste accumulation area, or satellite accumulation point shall immediately notify the NSAB Fire Department directly by telephone, "777." In coordination with the installation environmental programs director (IEPD), the NOSC will determine what notification and reporting is required. In the event of an emergency, the area would be evacuated in accordance with the established evacuation plan, the area would be secured from entry, and all sources of ignition would be eliminated. Notification procedures would then be initiated. The NSAB Contingency Plan would then be activated; the NOSC will direct and coordinate all on-scene operations associated with the release. Table 5-1 contains the list of emergency notification agencies, telephone numbers, and situations requiring notification. The National Response Center shall be notified (1-800-424:-8804) by the IEPD or NOSC if the release exceeds the reportable quantity for the spilled substance. The LEPC and the State Emergency Response Commission (SERC) must be given notification in accordance with EPCRA 304 if the spilled material is also an Extremely Hazardous Substance (listed at 40 CPR Part 355) or if it poses an immediate threat to human life or property. The NOSC or representative shall determine if these notifications are necessary.

Table 5-1 Emergency Notification List

Agency	Telephone No.	Notify when:
National Response Center	(800) 424-8802	Spill meets/exceeds CERCLA reportable quantity (RQ) (see Annex VII)
State - (SERC)	(410) 333-2950 - Day (410) 974-3551 - 24 hour (866) 633-4686 - 24 hour	Any POL or RQ release
Montgomery County (LEPC)	(301) 217-2470	Any POL or RQ release
Washington Sanitary Sewer Commission (WSSC)	(301) 206-8595	Spill enters or threatens to enter sanitary sewer system
Montgomery County Fire Department	911	Spill threatens local community or assistance required
U.S. EPA Region III	(215) 597-9898	Any POL or RQ release
NSAB Base Safety	295-5724	NNMC spills
WRNMMC QA	295-5825	Bldg 1-10 spills
MDE Haz Waste	(410) 537-3400	Bldg 256 spills
NOSC NDW	(202) 767-1285 (202) 896-3416 (pager)	Any spill assistance
BUMED	(202) 653-1637	Any POL or RQ release

Release Material Recognition

Whenever there is a release, fire, or explosion, COMAR 26.13.05.04 G.2 requires the emergency coordinator to immediately identify the character, exact source, amount, and extent of any released materials. This may be accomplished by observation, overview of facility records, or manifests, and, if necessary, by chemical analysis.

Facility personnel maintain a complete inventory of the waste in Building 256. This information is shared with the NSAB Fire Department who keep a copy of this inventory. The inventory is kept at environmental office as well. TSD personnel maintain the internal manifest, including pertinent information on chemical and physical properties, and if appropriate, SDSs. There are no unknown materials routinely stored in Building 256.

Human Health or Environmental Hazard Assessment

COMAR 26.13.05.04 G.3 requires the emergency coordinator to assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion (e.g., effects of any toxic, irritating, or asphyxiating gases that are generated, effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat- induced explosions).
Appendix B shows the layout of Building 256. Upon arrival, the NOSC will assess the situation and take immediate action to protect personnel and property.

Human Health or Environmental Hazard Beyond Facility or Above Reportable Quantities

If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health, or the environment outside the facility, or a release in a quantity that exceeds the Reportable Quantities identified in 40 CFR 302, COMAR 26.13.05.04 G.4 requires the emergency coordinator to report the findings as follows:

If the assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities and be available to help appropriate officials decide whether local areas should be evacuated.

The emergency coordinator shall immediately notify either the government official designated as the on-scene coordinator for that geographical area or the National Response Center using their 24 hour toll-free number (800) 424-8802, and the MDE, Emergency Response Program (410) 974-3551. The report shall include:

- Name and telephone number of reporter;
- Name and address of facility;
- Time and type of incident (for example, release, fire);
- Name and quantity of materials involved, to the extent known;
- The extent of injuries, if any; and
- The possible hazards to human health, or the environment, outside the facility.

Fire, Explosion, and Release Migration Prevention to Other Facility Hazardous Waste

During an emergency, COMAR 26.13.05.04 G(5) requires that the emergency coordinator take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

Promptly after arrival at the site, the NOSC will initiate actions to establish control of the affected area, so that effective stabilization of the spill is achieved with minimal risk to response personnel and the environment.

Supplies are immediately accessible to Building 256; several spill supply kits are located in the building itself; additional supplies are maintained on the NSAB Fire Department's first response vehicle, in the EPD offices in Building 14, and in buildings near Building 256. During an

emergency, the NOSC will take all reasonable measures to ensure that fires, explosions, or releases do not occur, recur, or spread, by the following methods: by collecting and containing released waste, and removing and isolating containers.

Monitoring Following Operation Termination

If the facility stops operations in response to a fire, explosion, or release, COMAR 26.13.05.04 G(6) requires that the emergency coordinator monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

This requirement is not applicable to NSAB's hazardous waste storage unit or less than 90 day accumulation site or satellite points.

Release, Fire, or Explosion Resultant Material Disposition

Immediately after an emergency, COMAR 26.13.05.04 G(7) requires that the emergency coordinator provide for treating, sorting, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

Clean up and disposal is the responsibility of the Hazardous Waste Coordinator under the authority of the NOSC. Spilled material, any contaminated media, and all non-reusable cleanup materials, including disposable clothing, sorbents, brushes, rags, brooms, and containers, will be packaged in DOT approved containers. The containers will be marked and labeled in accordance with DOT requirements.

Pre-Requisite Activities Prior to Resuming Operations

COMAR 26.13.05.04 G(8) requires that the emergency coordinator ensure that, in the affected areas of the facility:

- Waste that may be incompatible with the released material is not treated, stored, or disposed of until cleanup procedures are completed; and
- Emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations resumed.

A 6-inch berm provides secondary containment around each individual storage bay in Building 256. Incompatible wastes are stored in separate bays; thereby minimizing the possibility of contact between these wastes, even in the event of a spill. If multiple hazardous waste spills were to occur simultaneously in building 256, information on compatibility could be determined through review of SDSs and internal manifests, which are kept for all wastes in Building 256. Clean up and disposal would be conducted without allowing the incompatible substances to come into contact. All reusable protective clothing and equipment will be thoroughly decontaminated and inspected before being returned to their proper storage locations.

Notification Prior to Resuming Operations

Before operations are resumed in the affected areas of the facility, COMAR 26.13.05.04(0)(9) requires that NSAB notify the MDE Secretary and appropriate other State and local authorities that the facility is in compliance with COMAR 26.13.05.04(0)(8).

Prior to resuming operations, NSAB will notify the MDE Secretary and appropriate other State and local authorities that the facility is in compliance with COMAR 26.13.05.04(0)(8).

Incident Record and Reporting

COMAR 26.13.05.04 G(10) requires that NSAB note in the operating record the time, date, and details of any incident that required implementing the contingency plan. In addition, within 15 days after the incident, NSAB must submit a written report on the incident to the MDE Secretary. The report will include:

- Name, address, and telephone number of the owner or operator;
- Name, address, and telephone number of the facility;
- Date, time, and type of incident (for example, fire, explosion);
- Name and quantity of materials involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- Estimated quantity and disposition of recovered material that resulted from the incident.

NSAB will note in the operating record the details of any incident that required implementing the contingency plan.

Appendix A
Spill Supplies

Permitted Storage Facility

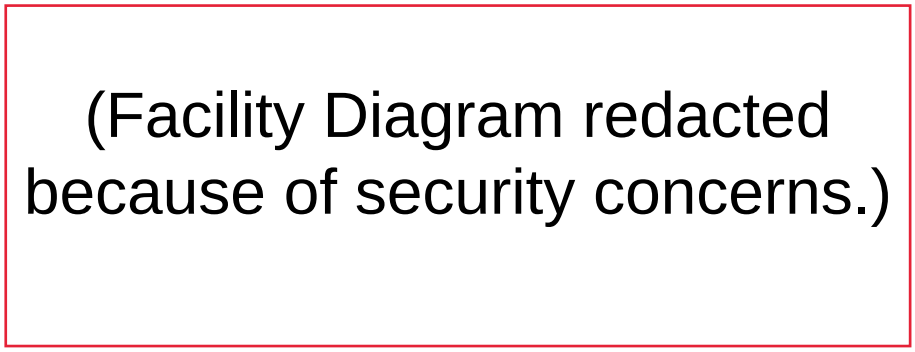
- Clay Absorbent - 2 bags
- Star Dust – 2 Bags
- Spill Diversion Booms – 10 feet
- Absorbent Pads,(Oil Only) – 1 Box
- Absorbent Pads,(Universal) – 1 Box
- Absorbent Pillows – 1 Box
- Vermiculite – 1 Bag
- 85 Gallon Overpack Drum – 1
- Mercury Spill Kit – 2
- Acid Spill Kit – 1
- Solvent Spill Kit – 1
- Caustic Spill Kit – 2

Less than 90 Day Accumulation Area

- Mercury spill kits – 2
- Battery acid spill kit – 1
- Chemical spill kit – 1
- Oil only sorbent pads – 1 box
- Oil dry sorbent – 1 bag
- Plastic shovel – 1
- Broom – 1
- Push broom – 1
- Acid control – 1 box
- Base control – 1 box
- Solvent absorb – 1 box
- Star dust – ½ bag
- Absorbent pigs – 1 bag
- Funnel – 2
- PVC boots – 2 boxes
- White Tyvek suits – 1 box
- Yellow Tyvek suits – 1 box
- Safety glasses – 1 box
- Nitrile gloves – 1 box
- First aid kit – 1
- Goggles – 3

Appendix B
Building 256 Evacuation Plan

REDACTED



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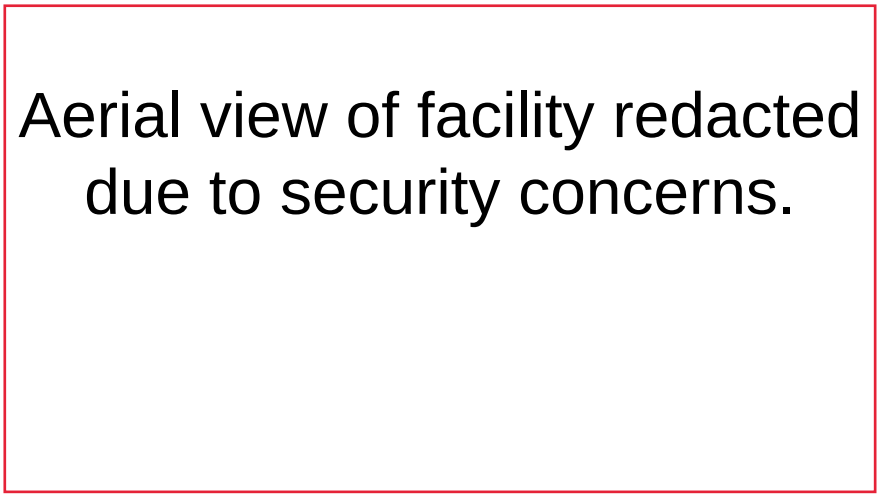

