NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Materials Management, Bureau of Hazardous Waste and Radiation Management
625 Broadway, 9th Floor, Albany, New York 12233-7256
P: (518) 402-8651 | F: (518) 402-9024
www.dec.ny.gov

May 26, 2023

Sent via email, no hard copy to follow
Chris Schmitt, CHMM
ChemCare Regulatory Specialist
Univar Solutions USA Inc.
3 Broad Street
Binghamton, New York 13902

Re: Univar Solutions USA Inc.
3 Broad Street
DEC Permit ID: 7-0302-00068/00011
EPA ID: NYD049253719
UIS Site ID: 704025

PERMIT MODIFICATION

Dear Chris Schmitt,

The New York State Department of Environmental Conservation (NYSDEC) has reviewed the April 28, 2023 "Univar Solutions' Binghamton Permit Modification Revision 1" (Enclosure #1). In addition to addressing administrative and informational changes, corrections of typographical errors, and other updates to the 2013 Part 373 Permit (Permit), the modification request primarily focused on:

- Adding Building 4 as a permitted hazardous waste storage with updates to affected pages of the application
- Providing maintenance flexibility to remove permit language citing specific epoxy brand for concrete floor coating
- Providing operation flexibility to existing hazardous waste storages areas pertaining to Bays A, D, and E.
    - Bays A and D to additionally store D001 ignitable waste
    - Bay E to store D003 corrosive waste

Please see Enclosure #2 NYSDEC-revised Section C "Compliance Schedule", and Section D "Schedule of Deliverables" of Schedule 1 of Module I of the Permit. The effective date of the permit modification is May 26, 2023. All schedule items must be submitted and approved by the NYSDEC prior to utilizing Building 4 as a hazardous waste storage area.

Pursuant to 6 NYCRR Part 373-1.7(c)(1)(i), Part 373-1.7(c)(1)(ii), Part 373-1.7(c)(4)(i)('a'), and Part 373-1.7(c)(6)(i) the proposed changes do not substantially alter permit conditions or reduce the capacity of the facility to protect human health or the

environment. Enclosures #3 and #4 include modified permit pages and are approved. These pages supersede the existing like-numbered pages of the Permit issued on May 30, 2013 as well as any subsequent modifications. All other terms and conditions of the permit remain as previously issued and/or modified. Please replace the pages in your copy of the permit and in all copies held in document repositories for this facility.

In accordance with 6 NYCRR Part 373-1.7(e), you are required to send an announcement of all modifications to all persons/parties on the facility mailing list, to units of local government, and to each State Agency having authority over the operation of the facility. Please copy the NYSDEC on correspondence that fulfills this requirement.

If you have any questions or comments regarding this modification, please contact Shaen Guang (shaen.guang@dec.ny.gov) of my staff at 518-402-9810.

Sincerely,

Lynn M. Winterberger, P.E.
Supervisor, HW Permitting Section

Enclosures:

1. Univar Solutions Binghamton Permit Modification Revision 1, dated April 28, 2023 as amended on May 11, 2023
2. Pages S1-3 and S1-4 NYSDEC - revised Schedule 1 of Module I
3. Attachment M – Major/Minor Modification log
4. Finalized minor modification page changes

ec: J. Stercho, NYSDEC R7
B. Rogers, NYSDEC R7
S. Perrigo, NYSDEC R7
S. Guang, NYSDEC Albany
E. Otto, Univar Solutions USA Inc
L. Taylor, Univar Solutions USA Inc

ENCLOSURE 1

Univar Solutions USA Binghamton Permit Modification Revision 1

dated April 28, 2023, as amended on May 11, 2023

April 28, 2023

Ms. Lynn Winterberger
RCRA Permitting Section Chief
New York State Department of Environmental Conservation (NYSDEC)
625 Broadway
Albany, NY 12233-0001

Re: Minor Modification
Hazardous Waste Management Permit No. 7-0302-0068/00011
Univar Solutions USA Inc.
Binghamton, New York
EPA ID No. NYD049253719

Dear Ms. Winterberger:

Pursuant to 6 New York Codes, Rules and Regulations (NYCRR) 373.1.7 and 621, Univar Solutions USA Inc. ("Univar Solutions"), is submitting this minor modification application for the Hazardous Waste Management Permit No. 7-0302-0068/00011 for the Univar Solutions facility located in Binghamton, Broome County, New York.

Enclosed please find one hard copy of the revised permit modification application identified as "Permit Modification – Revision 1, April 2023" (Enclosure 1). The application was also uploaded to the NYSDEC File Transfer Service. In this revision, we addressed your comments on the original permit modification application dated submitted in November 2022; each comment is addressed in Enclosure 2.

The permit modification application includes minor modifications addressing administrative and informational changes, corrections of typographical errors, and other updates to the permit application, primarily focused on:

- Added a portion of Building 4 as a permitted hazardous waste storage area with updates to affected pages of the application.
- Added operational flexibility to existing hazardous waste storage areas (e.g., identified option to store D001 hazardous waste in Bay A and D and D002 hazardous waste in Bay D).

Specific changes submitted with this permit renewal application from the previous application are identified in Attachment M included in Enclosure 1.

Also attached as Enclosure 3 is the certification for the application in accordance with 6 NYCRR Part 373-1.4(a)(5)(iv). Each page of the modification application is provided with revision number and date (month, year).

The only drawing provided with the application was stamped and certified by a New York State licensed P.E. with the same language as referenced herein.

Thank you for your assistance. If you require any additional information, please do not hesitate to contact me at 214-503-5709 or chris.schmitt@univarsolutions.com or Amy Bauer at 251-533-6949 or amy.bauer@ehs-support.com.

Sincerely,

pp 

Chris Schmitt
ChemCare Regulatory Compliance Manager

Enclosures

cc: Linda Taylor, Univar Solutions USA Inc.
Erik Otto, Univar Solutions USA Inc.
Amy Bauer, EHS Support LLC

Enclosure 1 – Permit Modification – Revision 1, April 2023

4. The Permittee is responsible for verifying that the ~~Qaulity~~ Quality Control/Assurance Program(QA/QC) followed by laboratories used by the Permittee to carry out analysis of the waste streams, conform to the QA/QC procedures approved in the permit and thus ensure the validity of the analytical data provided by the laboratories.

5. As required by ECL 03-0119, any laboratory (Permittee or contract) used by the Permittee to perform analysis pursuant to this Permit must be certified by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) in the appropriate categories of analysis, if ELAP issues certifications in such categories. If the Permittee uses a contract laboratory to perform analysis required by this Permit, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis and quality assurance provisions of this Permit.

6. The Permittee will store o~~O~~rganic peroxide and other temperature sensitive wastes ~~only as double overpacked lab packs and~~ separated from incompatible wastes. Packages containing organic peroxide formulation will be individually marked with chemical name of the organic peroxide or with other information adequate for proper storage. Storage areas for temperature sensitive wastes will be maintained within the recommended temperature range for the materials stored. The storage of organic peroxides with concentrations above the limits specified in 49 CFR 173.225 is prohibited.

7. Incompatible wastes (acids and alkalis) stored in ~~adjacent rows in~~ Bay ~~D, a~~E~~,~~ and Building 4 will be separated by concrete curbs and the minimum aisle space width of 2.5 ~~8~~ feet ~~of aisle space as shown in Figure 3 of the permit renewal application~~.

8. The Permittee is not authorized to accept the following wastes:

- ~~-~~ Reactive wastes (D003) in bulk, except cyanide and sulfide wastes~~, (reactive wastes can be accepted as double overpacked lab packs*)~~
- Water reactive wastes (except as ~~double overpacked~~ lab packs)
- Dioxin wastes and PCB's
- D003 wastes which have the property of 371.3(d)(1)(I), (vii) or (viii)
- DOT Division 1.1 through 1.6 explosive wastes (including DOT Type A, B, and C explosives)
- Class 1A f~~F~~lammable liquids in bulk (can only be accepted as lab packs with inner containers less than 1 (one) gallon)
- Poison g~~G~~as ~~C~~cylinders (P-listed waste ~~C~~codes) and poison gas/mixtures meeting USDOT Division 2.3 hazard zone A~~.~~
- Gas cylinders, except for aerosol cans and lectures bottles, which may be received in lab packs only
- Class 1 organic peroxides

Limitation on quantity of Oxidizers:

- 4000 lbs., ~~double overpacked -~~ Class I Oxidizers
- 1000 lbs., ~~double overpacked -~~ Class II Oxidizers
- 200 lbs., ~~double overpacked -~~ Class III Oxidizers
- 10 lbs., ~~double overpacked -~~ Class IV Oxidizers

~~- Class 1A flammable liquids can only be accepted as labpacks with inner containers less than 1 (one) gallon.~~

~~* Example of Double Overpacked labpack - small containers of waste lab packed in a 30- gallon container as per DOT requirements and the 30 gallon container overpacked with absorbent in a 55-gallon drum.~~.