Appendix C
Building 55 Evacuation Plan

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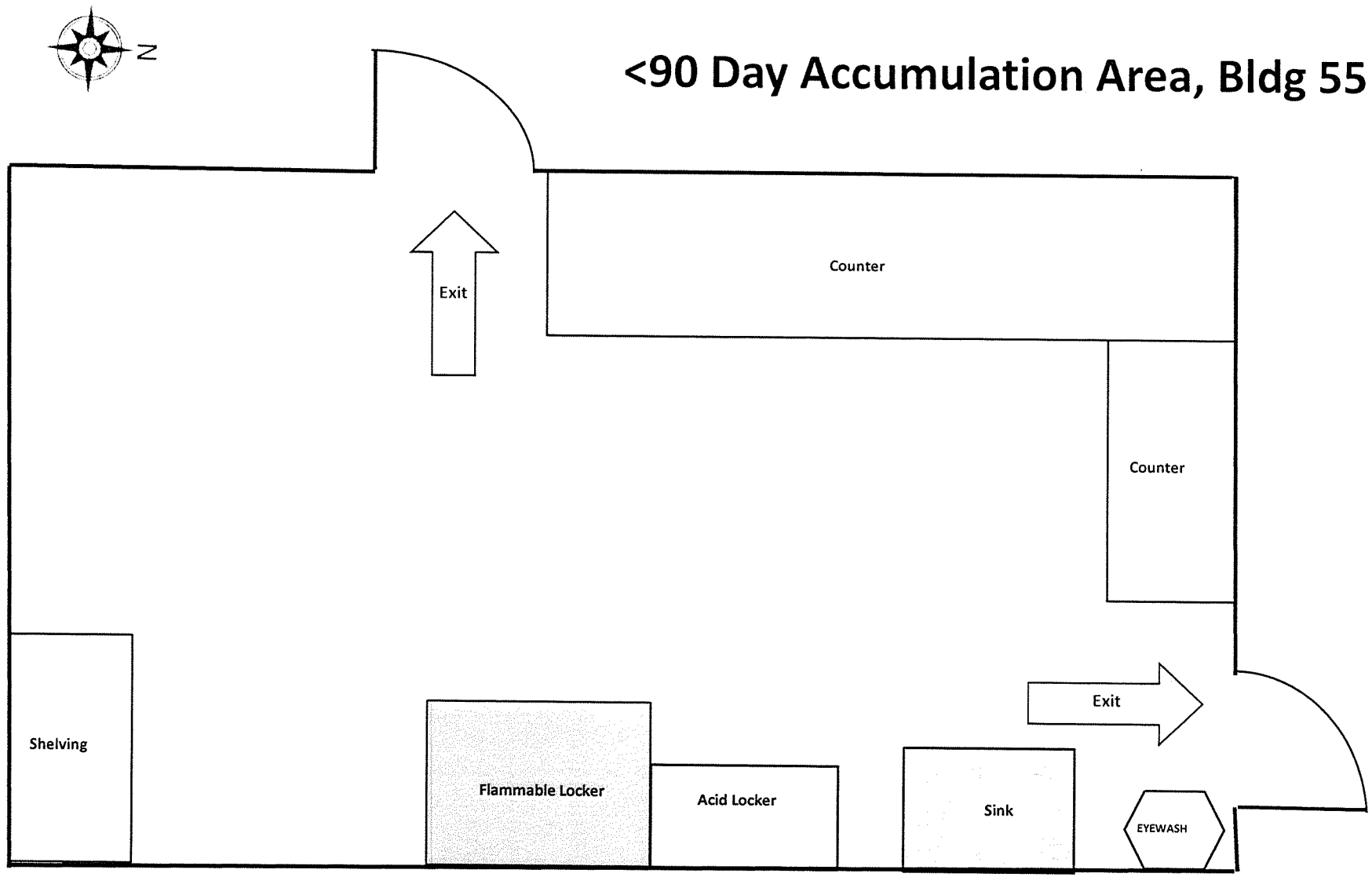
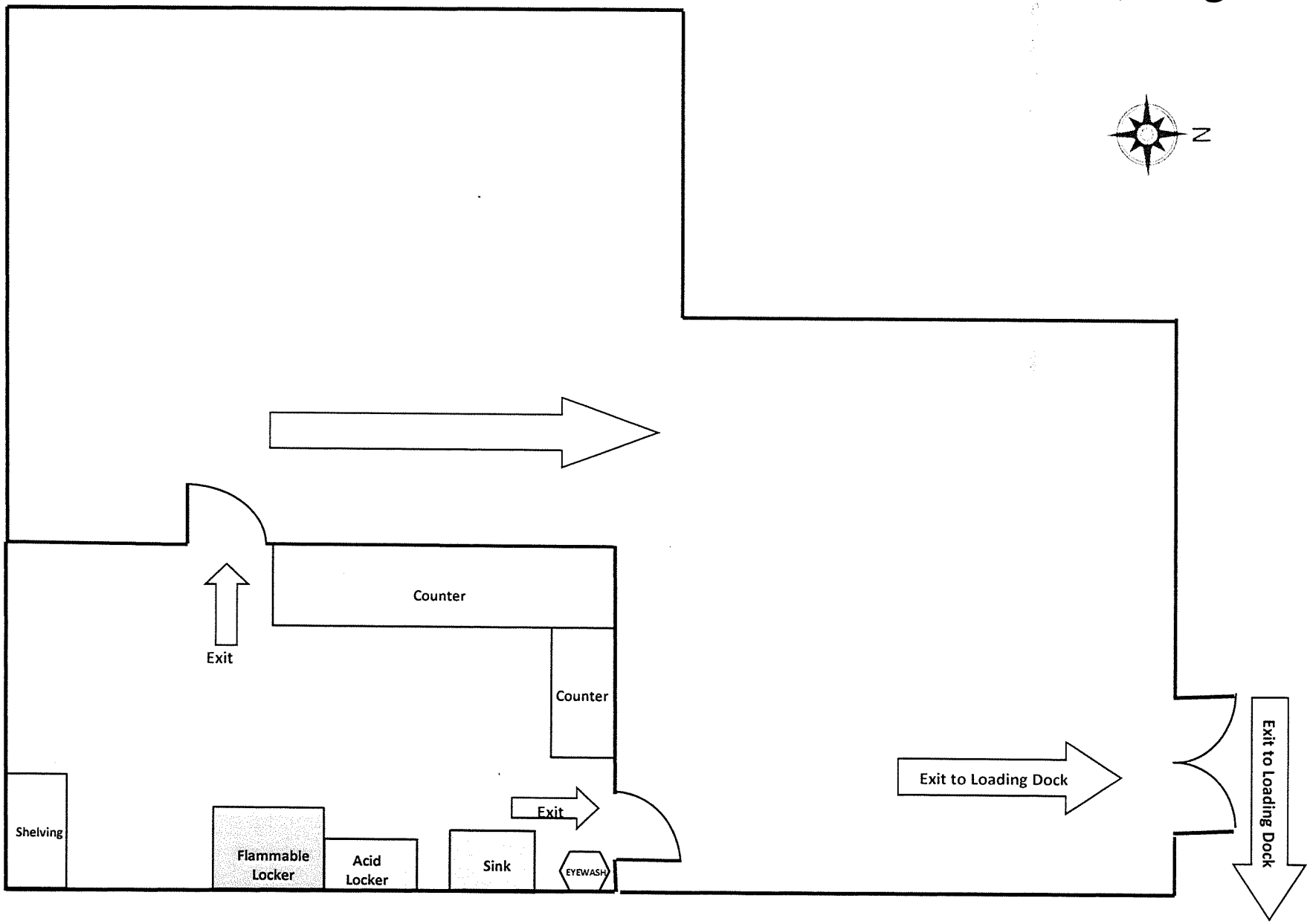
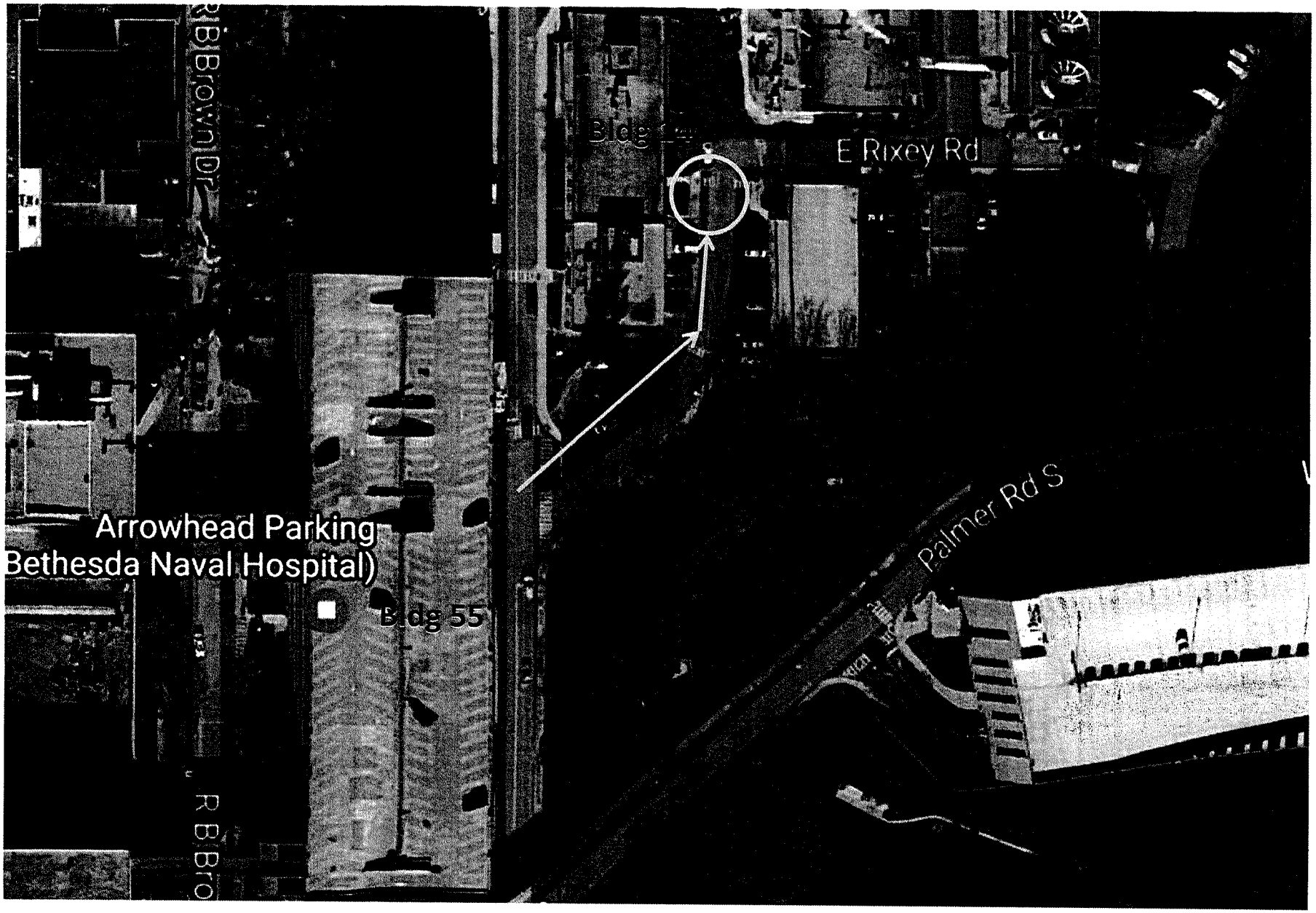


< J Day Accumulation Area, Bld. 55



0 Day Accumulation Area, Bldg 55



Appendix D
List of Satellite Accumulation Points

Generator	SAA Location		Typical HW Generated
	Building	Room	
Comprehensive Dentistry	1	REDACTED	Amalgam fillings and filters
Prosthodontics – Dental	1		Amalgam fillings and filters
Primary Care – Dental	2		Amalgam fillings and filters
Biomedical Repair	5		Batteries
Anatomic Laboratory	9		Ethanol, aqueous stains, xylene, Diaminobenzidine (DAB)
Anatomic Pathology	9		Ethanol, aqueous stains, xylene, DAB
Transplant Immunology	9		Batteries
Radiology – Fluoroscope	9		Barium stain
Maxillofacial – Dentistry	9		Amalgam filters
Pharmacy-Satellite	9		P-list drugs
Hematology	9		Methanol, wright stain
EMCOR	13		Used lamps (light bulbs), paint
Power Plant	16		Batteries
Department of Research Program Laboratory	17		Various HW
Department of Research Program Laboratory	17		Various HW
Dermatology	19		Acetone, organic acids
Chemotherapy Pharmacy	19		U-list drugs
Pharmacy - Main	19		P-list drugs
Supply	54		Used lamps (light bulbs), batteries
Chemistry Lab	17		Various HW
Gastroenterology	9		Acecide Use solution

N00171-20130115-008

DEPARTMENT OF THE NAVY
NAVAL DISTRICT WASHINGTON
WASHINGTON, D.C. 20371-5161

NDW
5000
Ser/N8/026
28 Jan 15

MUTUAL AID AGREEMENT
BETWEEN
COMMANDANT, NAVAL DISTRICT WASHINGTON, 1343 Dahlgren, SE, Bldg 1 WASHINGTON NAVY YARD, D.C. 20374-5004

AND
MONTGOMERY COUNTY , MARYLAND

ON BEHALF OF
COMMANDING OFFICER NAVAL SUPPORT ACTIVING BETHESDA AND COMMANDING OFFICER NAVAL SUPPORT ACTIVITY WASHINGTON

THIS MUTUAL AID AGREEMENT (hereinafter, the "Agreement") is made and entered into this 28 day of January 2015 by and between Commandant, Naval District Washington, (hereinafter, NDW), and Montgomery County, Maryland (hereinafter referred to as Montgomery County Fire and Rescue Service or "MCFRS") for firefighting and other related emergency assistance at Naval Support Activity Bethesda, (hereinafter, NSA Bethesda and Naval Support Facility Carderock or "NSF Carderock"). NSA Bethesda and NSF Carderock, are components of NDW, and are under the cognizant of the Commanding Officers. MCFRS is a department of Montgomery County, Maryland.

WITNESSETH:

WHEREAS, each of the Parties hereto maintains equipment and personnel for the suppression of fires, response to hazardous materials incidents, basic and advanced life support, special rescue events involving vehicular and water mishaps; and trench, building, and confined space extractions occurring within areas under their respective jurisdictions, and

WHEREAS, the Parties hereto desire to augment the fire protection, hazardous material response capabilities and other related emergency assistance capabilities available in their respective jurisdictions by entering into this Agreement, and

WHEREAS, the lands or districts comprising the respective jurisdictions of the Parties are adjacent or contiguous to one another such that the rendering of mutual assistance between the Parties in response to a fire or hazardous material incident is feasible, and

WHEREAS, it is the policy of the Department of the Navy and the Commandant, NDW to enter into Mutual Aid Agreements ("MAA") with non-Federal Fire Departments located in the vicinity of a Naval Installation, whenever practicable, and

WHEREAS, the Parties have mutually concluded that it is desirable, practicable, and beneficial for the Parties to enter into this Agreement to memorialize their willingness and ability to render assistance to one another, in order to enhance the safety and security of the civilian community and of NSA Bethesda and NSF Carderock.

NOW, THEREFORE, BE IT AGREED THAT:

1. Pursuant to 42 U.S.C. §1856a, DODI 6055.06, and OPNAVINST 11320.23G and § 7-104, Public Safety Article, Annotated Code of Maryland, the Parties enter into this Mutual Aid Agreement (MAA) to provide personnel and equipment required for fire prevention; the protection of life and property from fire; firefighting and suppression and other emergency services consisting of basic and advanced life support; hazardous material containment and confinement; special rescue events involving vehicular and water mishaps; and trench, building, and confined space extractions.

2. The senior officer of a Fire Department belonging to a Party of this Agreement, or the senior officer of such Fire Department actually present at a fire or hazardous material incident, may request firefighting assistance under the terms of this Agreement from the other Party's Fire Department, whenever he/she deems it necessary to make such a request.

3. The requesting and rendering of assistance from one Party to the other under the terms of this Agreement shall be accomplished in accordance with detailed operational plans and procedures, which shall be developed by each of the Parties. The technical heads of each Party's Fire Departments shall work together to implement such plans and procedures in a manner compatible with the operational authorities of each. In the absence of more specific procedures, the Parties will generally proceed as follows:

   a. The senior officer on duty of the Fire Department receiving a request for assistance shall take the following actions:

      i. Immediately determine if the requested apparatus and personnel are available to respond to the request.

      ii. In accordance with the terms of this Agreement, forthwith dispatch such apparatus and personnel, along with instructions as to their mission, use and deployment, in quantities and amounts as in the judgment of the senior officer receiving the call can be provided to the requesting Fire Department without jeopardizing the mission of the Fire Department providing such resources.

The senior officer of the Fire Department requesting assistance shall normally assume full charge of the operations at the scene of the fire or other emergency.

4. The rendering of assistance under the terms of this Agreement is voluntary and shall not be mandatory.

   a. The Party receiving a request for assistance shall endeavor to immediately inform the requesting Party if the requested assistance cannot be provided and, if assistance can be provided, the quantity of such resources as may be dispatched in response to such request.

   b. Neither Party shall hold the other Party liable or at fault for failing to respond to any request for assistance or for failing to respond to such a request in a timely manner or with less than optimum equipment and or personnel, it being the understanding of the Parties that each is primarily and ultimately responsible for the provision of fire suppression and hazardous material incident response needed within their own jurisdictions.

   The officers and personnel of the Fire Departments of the Parties to this Agreement are invited and encouraged, on a reciprocal basis, to frequently visit each other's activities for guided familiarization tours (consistent with local security requirements) and, as feasible, to jointly conduct pre-fire planning inspections, exercise/drills and training.

   c. Pursuant to 15 U.S.C. § 2210 and 44 C.F.R § 151 and § 7-104(c), Public Safety Article, Annotated Code of Maryland, MCFRS is entitled to obtain reimbursement from the appropriate federal authority for all or part of the cost of providing fire protection on property under the jurisdiction of the United States.

   d. Under the authority of 42 U.S.C. § 1856a, either Party may seek reimbursement from the other for the costs incurred by it in providing services to the other Party in response to a request for assistance.

5. As required by Federal and state laws, the Parties hereby waive all claims against the other Party for compensation of any loss, damage, personal injury, or death occurs in the performance of this Agreement.

The Parties hereto indemnify and save harmless each other from all third parties for property damage or personal injury, within the limitations permitted by applicable federal law that may arise out of the activities of the other Parties to the agreement.

TRAINING:

1. Whenever either Party hosts fire protection training for its own Fire Department ("Host Department") it may, to the maximum extent practicable and subject to its sole discretion, offer to provide the same training to members of the other Party ("Guest Department").

2. The Host Department will not charge the Guest Department for any training provided under the terms of this Agreement, unless it is a cost that cannot be covered by the Host Department such as, cost per student or cost of a certificate. Further, any such training will be provided on a space available basis only.

3. The Guest Department and/or its members will be solely responsible for the payment of any and all costs necessary for the Guest Department personnel to attend any training provided by the Host Department including, but not limited to, lodging, meals and travel.

4. This Agreement is entered into voluntarily by both Parties with no obligation on the part of either to provide such training to the other or, if such training is offered to the other Party, to participate in such training.

5. The Guest Department is responsible for ensuring that its members observe all rules, regulations, and guidelines established by the Host Department for training provided by the Host Department, as such rules, regulations and guidelines are made known to the Guest Department. Neither Party shall hold the other Party liable or at fault for damage or injury incurred during joint training activities.

6. The Host Department reserves the right to deny training to any member of the Guest Department who does not meet the prerequisites necessary to attend the training which is offered by the Host Department under the terms of this Agreement.

Execution of this Agreement:

This Agreement shall become effective upon the date annotated above, and shall remain in full force and effect until cancelled by mutual agreement of the Parties, or upon the provision of at least sixty (60) days advance written notice from the Party desiring to terminate this Agreement to the other Party. Upon becoming effective, this Agreement shall supersede all previous agreements between the Parties concerning the rendering of assistance from one to the other for the purposes stated in this Agreement.

This agreement may not be enforced until adopted and approved by the Montgomery County Council pursuant to Maryland Annotated Code, Criminal Procedures Art., Section 2-105(b) and Montgomery County Code, Section 2-17(d). The Montgomery County Council must approve any amendments, revisions, or renewals of this agreement. Any liability of the County is subject to the availability of funds and appropriation by the Montgomery County Council pursuant to Section 311, Charter of Montgomery County, Maryland (as amended).

Federal Anti- Deficiency Act. Nothing in this Agreement will be construed as obligating either the Navy, Naval District Washington or Naval Support Activity Bethesda, its officers, employees or agents to expend any funds in excess of appropriations authorized for such purposes in violation of the federal Anti-Deficiency Act (31 U.S.C. Section 1341).

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the parties hereto have made and executed this to the agreement on the respective dates under each signature.

C.P. MIEDZINSKI
Regional Fire Chief
Naval District Washington

1/13/2015
Date

DAVID SLUSHER
Comptroller
Naval District Washington

1/15/15
Date

THOMAS MCGUIRE
Executive Director
Naval District Washington

1/28/15
Date

For Montgomery County, Maryland:

Timothy L. Firestine
Chief Administrative Officer
Montgomery County, Maryland

12/16/14
Date

Fire Chief Steve Lohr
Montgomery County Fire and Rescue Service

12/4/2014
Date

Approved for form and legality:

Bernadette F. Lamson
Associate County Attorney

12/4/2014
Date

ATTACHMENT 5

CLOSURE PLAN

6. Closure Requirements (Permit Condition II.H)

This section addresses the permit application information of COMAR 26.13.07.02D(29), which requires a copy of the closure plan, and when applicable the post-closure plan required by COMAR 26.13.05.07C (Closure Plan) and H (Post-Closure Plan). COMAR 26.13.05.07H requires a written post-closure plan for hazardous waste disposal units. No on-site disposal will occur during the life of the storage facility and all hazardous waste, including PCBs, will be removed from Building 256 during closure; therefore, a post-closure plan is not included in this application. Also note that since NSA Bethesda will remove all hazardous waste from Building 256, a survey plat is not applicable as required by COMAR 26.13.05.07.F(2).

In addition, COMAR 26.13.07.02D(29), requires that the closure plan address specific requirements on COMAR 26.13.05.09I (Use and Management of Containers, Closure). COMAR 26.13.05.09I requires, at closure, that all hazardous waste and hazardous waste residues be removed from the containment system. Remaining container, liners, bases, and soil containing or contaminates with hazardous waste or hazardous waste residues shall be decontaminated or removed according to closure plans that remain on site for review.

If the hazardous waste management unit requires changes, NSA Bethesda will request a permit modification, including a copy of an amended closure plan, for approval at least 60 days before the proposed facility design or operational changes. If an unexpected event requires closure modification, NSA Bethesda will request an amendment to the plan according to COMAR.

The following sections address the information specified in COMAR 26.13.05.07C(2) (Content of Plan).

6.1. Hazardous Waste Storage Facility Closure Description

COMAR 26.13.05.07C(2)(a) and (b) require a description of how each hazardous waste management unit will be closed (partial closure) and the facility will be closed (final closure) in accordance with COMAR 26.13.05.07B (Closure Performance Standard), respectively. If no additional hazardous waste management unit replaces Building 256, this plan describes final closure.

Per COMAR 26.13.05.07B, this plan provides for closure in a manner which minimizes the need for further maintenance, and eliminates post-closure escape of hazardous waste or constituents, and prevents the release of any PCB containing material per 40 CFR 761.65(e).

NSA Bethesda will close the hazardous waste storage facility when Building 256 cannot meet environmental regulations or when the Navy does not require its use. Building 256 provides NSA Bethesda with the flexibility to efficiently manage the hospital's, the shops', and research activities' hazardous waste. Maintaining the containment system, support utilities, and equipment will prolong the structure's operating life.

Closure activities will be completed according to the plan and to COMAR. This plan will be maintained until NSA Bethesda closes the hazardous waste management unit and submits a certification of final closure as required by COMAR 26.13.05.07F (Certification of Closure). When Building 256's closure is appropriate, NSA Bethesda will:

1. Notify the Secretary in writing at least 45 days before the expected date on which closure of the container storage unit will begin (COMAR 26.13.05.07C(4)(a)(ii)).
2. Begin closure within 30 days after the date on which the container storage unit received the final volume of hazardous waste (COMAR 26.13.05.07C(4)(b)(i)).
3. Remove the hazardous waste inventory for disposal within 90 days after receiving the final volume of hazardous waste. (COMAR 26.13.05.07D(1)).
4. Transport wastes off-site to a permitted disposal facility.
5. If necessary, store newly generated wastes in accordance with generator requirements (COMAR 26.13.03) or storage requirements if a new 90-day storage facility is available.
6. Complete closure within 180 days after receiving the final volume of hazardous waste by decontaminating walls, shelves, berms, and floors as described in Section 2.3.7.3 (COMAR 26.13.05.07D(3)).
7. Submit to the Maryland Department of the Environment by registered mail, a certification that the facility has been closed in accordance with the specifications in the approved closure plan within 60 days of closure completion (COMAR 26.13.05.07F(1)) if closure of Building 256 represents final facility closure. An independent professional engineer will inspect the facility during and after closure, and will certify that closure has been conducted in accordance with this plan.
8. Remove hazardous waste and PCB warning signs from Building 256's exterior.
9. Dispose of Building 256 at the Navy's discretion (e.g., alternate use or demolition) at the completion of closure.

6.2. Maximum Inventory Estimate and Disposition

COMAR 26.13.05.07C(2)(c) requires an estimate of the maximum inventory of hazardous waste, a description of the method for removing hazardous wastes, and identification of the type of off-site hazardous waste management units to be used.

The maximum hazardous waste inventory that could be present in Building 256 as limited by regulations requiring 10 percent secondary containment of the hazardous waste, storage bay dimensions, 2-foot aisle space, and double stacking, is calculated in Table 2-1, to be 11,660 gallons.

Contracted personnel will conduct Building 256's closure. The waste inventory in Building 256 will be packaged into Department of Transportation (DOT) approved containers; packing procedures will follow those used in the normal operation of Building 256. Containers awaiting shipment will be staged until the transportation contractor removes them to a permitted off-site disposal facility. Packing operations will continue until all containerized waste has been removed from the facility.

6.3. *Hazardous Waste Residue and Contaminated System Decontamination Methods*

COMAR 26.13.05.07C(2)(d) requires a description of the steps to remove or decontaminate hazardous waste residues and contaminated containment system components.

When all hazardous waste is packed and removed, the contractor will begin decontaminating walls, floors, berms, shelves, and equipment according to the following procedures:

1. Spilled liquids will be absorbed and placed into 5-gallon or 55-gallon containers. Absorbents will be consolidated and collected to minimize dust generation.
2. Spilled solids will be collected and placed into containers, according to chemical compatibilities.
3. A mild basic solution will be applied, as necessary, to the walls, floors, shelves, berms, and equipment to neutralize acidic residues.
4. A mild acetic acid solution will be applied, as necessary, to the walls, floors, shelves, berms, and equipment to neutralize alkaline residues.
5. Spilled organic liquids will be absorbed and placed into appropriate containers. Areas contaminated by organic residues will be decontaminated by rinsing with an appropriate solvent (i.e., the solubility of the organic residue in the solvent will be five per cent or more by weight) until all visible traces of the residue are removed. Residues of acute toxic wastes will be triple-rinsed, at a minimum.
6. Neutralizing solutions will be removed by the most feasible method available, which may include hand pumping or vacuuming the solution into containers constructed of materials compatible with the waste.
7. A mild soap solution will be used to clean dirty surfaces. The soap solution and rinsate will be collected as previously described.
8. Visible foreign material will be removed (i.e., stains).
9. If PCB residues are detected, the contractor will decontaminate the affected area according to 40 CFR 761.120, Subpart G-PCB Spill Cleanup Policy.
10. All spent washes, debris, and contaminated equipment will be collected and placed into containers. The collected washes and debris will be sampled to determine the waste characterization and to determine appropriate off-site disposal. Three 500 millimeter-grab samples at various locations and depths within the containers will be collected and a composite sample will be submitted for analysis in a clean sample bottle. The wash/rinse water samples will be analyzed for:
    a) Total halogenated organics (TOX),
    b) Toxicity Characteristic Leaching Procedure (TCLP),
    c) PCBs (as needed),
    d) pH, and
    e) Flash Point (as needed to determine ignitability).
11. Containers of washes and debris will be temporarily staged in Building 256's replacement storage facility until disposal arrangements are completed.

12. Contaminated equipment will either be disposed of or will be decontaminated with an appropriate solvent. PCB contaminated equipment will be decontaminated according to 40 CFR 761.79 - Decontamination.
13. The extent of decontamination will be assessed through analysis of neutralizing wash/rinse solutions and, if necessary, PCB wipe samples, as discussed under Item 10. Decontamination will be considered complete when results of analysis of neutralizing wash/rinse solutions show containment levels below state requirement.

6.4. Other Closure Activities

COMAR 26.13.05.07C(2)(e) requires a description of other activities necessary during the closure period to ensure that closures satisfy the performance standards (e.g., ground-water monitoring, leachate control, run-on/run-off control).

Heat detectors and the explosion-proof ventilation system will continue to operate during closure. Building 256's elevated concrete foundation will control run-on and runoff during closure. Groundwater and unsaturated zone monitoring, and leachate and wind dispersal controls are not applicable to this facility.

6.5. Closure Schedule

With proper maintenance, Building 256 will have an indefinite life span as a hazardous waste storage facility. When closure is necessary, it will be performed according to the schedule presented below.

Activity	Schedule
Closure Notification	At least 45 days before the expected date on which closure of the container storage unit will begin
Closure Initiated	Within 30 days after the date on which the container storage unit received the final volume of hazardous waste
Hazardous Waste Inventory Removal and Transport Off Site	Within 90 days after receiving the final volume of hazardous waste
Closure Complete	Within 180 days after receiving the final volume of hazardous waste
Closure Certification (if closure of Building 256 represents final facility closure)	Within 60 days of closure completion

6.6. Closure Cost Estimate

The closure cost estimate for Building 256 has been prepared in accordance with COMAR 26.15.05.08 and 40 CFR 761.65(f).

Building 256's closure costs, detailed in Table 6-1, include the costs for purchasing neutralizing solutions, containers, sampling, laboratory analyses, transportation, and disposal. Costs will also be incurred for a registered professional engineer's closure certification. NSA Bethesda budgets

for hazardous waste packaging, staging, storing, transporting and disposal annually. When closure begins, routine contractual operations will provide for waste inventory management and disposal.

Closure costs, in 2016 dollars (Table 6-1), are based on the facility's maximum inventory. Since NSA Bethesda has removed all known PCB equipment from the installation, Building 256 is not expected to contain PCB waste at closure; disposal of a PCB inventory is not provided separately from disposal of the maximum hazardous waste inventory. Costs for sampling and analysis of residual PCB contamination are included in the closure cost estimate, because of past management of PCB wastes in Building 256.

Closure costs will be reviewed and adjusted annually, according to 40 CFR 264.143(b), by multiplying the latest adjusted closure cost estimate by the latest inflation factor published by the U.S. Department of Commerce.

6.7. Financial Assurance

The June 15, 1983 CHESNAVFACENGCOM letter to the State of Maryland addresses the financial requirements specified by COMAR 26.13.05.08. Section 6001 of Public Law 94-580, October 21, 1976, the Resource Conservation and Recovery Act of 1976, Subtitle F, Federal Responsibilities, requires all branches of the Federal Government having jurisdiction over or engaged in any activity that does or may result in the management or disposal of hazardous waste to comply with Federal, state, interstate, and local requirements to the same extent as any person who is subject to such requirements, including the payment of reasonable service charges.

Executive Order 12088, October 13, 1978, requires that the head of each executive agency will ensure that there will be sufficient funds requested in the agency budget to comply with applicable pollution control standards.

Chief of Naval Operations Instruction M5090.1, 01 January 2014 requires all Navy-wide facilities to be designed, operated, monitored, and maintained to conform with all established Federal, state, and local standards.

Financial requirements are not service charges. The choices of instruments provided in the regulations to meet the financial requirements are prohibited for Federal agencies' use. The second clause of 31 U.S. Code, Section 665A, Anti-Deficiency Act states, "nor shall any such officer or employee involve the government in any contract or other obligation, for the payment of money for any purpose, in advance of appropriations; made for such purpose, unless such contract or obligation is authorized by law." The choices of instrument are a letter of credit, a surety bond, or a trust fund; none are service charges.

Financial responsibility is in compliance with Congressional, executive, and agency mandates, as allowed.

6.8. Liability Requirements

The U.S. Navy accepts responsibility for sudden accidental occurrences that are directly or indirectly caused by or related to hazardous waste management activities at the NSA Bethesda's Building 256.