9. 55 and 30 gallon hazardous and ~~non hazardous~~nonhazardous waste drums must not be stacked more than two tiers high. Consistent with the Fire and Property Maintenance Code of New York State (3404.3.5.2) and OSHA 29 CFR 1910.106 containers having less than 30 gallons in capacity which contain class I or II liquids shall not be stacked more than 3 feet or two containers high whichever is greater. Containers of Class I and II flammable liquids having a capacity of 30 gallons or greater shall not be stored more than one container high. All containers shall be stored in upright position.

PART 373 PERMIT

SCHEDULE 1 OF MODULE I
FACILITY-SPECIFIC CONDITIONS

DEC Facility Name: ~~Nexeo Solutions, LLC~~Univar Solutions USA Inc.
DER Facility No.: 7-0302-00068/00011
EPA RCRA ID No.: NYD049253719

Facility Address: 3 Broad Street
Binghamton, New York 13902
Broome County
Hereinafter referred to as "Facility" or "Site" or "Permittee"

A. PERMITTED ACTIVITIES

The following hazardous waste management units, activities and types and quantities of hazardous waste to be managed are authorized by this Permit:

Unit Type	Waste Description*	Container Specifications (USDOT)	Storage Volume (Gal)	Secondary Containment Volume (Gal)
Bay A (Temperature controlled)	Ignitable (D001), ~~W~~water ~~reactives~~ reactive, reactive (D003) not containing cyanide and sulfide, organic or inorganic peroxides and oxidizers (except Class 1)	1A1, 1A2, 1H1	1,925	641
Bay B (Temperature controlled)	Ignitable (D001), F-, U- and P-listed hazardous wastes exhibiting ignitability and toxicity characteristic, reactive (D003) only for aqueous cyanide and sulfide ~~Ignitable, astes – ignitable and non halogenated solvents, U and P wastes which exhibit ignitability and toxicity characteristic (TC) wastes~~	1A1, 1A2, 1H1	9,075	1,874
Bay C Temperature		1A1, 1A2, 1H1, 1H2, 6HA1, 6PA1	1,595	625
Bay D Temperature	Ignitable (D001), toxicity characteristic wastes ~~Corrosive, Waste – d TC wastes exhibiting corrosivity~~	1A1, 1A2, 1H1, 1H2	8,745	3,832

Unit Type	Waste Description*	Container Specifications (USDOT)	Storage Volume (Gal)	Secondary Containment Volume (Gal)
Bay E (Temperature controlled)	Non-ignitable, ~~and non~~ corrosive (D002) ~~waste~~, F-, K-, U- and P-listed waste exhibiting toxicity characteristic~~; halogenated waste and non halogenated toxic wastes, TC waste, plating wastes, K, U and P wastes~~	1A1, 1A2, 1H1, 1H2, 4G, 5H1, 5H2, 5H3, 1G	11,330	4,132
Bay G	Ignitable ~~Waste~~(D001), toxicity characteristic, F-, P, and U listed hazardous wastes exhibiting ignitability and toxicity characteristic	Same as Bays B and C	10,230	2,716
Building 4 (Temperature controlled)	Non-ignitable, corrosive (D002), toxicity characteristic, F-, K-, U- and P-listed waste with toxicity characteristic	1A1,1A2,1Hl 1H2, 4G, 5Hl, 5H2, 5H3, 1G	10,230	10,056
Total Storage Volume			~~42900~~ 53,130 ~~gal.~~	23,876

* Waste ~~numbers~~ codes are in Table C-1 and C-1.1 of Attachment I – Waste Analysis Plan

B. PERMIT DOCUMENTS

The following Modules, Attachments and documents incorporated by reference are considered part of this Permit:

Modules:

I General Conditions
Schedule 1 of Module I
II Corrective Action Requirements
III Use and Management of Containers

Attachments:

Attachment I – Waste Analysis Plan
Attachment II – Inspection Plan
Attachment III – Personnel Training Plan
Attachment IV – Security Plan
Attachment V – Preparedness & Prevention Plan
Attachment VI – Contingency Plan
Attachment VII – Closure Plan
Attachment VIII – Management of Waste in Containers
Attachment IX- Facility Description & Supporting Documents
Attachment X - Air Emission Standards
Attachment M - Major/Minor Permit Modifications

Waste Nos.	Characteristic, Chemical Name and/or Description
U159	Methyl Ethyl Ketone [I]
U160	Methyl Ethyl Ketone Peroxide [R] (~~-~~will be stored in lab packed ~~1 gallon~~ containers ~~double over packed in steel drums~~ and stored in a ~~temperature controlled~~temperature-controlled storage area.)
U161	Methyl Isobutyl Ketone [I]
U162	Methyl Methacrylate (inhibited) [I]
U163	N-Methyl N'-nitro N-nitrosoguanidine
U164	Methylthiouracil
U165	Naphthalene
U166	1,4-Naphthoquinone
U167	1-Naphthylamine
U168	2-Naphthylamine
U169	Nitrobenzene
U170	p-Nitrophenol
U171	2-Nitropropane [I,T]
U172	N-Nitrosodi-n-butylamine
Ul73	N-Nitrosodiethanolamine
U174	N-Nitrosodiethylamine
U176	N-Nitroso-N-ethylurea
U177	N-Nitroso-N-methylurea
U178	N-Nitroso-N-methylurethane
Ul79	N-Nitrosopiperidine
U180	N-Nitrosopyrrolidine
U181	5-Nitro-o-toluidine
U182	Paraldehyde [I]
U183	Pentachlorobenzene
U184	Pentachloroethane
U185	Pentachloronitrobenzene
U186	1,3-Pentadiene [I]

Waste Nos.	Characteristic, Chemical Name and/or Description
U280	Barban
U328	o-Toluidine
U353	p-Toluidine
U359	2-Ethoxyethanol [I]
U364	Bendiocarb Phenol
U367	Carbofuran Phenol
U372	Carbendazim
U373	Prop ham
U387	Prosulfocarb
U389	Triallate
U394	A2213
U395	Diethylene Glycol, Dicarbamate
U404	Triethylamine
U409	Thiophanate-methyl
U410	Thiodicarb
U411	Propoxur

Footnotes: [I] Ignitable, [WR] Water Reactive, [R] Reactive, [C] Corrosive, [T] Toxic

Table C-1.1 shows where the various different types of waste are stored by waste description and ~~number~~waste code. ~~Bay A is used to store water reactives, reactives (D003) (with the exception of cyanide and sulfides), organic peroxides, and oxidizers Bays B, C and G are used to store wastes that are flammable and exhibit the characteristic of ignitability, i.e. they have a flash point of less than 140° F. Bay D is used to store corrosives wastes with alkaline wastes stored on the office side of this bay and acids stored along the other wall of this bay (toward Bay E). Bay E is used to store non-ignitable and non-corrosive toxic wastes. This would include many of the U, P, K and F waste codes. Bays A, B, C, D, and E in Building 1 are all temperature controlled.~~

TABLE C-1.1
STORAGE LOCATIONS

Storage Area	Storage Capacity (Gallons	Waste Description Lab packs, drummed liquids, solids & sludges	Hazardous Waste Codes
Building 1 – Bay A (Temperature controlled)	1,925	Ignitable (D001), ~~W~~water ~~reactives~~reactive, reactive (D003) not containing cyanide and sulfide, oxidizers, and organic or inorganic peroxides (except Class 1)	D001, D003 not containing cyanide and sulfide, P023, P028, P064, P069, P087, U096, U160, U223, U249
Building 1 - Bay B (Temperature controlled)	9,075	Ignitable (D001), F-, U- and P-listed hazardous wastes exhibiting ignitability and toxicity characteristic, reactive (D003) only for aqueous cyanide and sulfide ~~Ignitable Wastes - ignitable and non halogenated solvents, U and P wastes which exhibit ignitability and toxicity characteristic (TC) wastes~~	D001, D003 (only for aqueous cyanide and sulfide), D018, D028, D029, D035, D043, F003, F004, F005, P003, P005, P014, P016, P022, P064, P067, P068, P073, P092, Pl01, P102, U001, U002, U003, U008, U012, U019, U025, U031, U041- U043, U045, U053, U055-U057, U074, U076-U079, U083-U085, U092, U098, U099, U108, U110, U112, U113, U117, U118, U122, U124, U125, U140, U152- U154, U156, U159, U161, U162, U171,U182, U186, U191, U194, U196, U213, U220, U239, U359 ~~D003 (only aqueous cyanide and sulfide)~~
Building 1 - Bay C (Temperature controlled)	1,595		
Building 1 - Bay D (Temperature controlled)	8,745	Ignitable (D001), ~~corrosive Wastes - D002 and TC~~ toxicity characteristic wastes ~~exhibiting corrosivity~~	D001, ~~D002,~~ D004-D011, K062, K111, K124, K131, U123, U134