Table 6-1

Building 256 Closure Cost Estimate

Activity/Equipment	Quantity	Probable Cost	Worst-Case Cost
Removal/disposal of existing inventory.	1,000 gallons @ $66/gallon 11,660 gallons @ $66/gallon	$66,000 —	— $769,560
Neutralizing reagents and soap.	200 gallons @ $66/gallon	13,200	13,200
Rinse Water	250 gallons	0	0
Labor	32 hours @ $64/hour	2,040	2,040
Hand Pump	1 unit	292	292
Sampling Ignitability pH TCLP Volatiles or TOX PCB (wipe)	 4 @ 50 4 @ 42 4 @ 836 4 @ 418 5 @ 84	 200 168 3,344 1,672 420	 200 168 3,344 1,672 420
Rinse water disposal	440 gallons (8 drums x 55 gallon/drums) @ $501/drum	4,008	4,008
Safety Equipment		2,840	2,840
Equipment decontamination Pump & on-site equipment Labor	 1 unit 16 hours @ $84/hour	 1,344	 1,344
Engineering services during closure	20 hours @ $193/hour	3,860	3,860
Professional Engineer's certification		3,341	3,341
Post-removal costs		0	0
Total Closure Costs		**$102,729**	**$806,289**

ATTACHMENT 6

PROCESS INFORMATION

2.2. Process Information

2.2.1. Operating Procedures

As discussed in Section 2.1.1, there are many SAAs at NSA Bethesda where wastes are accumulated to no more than 55 gallons (the regulatory limit for SAAs under COMAR 26.13.03.05E(3)). SAA Operators are responsible for the safe management of the SAAs and coordinating with the EPD HW Manager and TSD Operator. The TSD Operator is a contractor at NSA Bethesda, who picks up the hazardous waste from each SAA location. The SAA

Operation notifies the TSD Operator to establish a hazardous waste pick up and the TSD Operator transports accumulated hazardous wastes from the SAAs directly to Building 256.

NSA BETHESDA manages one <90-day area at Hospital Building 55 and hazardous waste from the <90-day hazardous waste area is transported to the permitted facility at Building 256 prior to final transport off site. Hazardous wastes accumulated at the other <90-day area at USUHS's Building 74 are generally manifested and transported off site directly under USUHS's EPA Identification Number MD4972611111. Coordinators in these<90-day areas are responsible for the safe management of the areas, coordinating with the EPD HW Manager, and notifying the TSD Operator to establish a HW pick up.

The person generating the waste is most familiar with its composition; therefore, that person is responsible for identifying the waste contents and completing an internal manifest (See Figure 2-9) with a Safety Data Sheet, unless the TSD Operator states otherwise. If the waste is an out-of-date chemical, stored in its original container, the generator merely copies content information from the label onto the internal manifest. If the waste contents are unknown, the generator is responsible for obtaining laboratory analyses providing sufficient information to define the waste. NSA Bethesda's Waste Analysis Plan (See Section 3.3) describes analytical methods that can provide this information. Unknown wastes or materials are not accepted into Building 256 because of compatibility requirements.

Most hazardous wastes at NSA Bethesda are stored in their original containers. A large portion of the wastes is expired shelf-life reagents and research by products. User knowledge and manufacturer data allows these wastes to be stored in appropriate containers, whether the waste is liquid or solid. All the storage areas have some form of secondary containment, so management of hazardous wastes containing free liquids does not differ from management of solid wastes.

The TSD Operator arranges for the hazardous waste pick ups from the <90-day area and the SAAs, as requested. The TSD Operator reviews the internal manifest to verify that the waste is adequately described and stored in proper containers. Waste containers are then boxed for transport to NSA Bethesda's hazardous waste storage facility in Building 256.

At Building 256, operators weigh and label each container, place each container in its proper storage bay and shelf according to reactive group/compatibility chart, and then record the storage location. Operators generate a DD Form 1348-1A (See Figure 2-10). Data is updated weekly in the operator's computer inventory, providing a means to track the waste from the generation point to its final disposal. When Building 256 is in use and contains waste, the TSD Operator performs daily and weekly inspections to ensure that containers are intact and that building structures, and safety and emergency equipment are maintained.

After transport of the hazardous waste to Building 256, copies of the internal manifests remain with the EPD. When the hazardous waste pick-up is completed and data is entered into the computer, inventories are printed and kept at Building 256, EPD, and the fire department.

When the EPD consolidates sufficient quantities for cost-effective disposal, the TSD Operator notifies the Defense Logistics Agency (DLA) and forwards the DD Form 1348-1A to DLA. DLA is responsible for scheduling transportation and final disposal of NSA Bethesda's hazardous waste, through contracts with disposal companies.

NSA Bethesda has a waste minimization program in place, which includes source reduction and recovery, and recycling of certain materials. NSA Bethesda has an active Pollution Prevention

Program to identify and reduce waste stream generation throughout the NSA Bethesda complex. Waste storage is managed until disposal arrangements are implemented. Lead and other metals are sent for recovery/recycling.

Other measures being pursued to reduce the amount and toxicity of wastes at NSA Bethesda are:

- Source reduction through material substitution (e.g., citrus formulation for solvent degreaser), process changes, input material changes, technology changes, and improved operating and management practices;
- Better inventory control, including shelf-life monitoring, materials ordering guidelines, maintaining a store of available materials with remaining useful lives after expiration for original intended use;
- Recovery and recycling of used materials, and arranging for easy reuse of recovered/recycled materials; and
- Training personnel to more efficiently use chemicals, to practice source reduction, reuse, and recovery/recycling wherever possible.

2.2.2. Storage Area Specifications

Hazardous wastes are generated at several different locations at NSA Bethesda. These hazardous wastes are managed in SAAs and <90-day areas, and transported to Building 256, the hazardous waste storage facility, prior to disposal. Figure 2-11 shows the layout of Building 256. Figures 2-12, 2-13, and 2-14 provide pictures of the interior and exterior of Building 256.

Building 256 is a prefabricated metal structure sited on a masonry block foundation. Six inch containment berms encompass the inside perimeter of the building. The containment area is constructed without floor drains, expansion joints, sewer drains, or other openings permitting liquids to flow outside Building 256 (Figure 2-12). The floor is coated with an epoxy sealer, preventing spilled liquids from absorbing into the concrete floor.

2.2.2.1. Access

An 8-foot wide overhead door provides forklift access into the northwest side of Building 256. Concrete ramps enable forklifts to cross the containment berm at this entrance. The down ramp extends 6 feet into Building 256's interior as shown in Figure 2-12.

Two three-foot wide pedestrian entrances provide access into Building 256 from the northeast and southwest sides. No permanent interior ramps exist at these pedestrian doors.

2.2.2.2. Ventilation

Three screened louvers (2 feet x 2 feet) provide ventilation on both the east and west sides of the building. The louvers open pneumatically, providing passive ventilation, in response to an external thermostat. Building 256's eastern 2 feet x 2 feet screened ventilation louver, provides passive airflow into the flammables bay. A positive pressure fan draws make-up air through the flammables bay at a rate of 14,659 ft3/hr or 12 air changes per hour. Field measurements show that the main storage area exhaust system draws make-up air at a rate of 93,870 ft3/hr or 6.4 air changes per hour (See Figure 2-15). Exhaust air vents through the rear of Building 256.

2.2.2.3. Emergency Preparedness Equipment

Building 256 was designed and constructed and is maintained, operated and equipped to minimize the possibility of a fire, explosion, or other unplanned release of hazardous waste that could threaten human health or the environment. This facility was designed for and is equipped with the following:

- Explosion proof heating and ventilating systems.
- Epoxy coated floors and containment berms (recoated 2017).
- Explosion proof heat detecting fire alarm system.
- Three portable fire extinguishers.
- Spill containment equipment storage.

The explosion proof heat detecting system is comprised of seven ceiling detectors set at 140°F, six located throughout Building 256 and one located in Building 256's mechanical room. These detectors alarm NSA Bethesda's Fire Department, light a fire panel in Building 256, and ring a weather proof bell located on Building 256's west side exterior wall. Additionally, a pull station, which will mechanically activate the alarm system and the dry chemical fire extinguishing equipment, is located inside each pedestrian door. In the event of a power failure, the alarm system will function on battery backup.

2.2.2.4. Waste Segregation

Compatibility groups are stored in separate containment bays. Only those groups compatible with each other occupy any one containment bay at the same time. Hazardous waste compatibility is based on EPA's "A Method for Determining the Compatibility of Chemical Mixtures" (See Figure 3-1).

Wastes containing free liquids are identified visually; most hazardous wastes managed at NSA Bethesda are liquid, so all storage bays and shelving in Building 256 are equipped with secondary containment that meets the requirements of COMAR 26.13.05.09H.

2.2.2.5. Secondary Containment System

A 6-inch high berm encompasses the indoor perimeter of Building 256 and divides floor space into storage bays. Perimeter curbing was poured integrally with the floor slab; interior curbing, dividing storage bays, was joined to the epoxy coated floor by roughing the epoxy surface and sealing the curbs into place with a chemical resistant bonding agent. All curbing is epoxy coated providing a continuous seal with the floor coating. Details of the floor, foundation, and containment berms are shown in Figure 2-11.

2.2.2.6. Containment Bays

Floor space in Building 256 is divided into 10 containment areas, including an aisle, by 6-inch curbing. These storage bays provide secondary containment to hold potentially spilled wastes. Compatible wastes are segregated with in the same bay preventing the mixing of spilled wastes. Figure 2-11 shows Building 256's floor plan. Table 2-1 describes the wastes categories and maximum inventory capacity for each containment bay. Table 2-2 shows the available secondary containment capacities.

Table 2-1 Waste Categories and Maximum Inventory

Containment Bay	Waste Categories	Number of Drums[3]	Maximum Inventory (Gallons)
Bay 1	PCBs, Non-regulated Wastes Large Containers of Compatible Wastes	144	7,920
Bay 2	Flammable	24	1,320
Bay 3	Organics[4]	8	440
Bay 4	Caustics, Inorganic Caustic Salts	4	220
Bay 5	Cyanides, Sulfides	4	220
Bay 6	Isocyanates, Peroxides[5]	8	440
Bay 7	Metals	4	220
Bay 8	Oxidizers	8	440
Bay 9	Acids, Inorganic Salts	8	440
Total Maximum Inventory			**11,660**

Table 2-2 Secondary Containment Capacities

Storage Bay	Length (feet)	Width (feet)	Height (feet)	Capacity[6] (cu ft)	(gal)
Bay 1[7]	33.0	21.5	0.5	330.0	2,468
Bay 2	19.0	8.0	0.5	76.0	568
Bay 3	19.0	5.0	0.5	48.5	355
Bay 4	5.0	7.5	0.5	18.8	140
Bay 5	5.5	7.5	0.5	20.6	154
Bay 6	7.5	7.5	0.5	28.1	210
Bay 7	7.0	5.0	0.5	17.5	131
Bay 8	7.0	7.0	0.5	24.5	183
Bay 9	7.0	8.0	0.5	28.0	209
Aisle	22.5	6.0	0.5	67.5	505

Potentially reactive groups are separated by a mutually compatible or non-reactive group or by providing a buffer space between the groups. For example, caustic wastes will be stored in Bay

[3] Maximum inventory based on the number of 55-gallon drums that can be double stacked in the available storage bay dimensions with 2-foot aisle space.

[4] Organics include Aldehydes, Aliphatic and Aromatic Hydrocarbons, Cresols, Esters, Halogenated Hydrocarbons, Nitrated Organics, Organic Acids, and Phenols.

[5] Isocyanates and peroxides will be stored on opposite ends of Bay 6 in secondary containment such as a tub or similar device that provides positive separation of the two categories of chemicals and that is compatible with material. It is anticipated that any Isocyanates or peroxides would be in small quantities.

[6] Capacity (Cu. Ft.) = L x W x H; Capacity (Gallons) = Cu. Ft. x 7.48

[7] Bay 1's containment capacity is reduced by the entrance ramp's volume and by the emergency eyewash and shower area as follows:
Total volume: $(21.5 \text{ ft}) \times (33 \text{ ft}) \times (0.5 \text{ ft}) = 354.8 \text{ ft}^3$
Volume of ramp (assume triangular in shape): $\frac{1}{2} \times (6 \text{ ft} \times 8 \text{ ft} \times 0.5 \text{ ft}) = 12.0 \text{ ft}^3$
Volume of emergency shower and eyewash area: $(3.67 \text{ ft}) \times (7 \text{ ft}) \times (0.5 \text{ ft}) = \underline{12.8 \text{ ft}^3}$
Bay 1 containment capacity: $354.8 \text{ ft}^3 - 12 \text{ ft}^3 - 12.8 \text{ ft}^3 = 330.0 \text{ ft}^3$

4, located at the southern end of Building 256, and acidic wastes will be stored in Bay 9, located on the northern side of Building 256.

The flammables storage area, Bay 2, is a 2-hour fire-rated, totally enclosed room with a 3-foot wide pedestrian door. Epoxy coated, 6-inch high, concrete berms provide containment for the flammables bay. The large area, Bay 1, was designed for PCB transformer and other PCB-contaminated waste storage. The last two transformers were removed and disposed of in April 1992; hydraulic oil in machines and elevators at NSA Bethesda has been investigated for the presence of PCBs; and a program is in place to remove PCB-containing fluorescent light ballasts and those which are not labeled PCB-free. Bay 1 will not be limited to PCB storage, and will be used for the storage of large containers of compatible wastes, PCB-contaminated wastes, and 55-gallon drum storage. Aisle space allowing the unobstructed movements of personnel, fire protection equipment, spill control equipment, and decontamination equipment will be maintained. Incompatible wastes will not occupy Bay 1.

2.2.2.7. Shelving

Shelving provides storage space for small hazardous waste containers (usually less than one gallon). These plywood shelves, located in containment bays 2,3,4,6, and 9, are two feet in depth with a total of four shelves per unit. Each shelf is painted, providing a surface coating to assist in spill cleanup. The height of the top shelf, which is 78 inches from the floor, permits access to waste containers without using ladders, and therefore, minimizes the potential for accidents. However, waste containers are placed on the top shelf only when no additional space is available in that containment bay.

Shelves are ½-inch thick plywood with a 1.25-inch high plywood lip around the shelf; the lip reduces the potential of accidentally dropping a small container to the floor and will contain small spills on the shelf. Trays set under hazardous waste containers are designed with a raised, perforated interior platform to elevate the containers to prevent direct contact with spilled liquids on the shelf, and a small lip at the edge to provide for some secondary containment.

Table 2-3 provides the dimensions of the shelves for each bay in Building 256. The bottom shelf is elevated two inches off the floor, and also has a plywood lip; this reduces the possibility of containers on the bottom shelf coming in contact with spilled liquids on the floor of the bay.