Storage Area	Storage Capacity (Gallons)	Waste Description Lab packs, drummed liquids, solids & sludges	Hazardous Waste Codes
Building 1 - Bay E (Temp.erature controlled)	11,330	Non-ignitable, corrosive (D002), F-, K-, U- and P-listed waste exhibiting toxicity characteristic ~~Non-ignitable and Non-corrosive Wastes~~	D002, F001, F002, F006, F007, F008, F009, F010, F011, F012, F019, F024, F025, F034, F035, F037, F038, D004-D017, D019-D027, D030-D034, D036-D042, K001-K011, K013-K026, K028-K043, K046, K048- K052, K060, K061, K064-K066, K071, K073, K083-K088, K090, K093, K095-K105, Kl12-Kll8,K123, K125, K126, K132, K136, ALL LISTED "P" CODES IN TABLE C-1 UNLESS IGNITABLE (see above) U004, U007, U009-U011, U014-U018, U021, U022, U024, U026-U030, U032, U034-U039, U044, U047-U052, U058-U064,U067-U073, U075, U080-U082, U086-U091, U093-U095, U097, U101- U107, U109, U111, U114, U116, U119-U121, U126-U132, U135-U138, U141-Ul51, U155, U157, U158, U163-U170, U172-U174, U176-U181, Ul83-U185, U187, U188, U190, U192, U193, U197, U200-U211, U214-U219, U221-U222, U225-U228, U235-U238, U240, U243, U244, U246-U249, U271, U278-U280, U328, U353, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409-U411

Storage Area	Storage Capacity (Gallons)	Waste Description Lab packs, drummed liquids, solids & sludges	Hazardous Waste Codes
Building 2 - Bay G (not temperature controlled	10,230	Ignitable (D001), toxicity characteristic, F-, P, and U listed hazardous wastes exhibiting ignitability and toxicity characteristic ~~Wastes~~	D001, D018, D028, D029, D035, D043, F003, F004, F005, P003, P005, P014, P016, P022, P064, P067, P068, P073, P092, Pl01, P102, U001, U002, U003, U008,U012, U019, U025, U031, U041-U043, U045, U053, U055- U057, U074, U076-U079, U083- U085, U092, U098, U099, U108, U110, U112, U113, U115, U117, U118, U122, U124, U125, U140, Ul52- U154, U156, U159, U161, U162, U171, U182, UI86, U191
Building 4 (Temperature controlled)	10,230	Non-ignitable, corrosive (D002), toxicity characteristic, F-, K-, U- and P-listed waste exhibiting toxicity characteristic	D002, F001, F002, F006, F007, F008, F009, F010, F011, F012, F019, F024, F025, F034, F035, F037, F038, D004-D017, D019-D027, D030-D034, D036-D042, K001- K011, K013-K026, K028-K043, K046, K048-K052, K060, K061, K064-K066, K071, K073, K083-K088, K090, K093, K095-K105, K112-K118, K123, K125, K126, K132, K136, ALL LISTED "P" CODES IN TABLE C-1 UNLESS IGNITABLE (see above) U004, U007, U009-U011, U014-U018, U021, U022, U024, U026-U030, U032, U034-U039, U044, U047-U052, U058-U064, U067-U073, U075, U080-U082, U086-U091,U093-U095, U097, U101- U107, U109, U111, U114, U116, U119-U121, U126- U132, U135-U138, U141-U151, U155, U157, U158, U163-U170, U172-U174, U176-U181, U183- U185, U187, U188, U190, U192, U193, Ul97, U200-U211, U214-U219, U221-U222, U225-U228, U235-U238, U240, U243, U244, U246-U249, U271, U278- U280, U328, U353, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409- U411

The Binghamton facility is not authorized to accept the following wastes:

- Reactive wastes (D003) in bulk, except cyanide and sulfide wastes~~, (reactive wastes can be accepted as double overpacked lab packs)~~
- Water reactive wastes (except as ~~double overpacked~~ lab packs)
- Dioxin wastes and PCB's
- D003 wastes which have the property of 371.3(d)(l)(I), (vii) or (viii)
- DOT Division 1.1 through 1.6 explosive wastes (including DOT Type A, B, and C explosives)
- Class 1A f~~F~~lammable liquids in bulk (can only be accepted as lab packs with inner containers less than 1 (one) gallon)
- Poison g~~G~~as ~~C~~cylinders (P-listed waste c~~C~~odes) and poison gas/mixtures meeting USDOT Division 2.3 hazard zone A
- Gas cylinders, except for aerosol cans and lecture bottles, which may be received in lab packs only
- Class 1 organic peroxides

Limitation on quantity of Oxidizers:

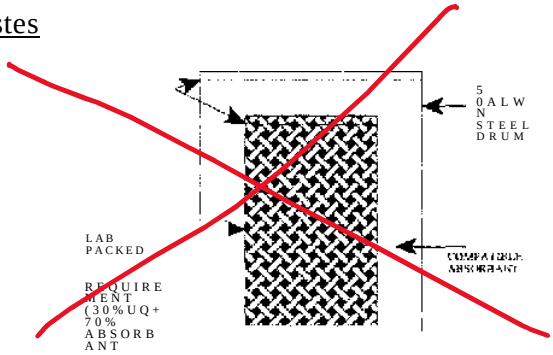
4,000 lbs., ~~double overpacked -~~ Class I Oxidizers
1,000 lbs., ~~double overpacked -~~ Class II Oxidizers
200 lbs., ~~double overpacked -~~ Class III Oxidizers
10 lbs., ~~double overpacked -~~ Class IV Oxidizers

~~Class 1A flammable liquids can only be accepted as lab packs with inner containers less than 1 (one) gallon.~~

~~Example: [Double Overpacks - lab packed in a 30- gallon container as per DOT requirements and overpacked with absorbent in a 55-gallon drum.]~~

~~RUBBER SEALS~~

On-site Generated Wastes



On site generated wastes are derived from clean up, monitoring well waters (non-hazardous) and maintenance operations (e.g., paints, oils, thinners~~, etc~~). On site generated waste is profiled for acceptance by an off-site TSDF for disposal or treatment.

Off-site Generated Wastes

The Binghamton facility stores off-site wastes generated by various generators. As a matter of routine, such wastes are pre-approved for acceptance by a commercial (non-~~Nexeo~~Univar) waste management facility.

The largest volume of off-site generated wastes are waste solvents and waste products containing spent solvents. These wastes include paint solvents, lacquer thinner, cleaning and degreasing solvents, waste paints and paint residues, printing inks, distillation bottoms, etc. These wastes are deemed hazardous due to ignitability and toxicity. Some of these wastes are hazardous due to presence of TC constituents.

Containers for hazardous wastes must be made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored. Containers to be stored include portable containers that meet U. S. Department of Transportation (USDOT) requirements for the hazardous material in the container.

Hazardous waste containers are always kept closed during storage. Containers will not be opened, handled, or stored in a manner that may cause them to rupture or leak. If a container holding hazardous waste is not in good condition, or if it begins to leak, it will be placed in a compatible overpack drum that meets the USDOT specifications.

Incompatible wastes will not be placed in the same container. Only wastes that are compatible with each other will be stored within a specific ~~bay in the~~ concrete curbed storage area. Wastes which may be stored at the facility are listed in Table C-1 and storage locations in Table C-1.1 of this permit. These hazardous wastes may contain free liquids, however, each storage area is designed for containers with free liquids.

The hazardous waste labels on the containers specifically identify ignitable (D001), corrosive (D002), and potentially reactive (F006, F007, and cyanide-containing) wastes. Nexeo's personnel are trained to keep acids and caustics stored separately and to keep all cyanide-containing wastes separate from acids. Bulk cyanide wastes with a pH lower than 10 will not be accepted for storage at the facility. Also, inorganic corrosive wastes are kept separate from the waste solvents. Hazardous waste containers are stored on pallets. The pallets are adequately spaced for inspection and for access by forklift. Containers are stored with labels visible for inspection (refer to section D for additional information).

C.2 WASTE ANALYSIS PLAN
[40 CFR 270.14(b)(3), 264.13(b) and(c), 266.102(a)(2)(ii), 266.104(a)(2), 268.7]
[6 NYCRR373-1.5(a)(2)(iii), 373-2.2(e)(2) & (3)]

The waste analysis plan which is used to assure that sufficient information is available for the proper handling and storage of wastes is described below.

Nexeo assists its off-site generators in qualifying their hazardous waste streams for approval and acceptance at a selected commercial waste management or reclamation facility. The waste handling program was developed by Nexeo to ensure proper container management and involves joint agreements between Nexeo and various permitted TSDFs. Nexeo assists with pick-up and transportation of off-site generator containerized wastes for disposal or reclamation at a permitted TSDF.

Nexeo subsequently picks up and transports the off-site generators containerized wastes to the identified waste management facility. Containerized off-site generator wastes are stored

completed for wastes subject to these restrictions.

Any significant discrepancy between the shipment, the manifest, or the waste profile sheet will be noted in writing on the manifest. ~~Nexeo~~ The permittee will immediately contact the off-site generator representative listed on the WPS to reconcile any discrepancies. If a significant discrepancy cannot be reconciled with the off-site generator within fifteen (15) calendar days, the NYSDEC will be notified of our attempt to resolve the matter along with an explanation of the manifest discrepancy. Also, ~~Nexeo~~ the permittee will notify the department within 15 days if the pre-approved waste delivered by ~~Nexeo~~ the permittee is rejected by the treatment/disposal facility. All documents pertaining to such rejection of wastes and the actions taken by ~~Nexeo~~ the permittee will be maintained in the operating records of the facility as per 6 NYCRR 3732.5(c)(2).

Once the ~~Nexeo~~ permittee's representative has verified the consistency of the manifest and shipment quantity, the integrity of each container, and the presence and accuracy of the labels and coding, the lot of waste is moved to the hazardous waste storage area. The representative will note the reactive properties of each lot of wastes as a basis for segregating the wastes. Plant personnel are trained to keep acids and caustics separate from each other and to keep cyanide wastes separate from acids. Incompatible wastes in adjacent bays are separated by a ~~four-inch high~~four-inch-high concrete curb and minimum aisle space width of ~~at least five~~ 2.5 feet ~~of aisle space~~.

C.2.a Parameters and Rationale
[40 CFR 264.13(b)(l), 6 NYCRR 373-2.2(e)(2)(i)]

The most extensive analytical evaluations of wastes are conducted by the receiving facility's laboratory. The qualifying or confirmatory testing is done primarily for five reasons:

1. To confirm the accuracy of the information provided on the WPS;
2. To confirm the accuracy of the declared RCRA hazardous waste code (WPS);
3. To establish the most effective waste management alternative;
4. To establish the safest container/shipment handling methods; and
5. To establish potential land disposal restrictions for the waste.

C.2.b Sampling Methods
[40 CFR 264.13(b)(3), Part 266- Appendix IX, 6 NYCRR 373-2.2(e)(2)(iii)]

For ~~Nexeo~~ on-site generated waste, if a sample is required, a representative sample of the waste stream is obtained following the procedures outlined in U.S. EPA Publication, SW-846- Test Methods for Evaluating Solid Waste, Physical Chemical Methods, Third Edition, November 1986 or most recent update.

adjacent bays are separated by a ~~four inch high~~four-inch-high concrete curb and minimum aisle space width ~~at least~~ of ~~five~~ 2.5 feet ~~of aisle space~~. The basis for segregating the wastes are the known properties of the waste and the process from which they come. This is supplemented by the data which is supplied by the generator on the WPS. This is confirmed by the pre-acceptance procedure.

No mixing of off-site generated hazardous wastes from different generators or different waste streams, or opening of off-site generated waste containers is done by this facility. Incompatible onsite generated wastes are not mixed or placed in the same container. Self-reactive wastes (including DOT Type A, B, and C) are not accepted ~~stored~~ at this facility. Organic peroxide/formulation wastes with self accelerated decomposition temperature (SADT), as determined in accordance with 49 CFR 173.21, below ambient temperature will not be accepted at the facility.

C.3 WASTE ANALYSIS REQUIREMENTS PERTAINING TO LAND DISPOSAL RESTRICTIONS
[40 CFR 262.10, 262.11, 264.13, 264.73, 266.102(a)(2)(ii), Part 268, 270.14(b)(3)]

Waste that is restricted from land disposal will not be accepted for storage unless it is accompanied by one of the applicable notices, an example of which is shown in Attachment C-2.

C.4 WASTE ANALYSIS
[40 CFR 261.21 THROUGH 261.24, 264.13()(1), 268.1, 268.7, 268.9, 268.32 THROUGH 268.37, 268.41 THROUGH 268.43]

The hazardous wastes stored at this facility are listed in Table C-1. The facility stores wastes that are generated off-site and wastes that are generated onsite. Wastes are accepted for storage only after they are pre-qualified for acceptance by a permitted TSDF. Each waste stream is profiled or characterized for its specific chemical or physical properties. This information is provided by the generator. A copy of the WPS is included in Attachment C-1.

C.4.a.1 Spent Solvent and Dioxin Wastes
[40 CFR 264.13(a)(1), 268.2(F)(1), 268.7, 268.30, 268.31}

F001 to F005 spent solvent wastes which are restricted from land disposal are identified by the generator during the pre-acceptance process, and the information is confirmed by the ultimate TSDF. These wastes are accompanied by the proper LDR notification form which indicates treatment standards. A typical LDR notification form is included in Attachment C2.

Containers are marked with the initial date of storage, and may not be stored at the facility for more than one year. Nexeo will not accept any dioxin or PCB wastes for storage at the facility.

a. The areas where the consolidation of loads takes place by moving containers from one transport vehicle to another or containers are removed from transport vehicles and stored prior to being reloaded are designed to meet the secondary containment requirements stipulated in 6NYCRR Part 373, Section 373-2.9(f).

b. The facility does not commingle wastes by repackaging, mixing or pumping from one container to another.

c. Transfer wastes are packaged in accordance with applicable USDOT regulations set forth in 49 CPR Parts 173, 178 and 179.

d. Transfer wastes are classified and segregated in accordance with 49 CFR 173.2(a) and 177.848 for storage and management at the facility.

e. Lab packs will be packaged in accordance with 49 CFR 173.12(b) and the contents of lab pack containers that are packed by other than the facility personnel will be inspected prior to transport to the facility by the facility personnel to ensure that they are packaged in accordance with USDOT requirements.

f. Solid wastes will be managed in accordance with 6 NYCRR Part 360, Section 360-1.7(b)(7).

g. Transfer wastes (Hazardous wastes) are stored on site for a maximum of 10 days.

h. A current inventory of all transfer wastes on site will be maintained at all times.

i. Transfer waste containers will be inspected each operating day.

j. 10-Day transfer wastes trucks if parked overnight will be staged in designated areas.

k. Ignitable wastes and oxidizers will be managed in accordance with NFPA requirements and Fire & Property Maintenance Code of New York State.

~~l. Organic peroxides, water reactives, pyrophorics, unstable monomers, flammable metal powders, materials classified as DOT 6.1 zone A and strong oxidizers (example: NFPA Class 3 and 4) are not accepted for storage.~~

Because containers are never opened while in storage the potential for reactions between incompatible materials remains low. However, a risk does exist in the event of leaks from multiple adjacent containers. To reduce this hazard, containers are segregated according to the USDOT segregation rules for hazardous materials in transportation (see 49 CFR 177.848). Materials that are prohibited from storage together on a transport vehicle or

Attachment IV
PROCEDURES TO PREVENT HAZARDS

F.1 SECURITY
[6 NYCRR 373-1.5(a)(2)(iv)]

F.1.a Security Procedures and Equipment

The Binghamton facility is equipped with a barrier (fence) and has a means to control entry.