Table 2-3 Waste Storage Location and Dimensions Of Shelves	
Containment Bay	**Unit Dimensions[8] (Length) x (Depth) x (Height)**
Bay 1	None
Bay 2	(5 ft) x (2 ft) x (6.3 ft)
Bay 3	(7 ft) x (2 ft) x (6.3 ft)
Bay 4	(4 ft) x (2 ft) x (6.3 ft)
Bay 5	None
Bay 6	(7 ft) x (2 ft) x (6.3 ft)
Bay 7	None
Bay 8	None
Bay 9	(5 ft) x (2 ft) x (6.3 ft)

2.2.2.8. Spills[9]

Inspections of Building 256 (See Section 2.3.6), which are performed daily when in use, allow for prompt identification and remediation of a hazardous waste spill. In the event of a hazardous waste spill, EPD personnel will assess the situation and follow operating procedures stated in the Contingency Plan. Laboratory analyses are not necessary to identify spilled liquids inside Building 256 because of NSA Bethesda's policy of accepting only known, properly labeled, wastes into Building 256 should permit personnel to immediately identify any spilled material. However, laboratory analysis may be used to determine when cleanup is completed.

Liquids spilled to the floor should not contact small storage containers placed on shelving. Large containers, usually 55-gallon drums, are stored on pallets that would prevent contact with spilled standing liquids. Since most hazardous waste managed by NSA Bethesda is packaged in small containers, the volume of spilled liquids would most likely be less than one gallon.

After safety precautions have been initiated, personnel place an absorbent, such as vermiculite, on the spilled liquids. Contaminated absorbent is then swept into storage containers. In the

[8] Each unit has 4 shelves spaced 26 inches apart with a 1.25-inch lip around each storage level.
[9] Section 7, Contingency Plan, provides an in-depth description of NSA Bethesda spill and emergency response plan.

event of a larger spill, personnel will invoke the Contingency Plan. Cleanup may include plugging a leaking 55-gallon drum, pumping spilled material into a proper container, or placing absorbent on spilled liquid and then sweeping the contaminated absorbent into a storage container.

Figure 2-9 NSA Bethesda Internal Hazmat Manifest

NSA BETHESDA INTERNAL HAZMAT MANIFEST

Answer all questions and sign. Send completed sheet to:

Environmental Programs Division (EPD), Bldg 27
301-295-2712 or 301-295-2496

INCOMPLETE AND/OR UNSIGNED SHEET(S) WILL BE RETURNED WITHOUT PROCESSING!

1. Generator: _____ Request date: _____
2. Orig. code: _____ Phone #: _____ Building: _____ Room: _____
3. Commercial name of material: _____
4. Mfr. company name: _____
5. Composition: (List ingredients and their respective percentages.)

Chemical Name	Percentage

6. Reason waste (Circle one) Spent Expired Spill Other (Specify) _____
7. Type of container(S): (e.g., Glass, Bottle, Can) _____
8. Container(s): Volume: _____ No. of Containers: _____ No. of Items: _____
9. Physical state of material: (Circle one) Solid Liquid Gas Other _____
10. Gross weight: (If known) _____ Pounds
11. Container condition: _____
12. HAZARDS: (CHECK ALL THAT APPLY) __FLAMMABLE __CORROSIVE (BASE, ACID) __ TOXIC __REACTIVE
13. To the best of my knowledge, this material is safe for transport and storage in an uncooled building. Material is not explosive and containers are sound. All known hazards are listed. An MSDS, LAB ANALYSIS, or WASTE PROFILE must accompany this form.

Print name _____ Signature _____ Date _____

14. EPD USE ONLY: Date in storage: _____ Item I.D. number: _____

Waste stream: _____ Compatibility code: _____ "FSC" code: _____

EPA Waste Code(s): _____ Clin number: _____

DOT name: _____ UN/NA: _____

Bay #: _____ Shelf #: _____ No. of containers: _____ Weight: _____ lbs

NOTES:

INSTRUCTIONS FOR THE INTERNAL HAZMAT MANIFEST

LINE EXPLANATION::

1. **GENERATOR** This is the originator of the request, who is also the point of contact for questions about the material being turned in for disposal.

   REQUEST DATE: This is the date the form was completed.
2. **ORIGINATOR CODE**: Organizational code of the generator.

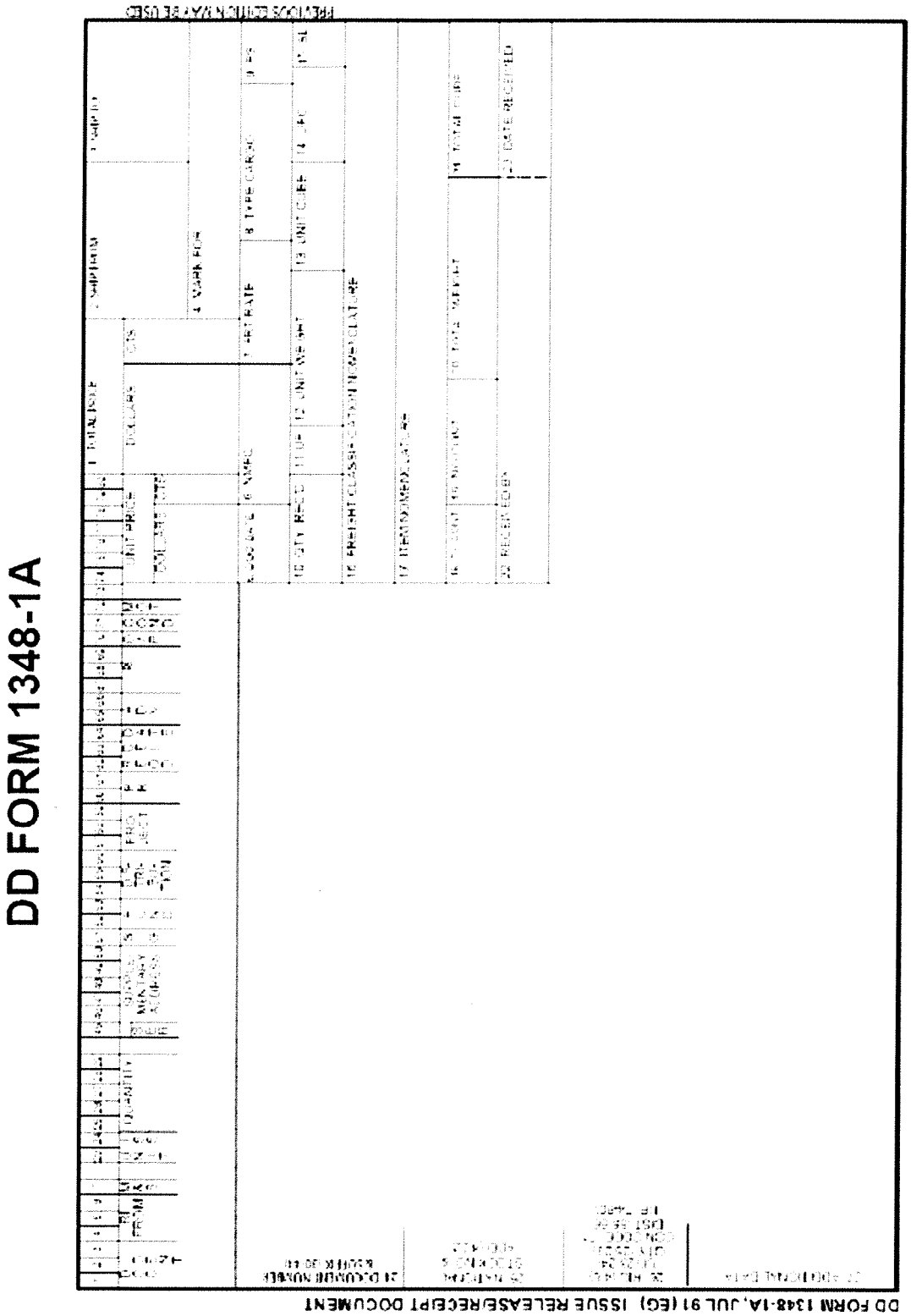
   PHONE NUMBER: Telephone number of the originator.

   BUILDING/ROOM: Building and room number where the material for disposal is located.
3. **COMMERCIAL NAME OF MATERIAL**: The company name of the material as it appears on the label.
4. **MFR. COMPANY NAME**: Generally found on the label. If the material was made, mixed, synthesized, or produced in house, write *"Produced In House"* and list the process and location that created the material, e.g., *Lab waste from Building 30, room 256).* **Additional information will be required to dispose of in-house material.**
5. **COMPOSITION**: List the material ingredients and their respective percentages, which must equal 100%. If more than one ingredient is listed, list them according to percentages, starting with the highest (e.g., acetone 60%, methanol 30%, water 10%). **If more space is required, continue on to a second page.**
6. **REASON WASTE**: Identify the reason for disposing of the material.
7. **TYPE OF CONTAINERS**: Specify the material the container is made of (e.g., metal, glass, plastic).
8. **CONTAINER VOLUME**: Specify the size of the container (e.g., 1 quart, 1 gallon, 55 gallon drum).

   NUMBER OF CONTAINERS: Specify the number of containers of the same material and the same size being disposed of (e.g., 2 ea 5 gal cans, 6 ea 1 gal cans).
9. **PHYSICAL STATE OF MATERIAL**: Specify if the material is a solid, liquid, gas, or paste.
10. **GROSS WEIGHT**: If known, enter the gross weight (container plus contents) in pounds. If not known, leave blank.
11. **CONTAINER CONDITION**: For example, "new," "good," "old but sound." Leaking, deteriorating, or questionable containers will not be accepted. All containers must have a proper closure installed.
12. **COMMENTS**: Any additional information that should be included concerning this material, such as unusual hazards or special handling and storage requirements, physical properties (e.g., flash, boiling, freeze points), chemical properties (e.g., water reactive, corrosive) that are needed to make a hazardous waste classification determination.
13. **NAME, SIGNATURE, DATE**: *PLEASE READ THE STATEMENT ON LINE 13.* Then, print your name on the line provided, sign the form, and date it. After this is complete, send the form to the location specified on the top of the form. **PLEASE NOTE: Failure to sign and date the form will cause an automatic rejection!**
14. **EPD USE ONLY**: Leave this section blank.

IF YOU NEED ANY ASSISTANCE, OR HAVE QUESTIONS,
PLEASE CALL 301-295-5679 or 301-295-5681.

Figure 2-10 DD Form 1348-1A



REDACTED

DIAGRAM OF FACILITY FLOOR PLAN
REDACTED DUE TO SECURITY
CONCERNS

REDACTED

FACILITY PHOTOS
REDACTED DUE TO
SECURITY CONCERNS

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FACILITY PHOTOS
REDACTED DUE TO
SECURITY CONCERNS

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FACILITY PHOTOS
REDACTED DUE TO
SECURITY CONCERNS

Figure 2-15 Building 256 Ventilation Survey -- October 2016

A. Flammable Storage Room (Bay 2)

(8 ft) x (19 ft) x (8 ft) = 1,216 ft^3

Exhaust Fan Design Specification (Bay 2)

(240 cfm) x (60 min) = 14,400 cfh

(14,400 cfh) / 1,216 ft^3 = 11.85 air changes/hour

Field Measurements

(244.3 cfm) x (60 min) = 14,659 cfh

14,659 cfh / 1,216 ft3 = 12 air changes per hour

Results: Field measurements verify design specifications.

B. Building 256 (Interior)

(30 ft) x (44 ft) x (12 ft) = 15,480 ft^3

Main storage area ventilated by exhaust fan (interior of Building 256 less flammables bay):

15,840 ft^3 - 1,216 ft^3 = 14,624 ft^3

Exhaust fan design specifications:

(1,700 cfm) x (60 min) = 102,000 cfh

(102,000 cfh) / (14,624 ft^3) = 6.97 air changes/hour

Field Measurements:

(1,564.5 cfm) x (60 min) = 93,870 cfh

(93,870 cfh) / (14,624 ft^3) = 6.42 air changes/hour

Results: Field measurements verify design specifications

ATTACHMENT 7

FACILITY DESCRIPTION

2. Design and Operation (Permit Condition II.A)

This section addresses the following permit application information:

- Facility Description in COMAR 26.13.07.02D(15);
- Traffic Information in COMAR 26.13.07.02D(23);
- Topography Information in COMAR 26.13.07.02D(6) and (35); and
- Prevention Procedures, Structures, and Equipment in COMAR 26.13.07.02D(22).

2.1. Facility Description

This section address the permit application information of COMAR 26.13.07.02D(15), which requires a general description of the facility. In addition, the section will describe the hazardous waste storage facility operating procedures and the storage area specifications to demonstrates compliance with COMAR 26.13.05.03B (Design and Operation of Facility), which requires that facilities be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or unplanned sudden release of hazardous waste or constituents to air, soil, or surface water that could threaten human health or the environment.

The NSA (Naval Support Activity) Bethesda's hazardous waste operating procedures describe how this facility manages hazardous waste at the point of generation, and when transported to and managed in Building 256, the hazardous waste storage facility. The operating procedures also describe how NSA Bethesda works in conjunction with a contractor to contract the transportation and final disposal of the hazardous waste.

2.1.1. General Description

NSA Bethesda is located at 8901 Wisconsin Avenue, Bethesda, Maryland, 20889, in Montgomery County. This facility, located at REDACTED latitude and REDACTED longitude, currently manages hazardous waste according to Maryland Department of the Environment (MDE) Controlled Hazardous Substances Facility Permit Number A-221, and EPA Identification Number MD4170024687. Figure 2-1 illustrates the geographic location of NSA Bethesda (1-mile radius).

NSA Bethesda is comprised of a Naval Hospital and its supporting activities (e.g., maintenance shops) in addition to the following tenant commands:

1.	AFRRI	Armed Forces Radiobiological Research Institute
2.	WRNMMC	Walter Reed National Military Medical Center
3.	NMETC	Naval Medical Education and Training Command
4.	USUHS	Uniformed Services University of the Health Sciences

Other environmental permits currently held by NSA Bethesda include a Title V Air Management permit for Fuel Burning Equipment, Special Medical Waste Generator permit, Oil Operations permit, and a Washington Suburban Sanitary Commission (WSSC) permit for industrial discharge.

Additionally, NSA Bethesda has two National Pollutant Discharge Elimination System (NPDES) permits: Permit I (MD 002567) is an industrial user discharge Permit, which monitors industrial discharges (i.e., steam condensate) at NSA BETHESDA; and Permit II (05-SF-5501) is a general discharge permit, which requires small and medium activities to implement six minimum stormwater control measures to improve the quality of waters of the state.

The hospital, tenant commands, and maintenance shops generate various types and quantities of hazardous wastes during their daily operations. The majority of hazardous wastes handled by NSA personnel are small quantity medical lab and research chemicals generated from standard medical laboratory testing and research experiments and from expired shelf life stocks. Medical and research laboratory activities require reagent grade chemicals. When experiments are complete, small amounts of unusable chemicals may remain and must be disposed of properly. The laboratories also generate hazardous waste as a by-product from their experiments. These wastes are characterized and turned over to trained personnel within the tenant command.