F.1.a.1 24-Hour Surveillance System
[6 NYCRR 373-2.2(f)(2)(i)]

The facility uses the barrier and controlled entry method as well as a 24-hour surveillance system, in the office and ignitable and reactive bay areas, as described below.

F.1.a.2 Methods to Control Entry

F.l.a.2.a Barrier
[6 NYCRR 373-2.2(f)(2)(ii)]

The active portion of the plant property is completely enclosed by a seven-foot high fence. The fence is of chain link construction with barbed wire on top. The fence is in good condition.

F.1.a.2.b Means to Control Entry
[6 NYCRR 373-2.2(f)(2)(ii)]

As the plot plan for the facility indicates, access to the plant yard is gained through the gates adjacent to the office on Broad Street. This gate is open during plant operating hours which are 7.00 a.m. - 6.00 p.m., Monday - Friday. This gate is closed and locked during non-operating hours. There is also a gate on Bevier Street adjacent to Building #4 and a railroad gate. These gates are locked at all times. Part A, Attachment ~~6, Appendix B~~ A-2 contains the site layout including the location of the fence.

The hazardous waste storage area is inside the building and the doors of the storage areas are shut except when the loading dock is being used. At these times, personnel are present to control access to the storage area. ~~The ignitable, reactive, poisons, toxics and corrosive hazardous waste storage areas are adjacent to the plant administrative office, which are in the same building.~~ Personnel are always present during normal working hours. The office and the hazardous waste storage areas Bays A, B, C, D, E and G, and Building 4 are equipped with an electronic security alarm and fire alarm system. The alarm systems are monitored by a central station, which is operated 24 hours a day by United Alarms. If the central station receives an alarm and does not subsequently receive a coded verification of a false alarm, it contacts the local police department and the fire department, if the fire alarm is triggered, and then contacts the emergency coordinator of Nexeo to inform them of the possible intrusion or fire.

Attachment V
PREPAREDNESS AND PREVENTION

F.3 WAIVER OF DOCUMENTATION OF PREPAREDNESS AND PREVENTION REQUIREMENTS
[6 NYCRR 373-1.5(a)(2)(vi)]

No waiver of documentation of preparedness and prevention requirements is requested for this facility.

F.3.a Equipment Requirements
[6 NYCRR 373-2.3(d)]

F.3.a.1 Internal Communications
[6 NYCRR 373-2.3(c)(1)]

The plant has an intercom system which is used to make announcements over the plant's public address system. This is adequate to provide emergency instructions to facility personnel in a situation requiring such action.

F.3.a.2 External Communications
[6 NYCRR 373-2.3(c)(2)]

The facility telephone system is used for summoning emergency assistance from the local police and fire departments and from state emergency response teams.

F.3.a.3 Emergency Equipment
[6 NYCRR 373-2.3(c)(3)]

The facility is equipped with emergency equipment to combat a fire, explosion, or spill of products or hazardous waste. A listing of the emergency equipment is included in the Contingency Plan which is in Attachment 6 of this permit application.

F.3.a.4 Water for Fire Control
[6 NYCRR 373-2.3(c)(4)]

Fire suppression water is supplied by the municipal water system. Water is available at adequate volume and pressure to supply fire hoses, foam producing equipment, automatic sprinklers and water supply systems should the need arise. The facility has an automated sprinkler system in the ~~Bays~~ permitted hazardous waste storage areas where ignitable hazardous wastes are stored and in the office. The sprinklers are monitored for 24 hours per day by an independent alarm service.

F.3.b Aisle Space Requirements
[6 NYCRR 373-2.3(f)]

The hazardous waste container storage area is inspected daily for proper placement of containers and pallets. The storage area is maintained in good order with adequate aisle space for placement of pallets. All stored containers can be fully inspected from the aisles. A minimum space aisle space of ~~two and a half~~ 2.5 feet is maintained ~~between aisles~~ (see Part A Attachment A-2 for aisle locations). There is adequate space around the hazardous waste storage area and stored containers to allow for the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment in the event of an emergency.

F.4 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT
[6 NYCRR 373-1.5(a)(2)(viii)]

F.4.a Unloading Operations
[6 NYCRR 373-1.5(a)(2)(viii)(a)]

Each container loaded/unloaded is inspected for deterioration and any suspect container is placed in a recovery drum. Absorbent pads and corrosive neutralizers are available for clean up, if necessary. Containers are stored, loaded and unloaded on wooden pallets from trucks at the dock. A ~~fork lift~~forklift is used to load and unload pallets to and from trucks. Each forklift is rated for service in a Class I Division II area. A certification plate is attached to each unit. A forklift driver is always present until the waste is unloaded at the storage area or loading dock.

The loading/unloading pads are coated with an impervious coating.

F.4.b Run-off
[6 NYCRR ·373-1.5(a)(2)(viii)(b)]

The hazardous waste storage area is curbed to prevent run-off to other areas. The storage area is within the warehouse and, therefore, not subject to precipitation. The warehouse floor is elevated above grade, and the entire facility is not within a 100-year floodplain.

F.4.c Prevention of contamination of Water Supplies
[6 NYCRR 373-1.5(a)(2)(viii)(c)]

The hazardous waste container storage area is located within the warehouse and is not subject to precipitation or storm water run-on. The storage area is fully-contained to prevent run-off of spills or leaks. The facility is not within a 100-year floodplain. There are no known water wells near the facility. The site drainage pattern does not interact with the city water supply. Therefore, there is little potential for operations at this facility to contaminate water supplies.

F.4.d Equipment and Power Failure [6 NYCRR 373-1.5(a)(2)(viii)(d)]

Operations in the hazardous waste storage area would not be affected by a power outage since material handling is manual. The facility is equipped with emergency lighting that will function in the case of a power outage.

The principal equipment failure would be mechanical failure of the ~~fork lift~~forklift trucks. In that event, hand trucks would be used to move the containers.

F.4.e Personnel Protective Equipment [6 NYCRR 373-1.5(a)(2)(viii)(e)]

The facility maintains standards for protective clothing and equipment that are required for the workplace. Adequate supplies of personal protective clothing and equipment are kept at the facility. The protective equipment at the facility is listed and described in the facility Contingency Plan in Section G of this application.

The facility maintains standards for protective clothing. These standards are described in Standard Practice Instruction (SPI) I-8.

F-5 PREVENTION OF REACTION OF IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE [6 NYCRR 373-1.5(a)(2)(ix)]

F.5.a Precaution to Prevent Ignition or Reaction of Ignitable or Reactive Waste [6 NYCRR 373-2.2(i)(1) & (3)]

To reduce/prevent the possibility of a chemical reaction, drivers are instructed to never pick up any leaky, suspect, or deteriorated containers of waste. Once any material is received, only closed containers are stored at the facility. Hazardous waste containers are always kept closed when stored or moved. The storage areas ~~is~~ are designed to prevent/reduce the possibility of an adverse reaction between incompatible wastes because ~~the pad is equipped with~~ of storage bays separated by a four-inch-high concrete curb and minimum aisle space of 2.5 feet~~a five-foot aisle space~~. Smoking is not permitted in the plant, and "No Smoking" signs are conspicuously posted. The forklifts which are used to handle hazardous wastes are approved for use in Class I, Division 2 hazardous areas. Potential reactive material is stored in separate bays.

In addition, the storage area is inspected daily and any spillage is cleaned up immediately which also reduces the possibility of any reaction. Any suspect or leaky container is placed in a recovery drum.

F.5.b General Precautions for Handling Ignitable or Reactive Waste and Mixing of incompatible Waste
[6 NYCRR 373-1.5(a)(2)(ix), 373-2.2(i)]

No treatment or mixing of wastes is done by this facility. Containers are inspected upon arrival at the facility to assure that they are in good condition. Containers, which are kept closed, are then moved into the proper storage area. Containers are not opened at this facility. Therefore, accidental mixing of ignitable or reactive wastes is highly unlikely.

F.~~6~~5.c Management of Ignitable or Reactive Wastes in Containers
[6 NYCRR 373-1.5(b)(3), 373-2.9(g)]

The ignitable waste storage area is more than 15 meters (50 feet) from the facility's property line.

F.5.d Management of Incompatible Wastes in Containers
[6 NYCRR 373-1.5(b)(4), 373-2.9(h)(1) & (2)]

Facility personnel who are responsible for the management and storage of hazardous waste are fully trained in proper waste handling procedures. Stored waste materials are not handled outside of the containers in which they were received. Potentially incompatible wastes are stored in separate bays ~~and are~~ separated by ~~storage area~~ curbs or other means. Waste containers are approved for receipt and shipment only after confirmation that the containers are in good condition and properly closed. Once received, further handling of the waste materials is neither necessary nor allowed, and no mixing of wastes occurs. Therefore, incompatible wastes would neither be put into the same container with other wastes nor put into an incompatible container in the event of a transfer due to leakage. Incompatible wastes are segregated according to DOT compatibility categories. Unmarked or unknown wastes are not accepted. The DOT classification may be determined by reference to 49 CFR Part 172.101, "Hazardous Materials Table." ~~Additionally~~Additionally, the facility uses MSDS sheets and the EPA document "A Method for determining the Compatibility of Hazardous Materials" as guidance for segregation of waste for storage.

No Class 1 organic peroxides will be accepted at the facility for storage.

The facility will not store organic peroxides or other temperature sensitive materials with a self-accelerating decomposition temperature (SADT) <122 ºF (as determined by any of the test methods described in Part II of the UN manual of test and criteria) unless deactivated.

Organic peroxides or temperature sensitive materials that are passed their expiration date or mixtures of temperature sensitive materials or formulations must be deactivated as provided in 49 CFR 173.225 with the required amount of dilute to desensitize them in order to be accepted for storage at the facility. The desensitized organic peroxides will be packaged in accordance with 49 CFR 173.225 and 173.24(a) and must be labeled with the chemical names of the waste along with other information adequate for proper storage.

~~Lithium batteries will not be accepted for storage at the facility.~~

Copies of this Closure Plan and subsequent approved amendments to the plan will be available at the facility until closure of this area is completed and certified.

I.1.b Partial Closure and Final Closure Activities
[6 NYCRR Part 373-2.7(c)]

The hazardous waste storage area is expected to remain operational during the life of the Binghamton facility. No partial closure activities are planned for this facility. If an unanticipated partial closure is necessary, this Closure Plan will be amended in accordance with the regulations.

I.1.c Maximum Waste Inventory
[6 NYCRR Part 373-2.7(c)(2)(iii)]

The maximum inventory of hazardous wastes that could be in storage at any time during the life of this facility is ~~42,900~~53,130 gallons (which is equivalent to ~~780~~966, 55-gallon drums). Table C-1 in the Waste Analysis Plan (Attachment I of this Permit) contains a list of all hazardous waste codes the facility is permitted to store. Table C-1.1 lists which bays are used to store the various hazardous wastes.

I.1.d Schedule for Closure

A time schedule for the closure of the hazardous waste storage unit is shown in Figure I-1. Figure I-1 represents the maximum time allotted for closure activities at the Binghamton facility.

I.1.d.1 Time Allowed for Closure
[6 NYCRR 373-2.7(d)(l) & (2)]

~~Nexco~~ ~~Univar~~ The permittee will notify the Commissioner in writing at least 45 days prior to the date on which it expects to begin closure of the hazardous waste management unit.

Figure I-1 shows that:

- All hazardous wastes will be removed off-site within 90 days from the receipt of the final volume of waste.
- All closure activities will be completed in accordance with the approved closure plan within 180 days from the receipt of the final volume of waste.

I.1.d.1.a Extension of Closure Time
[6 NYCRR Part 373-2.7(d)(1)(i)]

If closure activities are expected to extend beyond 180 days after receiving the final volume of hazardous waste, a petition for a schedule for closure that justifies that a longer period of closure time is required will be submitted to the Department for approval.

~~The storage area consists of six separate bays which are shown on the plot plan in Attachment A-2.~~ Hazardous waste is stored in separate bays A, B, C, D, E, and G, and Building 4 (Attachment A-2). Each storage bay is separated ~~encircled~~ by concrete curbing and ramps which will contain a spill or leak within the bay. Hazardous waste containers are stored on pallets within each storage bay. Bays F and H are used to store only 10-day transfer and non-hazardous wastes.

The base of the storage area is constructed of concrete which is free of cracks or gaps and is sufficiently impervious to contain leaks or spills, until any collected material is discovered and removed. The concrete base in each bay is sealed with a coating which is compatible with the wastes stored.

Closure of this storage area will be completed within 180 days after receiving the final volume of hazardous waste. The need for a time extension is not anticipated at this time. Closure activities will include:

Within 90 days of receiving the final volume of hazardous waste, the entire inventory will be transported to a RCRA permitted off-site, treatment, storage, or disposal facility (TSDF). Containers will be properly manifested, packaged, and labeled for shipment according to U.S. Department of Transportation (USDOT) and EPA/NYSDEC regulations. Prior to shipment, containers will undergo an additional inspection for leakage. Leaking containers will be placed in overpack drums with absorbent materials. Any equipment or clothing that contacts the hazardous waste will be decontaminated or disposed of as a hazardous waste.

Any liquids in the storage bay containment system will be drummed and removed for disposal at a permitted TSDF. The floor will be swept clean and/or scraped to remove any solid residues. The entire surface area of the hazardous waste storage area and any equipment used in the transport and handling of hazardous waste or equipment used during closure activities will be steam cleaned or rinsed using a high pressure water wash within the storage area containment system.

The floor will be washed with a steam generator cleaner unit employing an industrial grade detergent, pressurized steam and water. A heavy duty industrial vacuum cleaner will be used to pick up water and sediment from the floor. Detergent washing will continue until it is visually evident that the floor surface is clean. The wash water will be disposed of at a permitted TSDF facility.

Plastic sheeting, or other moisture barrier, will be placed around the outside perimeter of the storage area to protect surrounding surfaces. This sheeting will be characterized and managed appropriately following the decontamination of the storage area. Following steam cleaning and scrubbing activities, the entire surface area of the storage area will be triple rinsed with potable water. The floor will be thoroughly wetted over the entire surface area. Then using a dry vacuum, new floor mops, and squeegees, the surface water will be removed working from the periphery to the center. Once the first rinse is removed, this procedure will be repeated for the second and third rinses.

Wash and rinse water will be accumulated into 55-gallon containers. This water will be characterized (i.e., analyzed for corrosivity and TCLP and managed accordingly. If determined to be hazardous, it will be managed in the same manner as the final volume of hazardous waste. An estimated ~~200~~ 1,400 gallons ~~per hour~~ of wash water will be generated during steam cleaning, rinsing, and scrubbing activities. The cleaned area will be inspected using a photo ionization detector to determine completeness of cleaning. As proof of decontamination of the storage bays the protocol listed in section I.9 of this document will be used. ~~Two blank samples will also be collected. Two~~ One rinsate samples from each bay and one rinsate sample from Building 4 will be sent for chemical analysis. Each sample will be analyzed for pH, TCL volatiles, TCL semi volatiles and TAL metals. Sampling methods will be in accordance with the procedures established in SW-846 *(EPA Test Methods for Evaluating Solid Waste, November 1986, or most recent update).* The closure data will be provided as a NYSDEC Analytical Service Protocol (ASP) category B or Contract Laboratory Program (CLP) data deliverables package by the analytical laboratory to provide sufficient analytical QC data quality.

Soils in the facility are not expected to be contaminated by the container storage of hazardous wastes. However, to demonstrate that the soils are clean, two soil samples six inches below the concrete pad will be taken from each bay and analyzed for the same parameters as the rinsate samples. The exact sampling locations will be determined in consultation with the NYSDEC representative at the time of closure. The analytical values will be compared to 6 NYCRR Part 375-6, Remedial Program Soil Cleanup Objective. If contaminants above these levels are present in the soil samples, additional sampling and analysis may be required.

I.1.e.2 Analytical Parameters and Test Methods

Table C-1 contains a list of all hazardous waste codes the facility is permitted to store. Samples collected during closure activities will be analyzed for the most common constituents which have been stored at this facility, according to the applicable SW -846 methods by a NYSDOH Environmental Laboratory Approval Program (ELAP) certified off-site analytical laboratory.

Flash point and pH will also be analyzed to determine if samples exhibit the characteristics of ignitability or corrosivity.

I.1.e.3 Clean Standards

The sample results for the rinsate samples shall be compared to the New York State Water Quality Standards for Class GA groundwater or background per 6NYCRR Part 703.6. If the sample results are less than this water quality standard, the storage area will be considered closed clean.