NSA Bethesda no longer generates PCB wastes. The last two PCB-containing transformers were removed from service in April 1992. Hydraulic oil has been investigated for PCBs and replaced as necessary. A program to remove all fluorescent light ballasts known to contain PCBs or which are not labeled PCB-free is ongoing. The hospital and select tenant commands employ SAAs and less than 90-day areas (<90-day areas) to manage hazardous waste prior to storage in the permitted facility at Building 256 or disposal off-site. These non-permitted areas are located as follows:

<90-Day Areas Managed Under 26.13.03.05E(1)

Hospital Building 55, REDACTED

SAAs[1] Managed Under COMAR 26.13.03.05E(3)

Comprehensive Dentistry, REDACTED

Prosthodontics- Dental B

Primary Care Dental, Bl

Biomedical Repair, Bld

Anatomic Laboratory, Blc

Anatomic Pathology, Bl

Transplant Immunology, I

Radiology, Bldg. 9,

Maxillofacial- Dentistry, I

Pharmacy, Bldg. 9,

Hematology, Bldg. 9,

J&J Worldwide, Blc

Power Plant, I

Dept. of Research Program Lab, REDACTED

REDACTED

SAAs[1]

[1] Waste transported directly to Building 256 from SAAs.

Managed Under COMAR 26.13.03.05E(3)

Dermatology, Bldg. REDACTED

Chemo Pharmacy, Bld

Pharmacy-Main, Bldg

Supply, Bl

Chemistry Lab, Bldg

Gastoenterology, Bld

Hazardous waste is accumulated at these sites until NSA Bethesda Environmental Program Department (EPD) personnel[2] transfer the waste to Building 256, where it is stored until disposal arrangements are implemented. All hazardous wastes generated and stored at NSA Bethesda are disposed of off-site at permitted treatment, storage, and disposal (TSD) facilities. NSA Bethesda does not dispose of or treat hazardous waste on site.

2.1.2. Traffic Information

This section address the permit application information of COMAR 26.13.07.02D(23), which requires information on traffic pattern, volume, and control (e.g., show turns across traffic lanes, and stacking lanes if appropriate, provide access road surfacing and load bearing capacity, show traffic control signals, provide estimates of traffic volume (number of types of vehicles)).

2.1.2.1. Access Road Surfacing and Load Bearing Capacity

REDACTED make up the primary entrance/exit route to Building 256. These are asphalt-paved roads, designed and constructed to support a gross vehicular weight of 70,000 pounds.

Hazardous waste is shipped for disposal in vehicles with a gross weight less than the designed maximum. Hazardous waste transferred from NSA Bethesda generators to Building 256 is usually by a Navy pick-up truck or by Navy 2-ton enclosed truck and never approaches the road's designed maximum. All roads used to transport waste from <90-day areas and SAAs to the hazardous waste storage facility in Building 256 are located on NSA Bethesda's contiguous property. No waste is transported on public thoroughfares until off-site transport, which is handled by a certified transporter contractor.

2.1.2.2. Traffic Volume, Pattern, and Control

Traffic volumes at NSA Bethesda have been estimated at about 2,300 vehicles during the morning peak hour and 2,400 vehicles during the afternoon peak hour. These vehicles are almost entirely automobiles. Traffic volume on Taylor Road is light and intermittent. Speed

[2] Throughout this permit application, EPD personnel means EPD staff, or their designated representatives/contractors.

limits are set at 15 miles per hour throughout the base and traffic control is accomplished with signs and other passive devices.

The internal transportation of hazardous waste routinely occurs on Thursday mornings between 0900 hours and 1100 hours, after peak traffic volumes have occurred. Intersections through which hazardous waste is transported provide clear visibility and adequate vehicular turning distances. Figure 2-2 shows NSA Bethesda traffic patterns and control devices.

2.1.3. Topography

This section address the permit application information of COMAR 26.13.07.02D(6) and (35). COMAR 26.13.07.02D (6) requires a topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source. In addition to Figure 2-1, which provides a topographic map extending one mile beyond the property boundaries, Figures 2-3 and 2-4 provide topographic maps showing the legal boundaries and the surrounding land use, respectively. Figures 2-5 and 2-6 show the area water supply wells and the wind rose for Ronald Reagan National Airport, Washington, DC.

NSA Bethesda is situated on the Glenelg and the Manor Soil Series. Building 256, the hazardous waste storage facility, is located in an area with Manor Silt loam soils, moderately eroded with 15 to 20 percent slopes adjacent and to the rear of the storage building. The Manor Series belongs to the Glenelg-Manor-Chester Association of moderately deep to deep soils. The Association consists of silty, micaceous, strongly-sloping soils.

NSA Bethesda lies at the southern edge of the Maryland Piedmont. The region is underlain by closely folded sedimentary rocks that have been metamorphosed by granite rocks. The structure generally trends northeast-southwest. The strike approximately parallels the fall line between the Piedmont and the overlapping Cretaceous Costal Plain sediments. The Baltimore anticlinorium forms a broad arch extending from Washington D.C. to the Susquehanna River with Baltimore at the apex. Geologic maps indicate that the facility lies in close proximity to the anticlinorium. The major geologic units in this area are characterized as Marburg and Lower Pelitic schist of the Wissahickon Formation (late Precambrian). The Lower Pelitic schist is a medium to coarse-grained biotiteoligoclase-muscovite-quartz-schist, fine-to-medium-grained semi pelitic schist and fine-grained granular psamatic granulite. The apparent thickness of the Lower Pelitic schist is about 5,500 feet or more.

The water-bearing zones of the Wissahickon Formation include various types of fractured/somewhat weathered schists (including Albite-chlorite, Marburg, and Pelitic Oligoclas-mica). Cleavage has a well-developed platy pattern of very close spacing. Jointing is present, but usually irregular, poorly formed, and widely spaced. Bedding is usually steeply dipping. Average yields of fifty gallons per minute or more can be realized from some shallow wells (approximately 150 feet deep) located on slopes or in draws. For optimum production, wells are generally advanced to approximately 300-feet deep in these areas.

2.1.4. Floodplain Standard (Permit Condition II.K)

COMAR 26.13.05.02-1B(1)(b) defines 100-year floodplain as any land area that is subject to a 1 percent or greater chance of flooding in any given year from any source. This section addresses the permit application information of COMAR 26.13.07.02D(26), which requires an identification of whether the facility is located within a 100-year floodplain. The hazardous waste storage unit is not located in the 100-year floodplain; therefore, the permit application

information required by COMAR 26.13.07.02D(27), which identifies information required for facilities located in a 100-year Floodplain, is not required.

The hazardous waste storage building is not located within the 100-year floodplain of Rock Creek (See Figure 2-7, Flood Insurance Rate Map (FIRM), Montgomery County, Maryland (Unincorporated Areas), Community-Panel Number 240049 0175 C, Federal Emergency Management Agency (FEMA), 1984). The creek, which is located about 1,000 feet north on the opposite side of Interstate 495, has a 100-year flood elevation of between 211 and 212 feet above National Geodetic Vertical Datum (NGVD) in the vicinity north of NSA Bethesda.

Rock Creek's tributary, Stoney Creek, passes through NSA Bethesda's facility. At its closest point, Stoney Creek flows about 250 feet from Building 256. Figure 2-7 do not cover Stoney Creek; therefore the approximate extent of the Stoney Creek's 100-year floodplain was excerpted from facility planning maps and is shown in Figure 2-8. Because of the stream's steep slopes (15 to 20 percent), the extent of the floodplain is rather narrow, and its closest approach to Building 256 is about 200 feet. Elevations extracted from the topographic map, Figure 2–4, indicate the following:

Elevation of Building 256	250 feet above NGVD
Elevation of Stoney Creek 100-year floodplain near Building 256	215 feet above NGVD
Differential Elevation Building 256 and Stoney Creek's 100-year floodplain	35 feet

The approximate extent of Stoney Creek's 100-year floodplain does not approach Building 256 (Figure 2–8).

2.1.5. Security (Permit Condition II.L)

This section addresses the permit application information of COMAR 26.13.07.02D(18), which requires a description of the security procedures and equipment required by COMAR 26.13.05.02E (Security).

2.1.5.1. Unknowing/Unauthorized Entry Prevention/Minimization

COMAR 26.13.05.02E(2) requires a facility to prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of the facility by having:

a) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel; or

b) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

c) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

This section describes the means that NSA BETHESDA uses to prevent the unknowing entry, and minimize the unauthorized entry, of persons and livestock onto the active portion of the hazardous waste storage facility.

Entry Control and Monitoring by 24-Hour Security Forces

NSA Bethesda is protected REDACTED

REDACTED

Bethesda Fire Department and local ambulance squads.

Prefabricated Metal Structure

Building 256 is a prefabricated metal structure comprised of two metal pedestrian access doors, a steel overhead garage door, and no windows. Unauthorized and unknowing access to the active portion of Building 256 is prevented by the building itself and by these locked doors.

Locked Doors

Access to Building 256 is restricted except when performing daily inspections, which are performed when the building is in use, when moving hazardous wastes either into or out of this facility, or during an emergency. The EPD personnel, who manage NSA Bethesda's hazardous waste storage unit, the security department, and the base fire department, retain keys to Building 256.

Locked Traffic Barriers

Building 256 is located on NSA Bethesda's Roads and Grounds Section. This area is closed to vehicular traffic during non-working hours. Locked barriers preventing access are located on Tyler Road and on Perimeter Road.

2.1.5.2. Unauthorized Signs

COMAR 26.13.05.02E(3) requires a sign indicating that only authorized personnel are allowed and that entry onto the active portion can be dangerous.

Warning signs with the legend, "Danger – Unauthorized Personnel Keep Out" are posted at every entrance and at the rear of Building 256; signs are posted on all four sides to prevent unknowing entry into this facility. All warnings are readily visible from a distance of at least 25 feet. PCB warning labels and "No Smoking" signs are posted at each entrance.