The final and specific choice of sampling points, number of samples, type of sampling to be performed and closure analyte list will be determined at the time of closure by NYSDEC. These determinations will be based upon the past history of operating practices and types of wastes handled at the facility. The operating record, the record of spills, the types of waste released, location of spills in the facility and the condition of secondary containment systems will also provide data to be used in these determinations. The flexibility afforded by this approach will

allow compliance with closure regulations and requirements that will be in effect at the time of closure. Different sampling procedures may be considered at closure and the locations and the total number of samples required will be determined based on the information gathered at the time of closure. The verification of decontamination will be based on NYSDEC's regulatory cleanup standards at the time of closure.

I.l.e.4 NYSDEC Notification Before Closure

As required by 6 NYCRR Part 373-2.7(c)(4), a written notification will be submitted to the NYSDEC at least 45 days prior to the date on which closure of the regulated unit is expected to begin.

I.1.e.5 Certification of Closure
[6 NYCRR 373-2.7(f)(1) & (2)]

A report documenting closure activities, analytical results, and closure certification will be prepared within 60 days of completion of closure activities. The certification will specify that the closure was conducted in accordance with the specifications of this Closure Plan and will be submitted to the NYSDEC. The certification will be signed by an independent, qualified, professional engineer registered in New York and by the owner of the Binghamton facility.

I.2 POST-CLOSURE PLAN/CONTINGENT POST-CLOSURE [6 NYCRR 373-2.7(g) through (j)]

Post-Closure care requirements do not apply to the hazardous waste storage area.

I.3 CLOSURE COST ESTIMATE
[6 NYCRR 373-1.5(a)(2), 373-2.8]

The closure cost estimate is shown in Table I-1. Total closure cost is estimated to be approximately $~~419,274~~502,252.

1.4 FINANCIAL ASSURANCE MECHANISM FOR CLOSURE [6 NYCRR 373-1.5(a)(2)(xv) & (xvi), 373-2.8(d)]

The company uses a closure bond ~~trust fund~~ to demonstrate financial assurance for facility closure and insurance to satisfy liability requirements. The trust agreement and certificate of insurance liability are included in Attachment I-1. The closure cost estimate included in the attachment is based on the current approved Closure Plan. The cost estimate included in Table I-1 will be used as the basis for closure cost when this permit application is approved.

I.7 POST-CLOSURE COST ESTIMATE

No post-closure cost estimate is required for this facility.

ATTACHMENT VIII
PROCESS INFORMATION

D.1 CONTAINERS
[40 CFR 270.15, 264.170 through 264.178, 6 NYCRR 373-1.5(b), 373-2.9]

Containers used for storage of hazardous wastes at this facility are portable containers which meet the requirements of the U.S. Department of Transportation (USDOT). The layouts of the hazardous waste storage areas are shown in ~~Appendix~~ Attachment A-2.

This section discusses process information for the storage of containerized wastes. The facility will store ~~customers~~customer's containerized wastes until a truckload quantity is accumulated for shipment to a permitted disposal site.

Container Inventory Logging System

When the waste enters the plant, a copy of the manifest and profile sheet are made and attached to a clipboard. There is a separate clipboard for each treatment, disposal, and recycling (TSD) facility used by ~~Nexeo Univar Solutions, LLC~~ USA, Inc. (~~NexeoUnivar~~) the permittee for ultimate disposition of the waste. On the front of each clipboard there is a cover sheet that tracks the total number of containers currently in storage destined for shipment to each off-site permitted TSD facility used by ~~NexeoUnivar~~the permittee. Shipments of wastes to the designated TSD facility are scheduled once the drum count approaches a full load.

Container Storage Management

Table D-1 provides a description of types of storage in each bay (area), container specifications, storage volumes, and secondary containment. ~~The waste storage bays B, C, and G are designated for storage of ignitable and some reactive wastes only. These rooms are dedicated for the storage of all wastes which have a flash point below 140°F. This would include the D001, D003 (aqueous cyanides and sulfides wastes only) F003, and F005 wastes and all other toxic, Toxicity Characteristic~~

~~(TC), K, U and P wastes which exhibit the characteristic of ignitability. Bay A is used otto store all other reactive wastes (D003), water reactives, organic peroxides, and oxidizers.~~

While in storage on-site, incompatible wastes are segregated by concrete ~~diking~~curbing. There are six individual ~~diked~~ curbed bays in the warehouses utilized to prevent the accidental mixing of incompatible wastes. Each bay has sufficient capacity to contain a leak or spill as described in this section.

Only compatible wastes are stored in each individual bay. Additionally, containers in each bay are segregated as to the ultimate TSD facility. At the end of each working day, a site diagram of the hazardous waste storage area is posted on the door of the facility that illustrates the number of containers of each hazard classification in each bay. This site diagram information is posted in accordance with the agreements with local authorities.

The warehouse rooms are separated from the other rooms by fire doors. This area is 50 feet from the property line in accordance with State and Federal Regulations for storage of ignitable wastes.

~~Non-hazardous wastes are not stored in the hazardous waste storage areas.~~

Basic Design Parameters, Dimensions, and Materials of Construction

The layout and location of the hazardous waste storage areas is shown in ~~Appendix~~ Attachment A-2. This drawing provides the overall dimensions of the hazardous waste storage areas~~rooms as well as the dimensions of each individual storage bay~~.

The hazardous waste storage area has six individual storage bays in three warehouse rooms in two buildings (Building #1 and #2) in addition to Building 4. These ~~bays~~ areas meet the requirements for secondary containment and separation of incompatible wastes as specified in Title 40 of the Code of Federal Regulations (40 CFR) Part 264, Subpart I. ~~The location of the hazardous waste storage area is shown in Appendix A.~~

Each storage bay is curbed to provide secondary containment in case of potential spills and leakage. Entrance ramps are installed on one end of each storage bay as shown in the layout drawing, ~~Appendix~~ Attachment A-2.

D.l.a Containers with Free Liquids

Hazardous wastes that may be stored at this facility are listed in Section C, Table C-1 and Table D-1 of this permit. The chemical and physical characteristics of these wastes are described in Section—C - Waste Characteristics. These hazardous wastes may contain free liquids, therefore, the hazardous waste storage area is designed for containers containing free liquids.

Table D-1

Storage Area	Waste Description	Container specifications (USDOT)	Storage Volume (Gal)	Secondary Containment Volume (Gal)
Bay A (Temp. controlled)	Ignitable (D001), ~~W~~water reactive, reactive (D003) not containing cyanide and sulfide, ~~reactives,~~ organic peroxides, and o~~O~~xidizers	1A1,1A2,1H1	1,925	614
Bay B (Temp. controlled)	Ignitable (D001), F-, U- and P-listed hazardous wastes exhibiting ignitability and toxicity characteristic, reactive (D003) only for aqueous cyanide and sulfide ~~Ignitable Waste_s - ignitable and non halogenated solvents, U and P wastes which exhibit ignitability and TC wastes plus D003 (only aqueous cyanide and sulfide wastes).~~	1A1,1A2,1H1	9,075	1,874
Bay C (Temp. controlled)		1A1,1A2,1H1 1H2,6HA1, 6PA1	1,595	625
Bay D (Temp. controlled)	Ignitable (D001), toxicity characteristic hazardous wastes ~~Corrosive Wastes- D002 and TC wastes exhibiting corrosivity~~	1A1,1A2,1H1 1~~l~~ID,	8,745	3,382
Bay E (Temp. controlled)	Non-ignitable, corrosive , F-, K-, U- and P-listed waste exhibiting toxicity characteristics ~~Non-ignitable and non-corrosive wastes; halogenated and non-halogenated toxic wastes, TC wastes, plating wastes, K, U and P wastes~~	1A1,1A2,1Hl 1H2, 4G, 5Hl, 5H2, 5H3, 1~~l~~G	11,330	4,132
Bay G	Ignitable (D001), toxicity characteristic, F-, P, and U listed hazardous wastes exhibiting ignitability and toxicity characteristic ~~Ignitable Wastes~~	Same as Bays B and C	10,230	2,716
Building 4 (Temp. controlled)	Non-ignitable, corrosive (D002), toxicity characteristic, F-, K-, U- and P-listed waste exhibiting toxicity characteristic	1A1,1A2,1Hl 1H2, 4G, 5Hl, 5H2, 5H3, 1G	10,230	10,056
Total storage volume			~~42,900~~53,130	23,876

All containers and liners used to manage hazardous wastes meet USDOT specifications. Stacking height shall not exceed 2 ~~pallets~~ tiers high. Containers of different capacities shall not be stored on the same pallet for stacking purposes. ~~All non-cyanide and sulfide reactive wastes are accepted only as double overpacked labpacks. These wastes are labpacked in a 30-gallon container as per USDOT requirements, and overpacked in a steel drum with vermiculite.~~

~~Organic peroxide will be stored only as double over packed labpacks.~~ Packages containing organic peroxide formulations will be individually marked with the chemical name of the organic peroxide or with other information adequate for proper storage. Storage areas for organic peroxides will be maintained within the recommended temperature range for the materials stored. The storage of organic peroxides with

concentrations above the limits specified in 49 CFR 173.225 is prohibited. Organic peroxides are stored ~~in Bay A~~ on raised containment pallets. ~~Oxidizers and water reactives are also stored in Bay A, which is temperature controlled.~~

Building #1 contains the main plant office and two warehouse storage rooms. Hazardous wastes are stored in both Building #1 and Building #2 warehouse storage rooms, and Building 4.