Figure 2-1 Naval Support Activity (NSA) Bethesda, Bethesda, MD

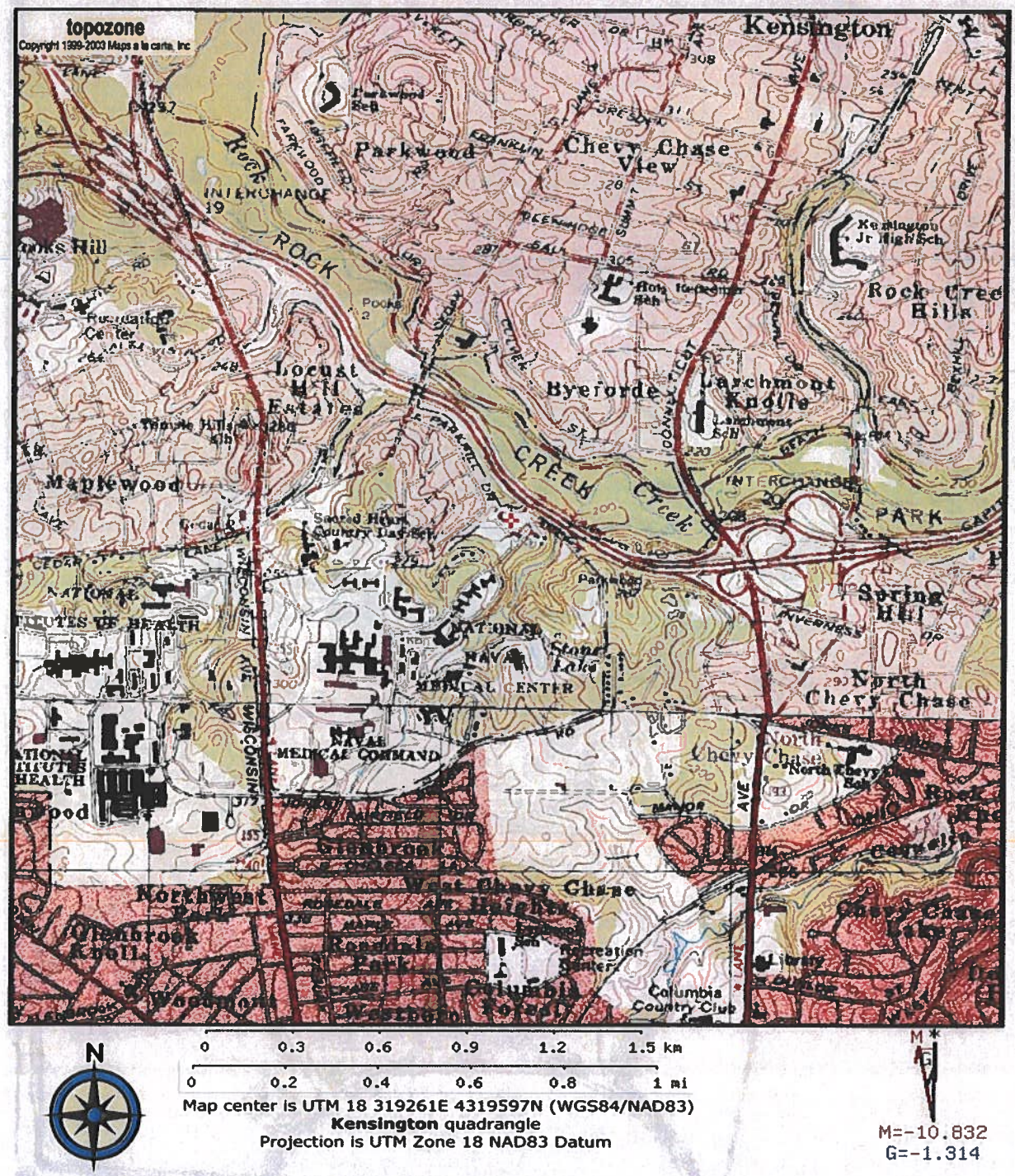


Figure 2-2 Traffic Patterns and Control

REDACTED

INSTALLATION MAP REDACTED DUE TO SECURITY CONCERNS

Figure 2-3 NSA Bethesda Legal Boundaries Topographic Map

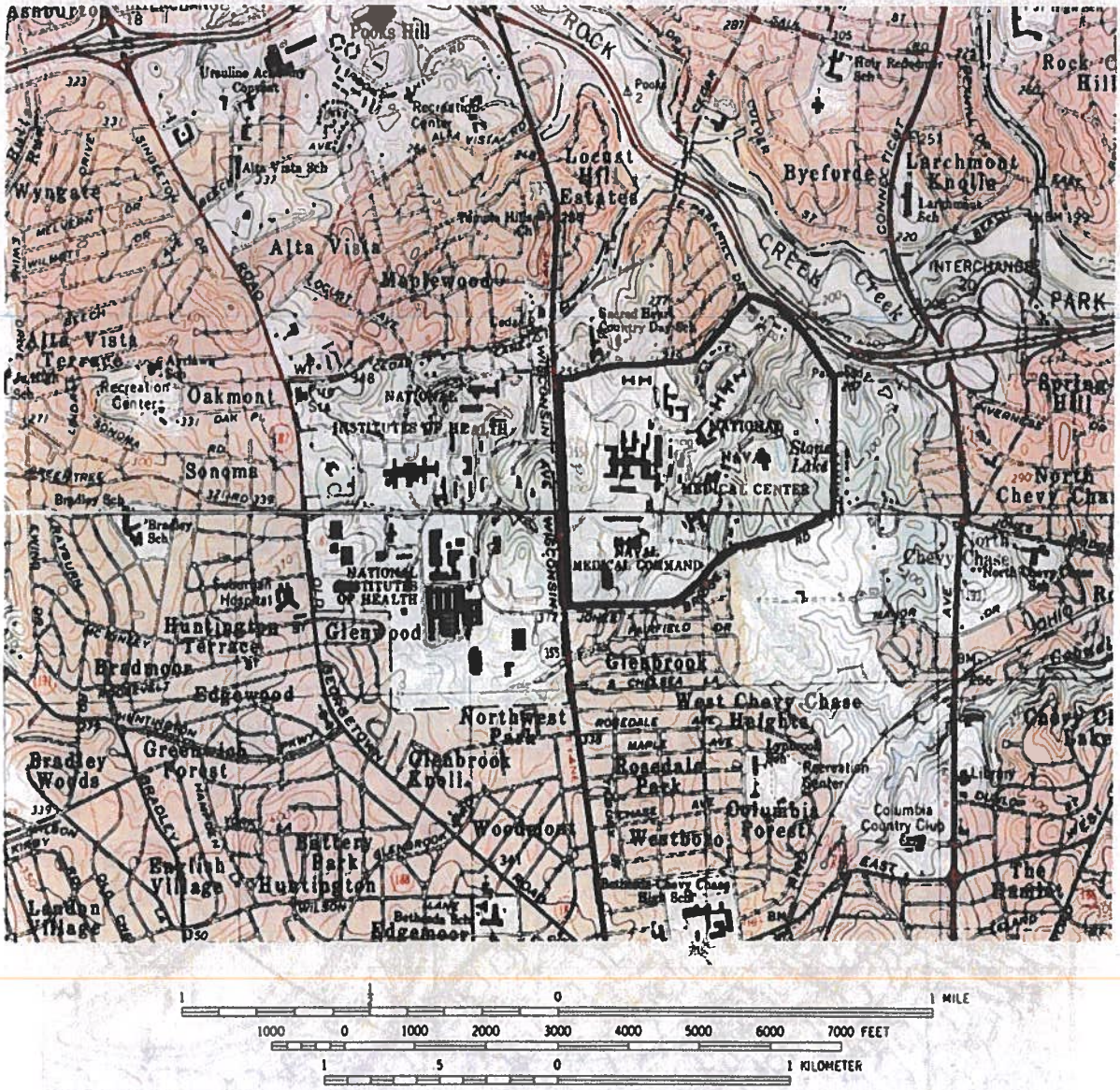


Figure 2-4 Surrounding Land Topographic Map

Figure 2-5 Water Supply Wells

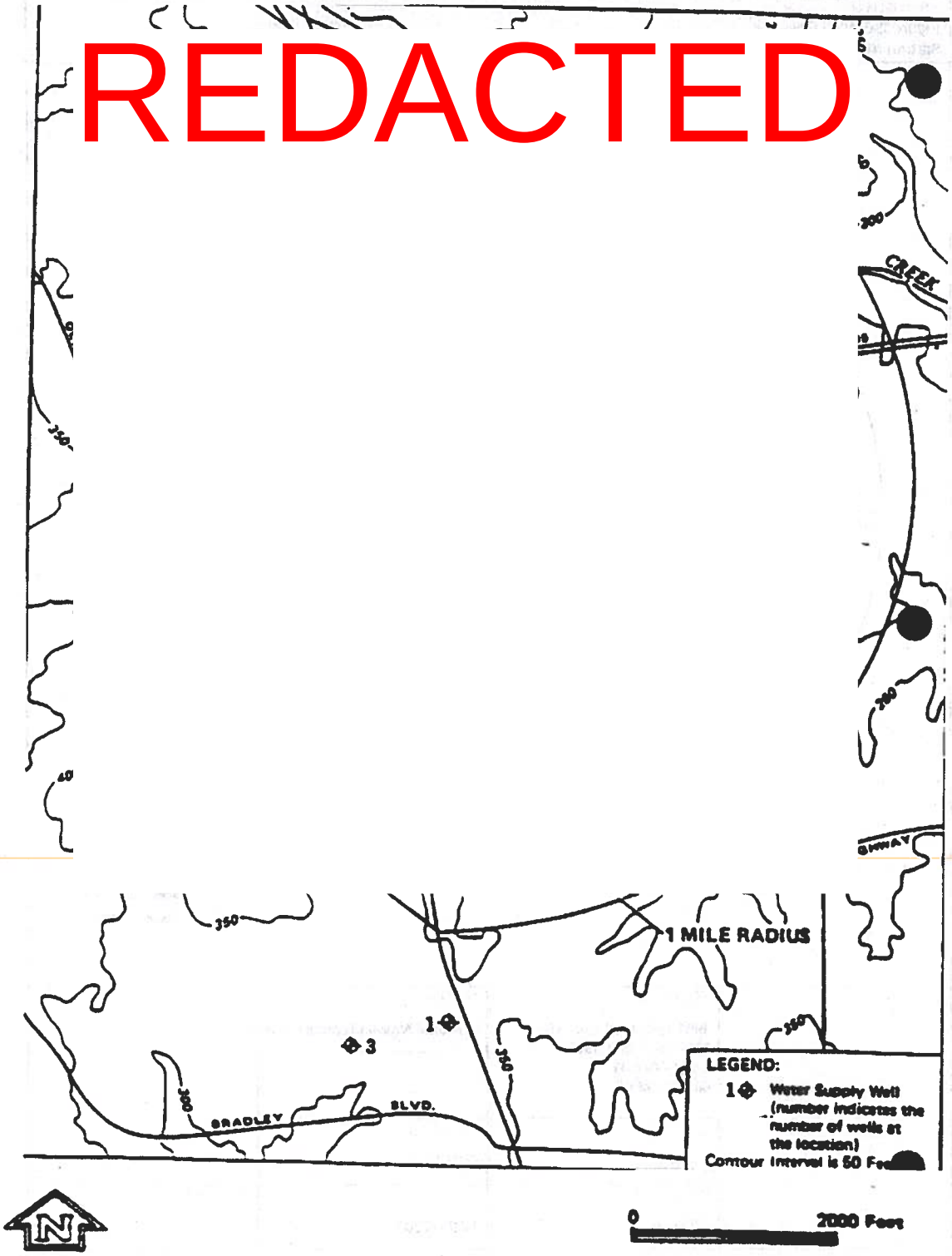


Figure 2-6 Wind Rose

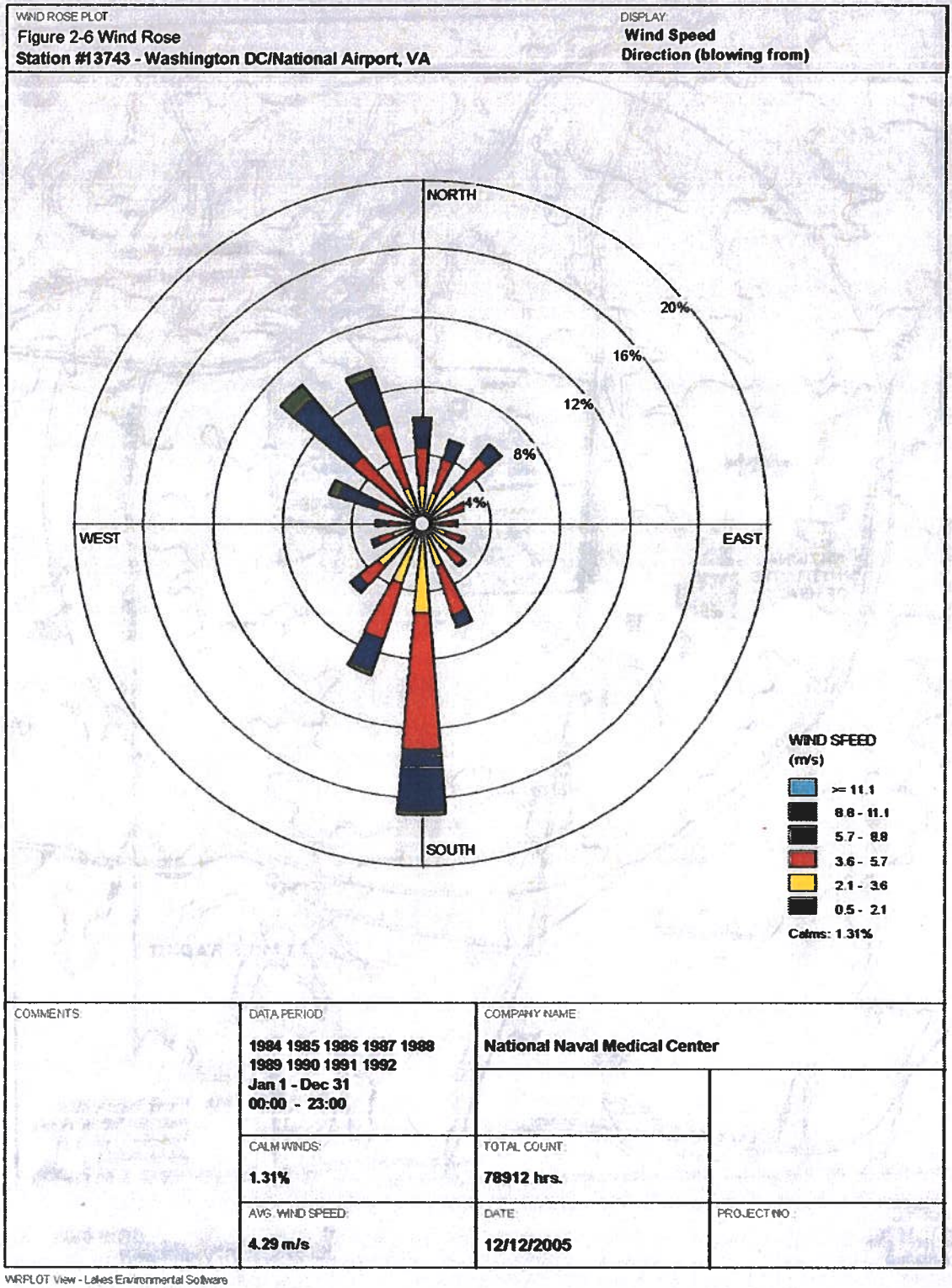
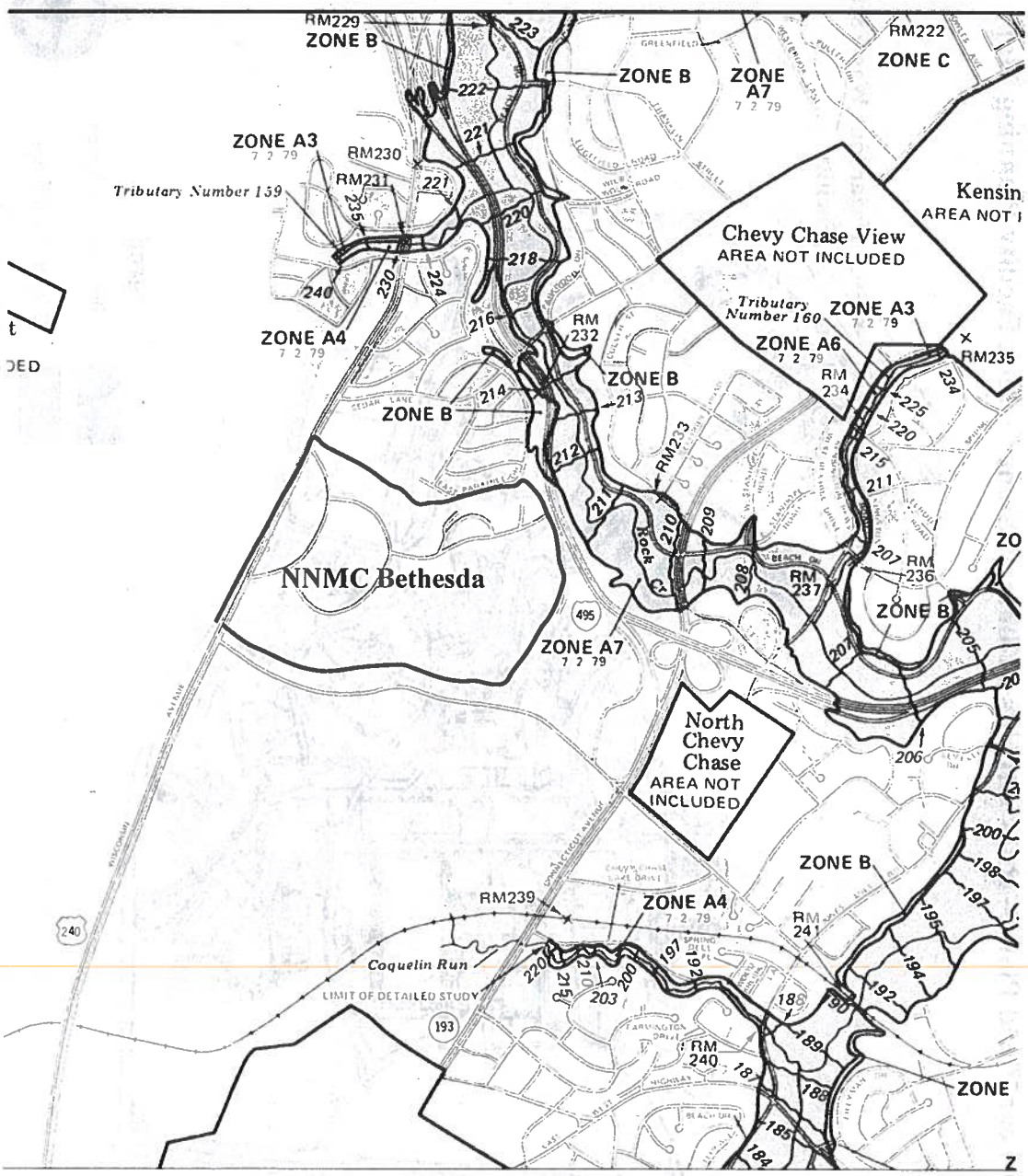


Figure 2-7 100-Year Flood Plain – Rock Creek



Map Source:
Flood Insurance Rate Map
Montgomery County, Maryland (Unincorporated Areas)
Community-Panel Number 240049 0175 C
Federal Emergency Management Agency (FEMA), 1984.

APPROXIMATE SCALE
2000 0 2000

REDACTED

FACILITY MAP
REDACTED DUE TO
SECURITY CONCERNS

ATTACHMENT 8

PERMIT APPLICATION PART A

OMB# 2050-0024; Expires 05/31/2020

United States Environmental Protection Agency
RCRA SUBTITLE C SITE IDENTIFICATION FORM

1. Reason for Submittal (Select only one.)

☐	Obtaining or updating an EPA ID number for an on-going regulated activity that will continue for a period of time. (Includes HSM activity)
☐	Submitting as a component of the Hazardous Waste Report for _____ (Reporting Year)
	☐ Site was a TSD facility and/or generator of > 1,000 kg of hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations)
☐	Notifying that regulated activity is no longer occurring at this Site
☐	Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities
☑	Submitting a new or revised Part A Form

2. Site EPA ID Number

M	D	4	1	7	0	0	2	4	6	8	7

Site Name

NSA Bethesda, Environmental Programs Division

4. Site Location Address

Street Address: 4655 Taylor Road, Bldg. 27, 2nd Floor		
City, Town, or Village: Bethesda		County: Montgomery
State: MD	Country: USA	Zip Code: 20889

5. Site Mailing Address

☑ Same as Location Address

Street Address: 4655 Taylor Road, Bldg. 27, 2nd Floor		
City, Town, or Village: Bethesda		
State: MD	Country: USA	Zip Code: 20889

6. Site Land Type

☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)

A. (Primary)	622110	C.	621511
B.	339116	D.	

8. Site Contact Information

☑ Same as Location Address

First Name **Susan**	MI	Last Name **Paul**
Title **EPD Head**		
Street Address **4655 Taylor Road, Bldg. 27, 2nd Floor**		
City, Town, or Village **Bethesda**		
State **MD**	Country **USA**	Zip Code **20889**
Email **susan.paul@navy.mil**		
Phone **301-295-2482**	Ext	Fax

9. Legal Owner and Operator of the Site

A. Name of Site's Legal Owner

☑ Same as Location Address

Full Name NSA Bethesda	Date Became Owner (mm/dd/yyyy) 12/24/1987
Owner Type ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other	
Street Address	
City, Town, or Village	
State / Country / Zip Code	
Email	
Phone / Ext / Fax	
Comments	

B. Name of Site's Legal Operator

☑ Same as Location Address

Full Name NSA Bethesda	Date Became Operator (mm/dd/yyyy)
Operator Type ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other	
Street Address	
City, Town, or Village	
State / Country / Zip Code	
Email	
Phone / Ext / Fax	
Comments	

1. Type of Regulated Waste Activity (at your site)

Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

A. Hazardous Waste Activities

☑ Y ☐ N	1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c		
	☑	a. LQG	-Generates, in any calendar month (includes quantities imported by importer site) 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste; or - Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or - Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.
	☐	b. SQG	100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material.
	☐	c. VSQG	Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste.
If "Yes" above, indicate other generator activities in 2 and 3, as applicable.			
☐ Y ☑ N	2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section.		
☐ Y ☑ N	3. Mixed Waste (hazardous and radioactive) Generator		
☑ Y ☐ N	4. Treater, Storer or Disposer of Hazardous Waste—Note: A hazardous waste Part B permit is required for these activities.		
☐ Y ☑ N	5. Receives Hazardous Waste from Off-site		
☐ Y ☑ N	6. Recycler of Hazardous Waste		
	☐	a. Recycler who stores prior to recycling	
	☐	b. Recycler who does not store prior to recycling	
☐ Y ☑ N	7. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply.		
	☐	a. Small Quantity On-site Burner Exemption	
	☐	b. Smelting, Melting, and Refining Furnace Exemption	

B. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D006	D011	D022	D029	D034	D039
D002	D007	D018	D025	D030	D035	D040
D003	D008	D019	D026	D031	D036	D041
D004	D009	D020	D027	D032	D037	D042
D005	D010	D021	D028	D033	D038	D043

C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes. Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

MT01	MX01					
M001						

MD4170024687
Waste Codes for Federally Regulated Hazardous Wastes (continued)

F001	F002	F003	F004	F005	F027	P008	P011	P012	P014	P015	P022
P030	P033	P042	P043	P047	P048	P072	P077	P087	P089	P098	P105
P106	P108	P116	P120	U001	U002	U003	U004	U006	U007	U008	U009
U012	U019	U021	U031	U037	U044	U045	U052	U055	U056	U057	U069
U070	U071	U072	U075	U076	U077	U080	U102	U103	U108	U112	U115
U117	U119	U121	U122	U123	U124	U133	U136	U138	U140	U151	U154
U162	U163	U165	U170	U185	U188	U196	U200	U211	U213	U220	U226
U227	U236	U246	U247	U326	U328						

Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)

A. Other Waste Activities

☐ Y ☑ N	1. Transporter of Hazardous Waste—If "Yes", mark all that apply.
☐	a. Transporter
☐	b. Transfer Facility (at your site)
☐ Y ☑ N	2. Underground Injection Control
☐ Y ☑ N	3. United States Importer of Hazardous Waste
☐ Y ☑ N	4. Recognized Trader—If "Yes", mark all that apply.
☐	a. Importer
☐	b. Exporter
☐ Y ☑ N	5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If "Yes", mark all that apply.
☐	a. Importer
☐	b. Exporter

B. Universal Waste Activities

☐ Y ☑ N	1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If "Yes" mark all that apply. Note: Refer to your State regulations to determine what is regulated.
☐	a. Batteries
☐	b. Pesticides
☐	c. Mercury containing equipment
☐	d. Lamps
☐	e. Other (specify) _____
☐	f. Other (specify) _____
☐	g. Other (specify) _____
☐ Y ☑ N	2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities

☐ Y ☑ N	1. Used Oil Transporter—If "Yes", mark all that apply.
☐	a. Transporter
☐	b. Transfer Facility (at your site)
☐ Y ☑ N	2. Used Oil Processor and/or Re-refiner—If "Yes", mark all that apply.
☐	a. Processor
☐	b. Re-refiner
☐ Y ☑ N	3. Off-Specification Used Oil Burner
☐ Y ☑ N	4. Used Oil Fuel Marketer—If "Yes", mark all that apply.
☐	a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
☐	b. Marketer Who First Claims the Used Oil Meets the Specifications

12. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR 262 Subpart K.

☐ Y ☑ N	A. Opting into or currently operating under 40 CFR 262 Subpart K for the management of hazardous wastes in laboratories—If "Yes", mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities.
☐	1. College or University
☐	2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university
☐	3. Non-profit Institute that is owned by or has a formal written affiliation with a college or univer-
☐ Y ☑ N	B. Withdrawing from 40 CFR 262 Subpart K for the management of hazardous wastes in laboratories.

13. Episodic Generation

☐ Y ☑ N	Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If "Yes", you must fill out the Addendum for Episodic Generator.

14. LQG Consolidation of VSQG Hazardous Waste

☐ Y ☑ N	Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If "Yes", you must fill out the Addendum for LQG Consolidation of VSQGs hazardous waste.

15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)

☐ Y ☑ N	LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility.
	A. ☐ Central Accumulation Area (CAA) ☐ Entire Facility
	B. Expected closure date: _____ mm/dd/yyyy
	C. Requesting new closure date: _____ mm/dd/yyyy
	D. Date closed : _____ mm/dd/yyyy ☐ 1. In compliance with the closure performance standards 40 CFR 262.17(a)(8) ☐ 2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8)

16. Notification of Hazardous Secondary Material (HSM) Activity

☐ Y ☑ N	A. Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material.
☐ Y ☑ N	B. Are you notifying under 40 CFR 260.43(a)(4)(iii) that the product of your recycling process has levels of hazardous constituents that are not comparable to or unable to be compared to a legitimate product or intermediate but that the recycling is still legitimate? If "Yes", you may provide explanation in Comments section. You must also document that your recycling is still legitimate and maintain that documentation on site.

17. Electronic Manifest Broker

☐ Y ☑ N	Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator?

Comments (include item number for each comment)

19. Certification I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11).**

Signature of legal owner, operator or authorized representative REDACTED	Date (mm/dd/yyyy) 12/04/2018
Printed Name (First, Middle Initial Last) Susan F Paul	Title Installation Environmental Programs Director
Email susan.paul@navy.mil	

Signature of legal owner, operator or authorized representative	Date (mm/dd/yyyy)
Printed Name (First, Middle Initial Last)	Title
Email	

United States Environmental Protection Agency

HAZARDOUS WASTE PERMIT PART A FORM

1. Facility Permit Contact

First Name	Susan	MI	Last Name Paul
Title	EPD Head		
Email	susan.paul@navy.mil		
Phone	301 295 5623	Ext	Fax

2. Facility Permit Contact Mailing Address

Street Address	4655 Taylor Road, Bldg. 27, 2nd Floor	
City, Town, or Village	Bethesda	
State MD	Country USA	Zip Code 20889-5600

3. Facility Existence Date (mm/dd/yyyy)

12/24/1987

4. Other Environmental Permits

A. Permit Type	B. Permit Number	C. Description
E	A-22 1	Controlled Hazardous Substances Permit
N	05-SF-5501	NPDES Permit II- Gen'l Discharge Permit
N	MD0025670	NPDES Permit I-Industrial User Discharge
E	24-031-0124A	Title V Air Mgmt.- Fuel Burning Equip.
E	2005-OPT-3360	Oil Operations Permit
E	06501	WSSC
E	SMW000002381	MDE- Special Medical Waste Permit

5. Nature of Business

NSA Bethesda is a Federally Owned and operated medical treatment center. NSA Bethesda consolidates hazardous wastes generated on site until cost effective measures to transport and dispose of waste are completed. NSA Bethesda does not accept hazardous wastes generated off site and does not treat or dispose of hazardous waste on site.

5. Process Codes and Design Capacities

Line Number	A. Process Code	B. Process Design Capacity (1) Amount	B. Process Design Capacity (2) Unit of Measure	C. Process Total Number of Units	D. Unit Name
1	S 0 1	11,160	G	001	

7. Description of Hazardous Wastes (Enter codes for Items 7.A, 7.C and 7.D(1))

Line No.	A. EPA Hazardous Waste No.	B. Estimated Annual Qty of Waste	C. Unit of Measure	D. Processes (1) Process Codes	D. Processes (2) Process Description (if code is not entered in 7.D1))
1	D 0 0 1	9800	P	S 0 1	
2	D 0 0 2	3000	P	S 0 1	
3	D 0 0 3	75	P	S 0 1	
4	D 0 0 4	130	P	S 0 1	
5	D 0 0 5	10	P	S 0 1	
6	D 0 0 6	430	P	S 0 1	
7	D 0 0 7	750	P	S 0 1	
8	D 0 0 8	430	P	S 0 1	
9	D 0 0 9	920	P	S 0 1	
10	D 0 1 0	5	P	S 0 1	
11	D 0 1 1	460	P	S 0 1	

8. Map

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

9. Facility Drawing

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

10. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

11. Comments

MD4170024687

Description of Hazardous Wastes (Continued)

Line #	A. EPA HW Code	B. Est. Annual Quan	C. Unit of Measure	D. Process Codes	Line #	A. EPA HW Code	B. Est. Annual Quan	C. Unit of Measure	D. Process Codes	Line #	A. EPA HW Code	B. Est. Annual Quan	C. Unit of Measure	D. Process Codes
12	D018	1440	P	S001	52	P047	85	P	S001	92	U103	20	P	S001
13	D019	25	P	S001	53	P048	85	P	S001	93	U108	285	P	S001
14	D020	5	P	S001	54	P072	20	P	S001	94	U112	373	P	S001
15	D021	5	P	S001	55	P077	1	P	S001	95	U115	20	P	S001
16	D022	710	P	S001	56	P087	95	P	S001	96	U117	10	P	S001
17	D025	15	P	S001	57	P089	105	P	S001	97	U119	10	P	S001
18	D026	5	P	S001	58	P098	120	P	S001	98	U121	150	P	S001
19	D027	5	P	S001	59	P105	205	P	S001	99	U122	25	P	S001
20	D028	25	P	S001	60	P106	20	P	S001	100	U123	50	P	S001
21	D029	5	P	S001	61	P108	1	P	S001	101	U124	5	P	S001
22	D030	5	P	S001	62	P116	20	P	S001	102	U133	10	P	S001
23	D031	1	P	S001	63	P120	20	P	S001	103	U136	285	P	S001
24	D032	5	P	S001	64	U001	10	P	S001	104	U138	1	P	S001
25	D033	5	P	S001	65	U002	285	P	S001	105	U140	285	P	S001
26	D034	5	P	S001	66	U003	210	P	S001	106	U151	32.5	P	S001
27	D035	25	P	S001	67	U004	5	P	S001	107	U154	10	P	S001
28	D036	5	P	S001	68	U006	5	P	S001	108	U162	165	P	S001
29	D037	5	P	S001	69	U007	555	P	S001	109	U163	35	P	S001
30	D038	5	P	S001	70	U008	5	P	S001	110	U165	10	P	S001
31	D039	1440	P	S001	71	U009	10	P	S001	111	U170	285	P	S001
32	D040	25	P	S001	72	U112	10	P	S001	112	U185	1	P	S001
33	D041	5	P	S001	73	U019	25	P	S001	113	U188	700	P	S001
34	D042	5	P	S001	74	U021	5	P	S001	114	U196	285	P	S001
35	D043	5	P	S001	75	U031	304	P	S001	115	U200	1	P	S001
36	F001	5	P	S001	76	U037	5	P	S001	116	U211	340	P	S001
37	F002	105	P	S001	77	U044	50	P	S001	117	U213	285	P	S001
38	F003	10200	P	S001	78	U045	35	P	S001	118	U220	285	P	S001
39	F004	5	P	S001	79	U052	165	P	S001	119	U226	285	P	S001
40	F005	13750	P	S001	80	U055	5	P	S001	120	U227	35	P	S001
41	F027	100	P	S001	81	U056	5	P	S001	121	U236	373	P	S001
42	P008	5	P	S001	82	U057	285	P	S001	122	U246	10	P	S001
43	P011	5	P	S001	83	U069	5	P	S001	123	U247	10	P	S001
44	P012	85	P	S001	84	U070	5	P	S001	124	U326	285	P	S001
45	P014	146	P	S001	85	U071	5	P	S001	125	U328	285	P	S001
46	P015	5	P	S001	86	U072	5	P	S001	126	MT01	1000	P	S001
47	P022	5	P	S001	87	U075	35	P	S001	127	M001	100	P	S001
48	P030	85	P	S001	88	U076	5	P	S001	128	MX01	5000	P	S001
49	P033	5	P	S001	89	U077	130	P	S001					
50	P042	20	P	S001	90	U080	285	P	S001					
51	P043	1	P	S001	91	U102	5	P	S001					