Ignitable Waste Storage Area

D001 and other ignitable wastes are stored within ~~two~~ ~~three~~five individual storage bays ~~in the south room (~~, Bay A, B ~~and~~ , C, and D~~)~~ of Building 1 and also in Bay G in Building 2. The storage bays are separated by curbs for secondary containment with ~~curbed and~~ ramps for entry~~ramped for secondary containment~~. ~~The room has a total area of 2,200 square feet. The storage bays occupy 940 square feet.~~ The remaining area consists of aisle ways for the movement of equipment (forklift trucks) and personnel. The bays are dedicated for the storage of all wastes which have a flash point below 140° F. Bays A, B, C, and G ~~This includes~~ store ~~the~~ D001, ~~F003, and F005 wastes and all other Toxic, T~~toxicity ~~C~~characteristic (TC), and F-, U-, K- and P-listed wastes ~~which~~ exhibiting ~~the~~ ignitability and toxicity characteristic ~~of ignitability~~, and Bay D stores D001 and toxicity characteristic wastes (see Table C-1.1 for specific waste codes). ~~This~~ These areas ~~is~~ are 50 feet from the property line in accordance with State and Federal Regulations for storage of ignitable wastes.

Attachment A-2 shows the floor plan and configuration of the permitted hazardous waste storage areas~~bays~~, pallets and aisle space with dimensions in the hazardous waste warehouse. The existing warehouse floor is ~~6 inch thick~~6-inch-thick concrete and is in good condition with no cracks, chips, or spalling. Curbs and entrance ramps extend at least 4 ~~5 and ½~~1/2 ~~(~~inches above the base floor elevation. The south warehouse room is separated from the other rooms by a fire door and man doors.

Corrosive, Non-Corrosive and Non-Ignitable Waste Storage Areas

The north warehouse room, in Building #1, ~~is divided into two storage bays, bay D and b~~Bay E ~~.~~ ~~Bay D~~ and Building 4 store~~s~~ wastes which exhibit the characteristic of corrosivity ~~()~~. These are D002 wastes and any other toxic or TC waste which may also exhibit corrosivity. ~~Bay E stores non-ignitable and non-corrosive wastes (). These~~ Other waste includes non-ignitable, ~~are~~ halogenated and ~~non~~non- ~~-~~halogenated toxic wastes, TC wastes, ~~plating/metal treating wastes,~~ and ~~non-ignitable~~ U-, K- and P-listed wastes. The layout and dimensions of the storage bays are shown in the layout drawing in Attachment A-2.

Building 1 ~~has a total area of 4,000 square feet. The storage bays occupy a total of 2,780 square feet. This~~ provides adequate room for the movement of waste handling and emergency equipment and personnel in and around the storage bays. Entrance ramps are installed in the west end of the storage bays. Curbing is installed in the southeast ~~comer~~ corner of the room to separate the firewater sprinkler system header from the hazardous waste storage area.

Specifications for the construction of entrance ramps and curbing are given in the layout drawing. Curbs and ramps are set into the existing warehouse floor to extend at least ~~5and 1/2~~ four inches above the base floor elevation.

All New York non-hazardous wastes are stored separate from hazardous wastes in other areas of the plant (Building #2, Bay F and Bay H). Bay F is a ~~temperature controlled~~temperature-controlled area to prevent non-hazardous temperature sensitive wastes from freezing. ~~Non-hazardous wastes are not stored in the RCRA hazardous waste storage area.~~

D.l.a.1 Description of Containers
[40 CFR 264.171, 264.172, 270.14(b)(2), 6 NYCRR 373-2.9]

All containers used for each hazardous waste must meet USDOT requirements for the appropriate hazard. Facility personnel responsible for shipping and receiving hazardous waste containers are trained to inspect the containers to assure compliance. A list of container types is included as Table D-1 in this section. Examples of labels used for container marking are included in Appendix B of Attachment VIII. Container labeling requirements are satisfied by following U S DOT requirements (Title 49 of the Code of Federal Regulations [49 CFR]).

The facility ensures that all containers and liners used to manage hazardous wastes at the facility meet USDOT specifications.

D.l.a.2 Container Management Practices
[40 CFR 264.173, 6 NYCRR 373-1.5(b), 373-2.9]

The hazardous waste storage area drum storage layout is shown on Attachment A-2. This drawing shows the overall dimensions of the individual storage bays/areas and the arrangement of the storage pallets. Waste containers are always kept closed when in storage. This facility serves only as temporary storage for customer generated wastes. Hazardous waste containers are marked with hazardous waste labels (see Appendix B of Attachment VIII) and labeled with the appropriate USDOT hazard labels.

The hazardous waste storage area is inspected daily to ensure that containers are stored in a manner to prevent ruptures and leaks. Containers are stored on pallets. The storage area is inspected to verify that pallets are properly placed and that containers are properly placed on the pallets. The pallets elevate the drums by 4 inches.

Containers are stacked no more than two tiers high in the hazardous waste storage area with each layer palletized. This ensures stability. Pallets are placed in storage ~~bays~~ areas such that an aisle spacing of a minimum of ~~three~~ 2.5 feet is maintained between rows of pallets.

The hazardous waste storage area is away from sources of ignition. The storage area is located more than 50 feet from the nearest property line. Containers of incompatible wastes are stored in separate bays or containment areas within the hazardous waste storage area. All ignitable wastes stored at this facility are compatible. No self-reactive (DOT Type A, B, or C) or explosive wastes are accepted at this facility.

Containers and pallets of containers are moved and handled with forklift trucks by fully-trained personnel.

D.1.a.3 Secondary Containment System Design and Operation [40 CFR 270.15(a)(1), 264.175(a), 264.175(d)], [6 NYCRR 373-1.5(b)(1)(I), 373-2.9(f)(1)(l)]

The layout of the hazardous waste storage areas ~~is~~ are shown on Attachment A-2.

This storage facility has six individual storage bays in three warehouse rooms, in addition to Building 4. Each storage ~~bay~~ area is curbed for secondary containment of potential spills and leakage. Entrance ramps are installed on one end of each storage bay as shown in the layout drawing. The height of the curbing and entrance ramps is at least four ~~5 and ½~~ 1/2 ~~-~~ inches above the base floor elevation.

The capacity of the secondary containment system is calculated as shown in Section D.l.a.3.c below.

D.l.a.3.a Requirement for the Base or Liner to Contain Liquids [40 CFR 264.175(b)(1)]

Containers are stored in bays located inside the hazardous waste storage area warehouse on a six-inch thick concrete floor that is free of cracks or gaps. Curbs and ramps are doweled to existing concrete and adhered to the concrete with an epoxy ~~poly sulfide~~ bonding agent ~~(Deco-Rez SBA-3576)~~.

Protective epoxy coating is applied to the floors of the storage ~~bays~~ areas as required. ~~The floor of the corrosives Bay D is coated for protection from strong acids and alkalies with a chemical resistant sealer, Deco-Rez Epoxy 3510. The floor of storage Bay D is coated for protection from chlorinated solvents with a solvent resistant coating, Deco-Rez 3511. Storage Bays A, B, C, and G is coated with Sikaguard.~~

Technical specifications for the various coatings are ~~included~~ identified ~~in Appendix C~~ in the independent secondary containment assessment required by Module III, Section K.1 of the Permit.~~.~~

The floors of the waste container storage areas are inspected daily. If the condition of the coating has deteriorated, or worn out or the secondary containment is found to have cracks or gaps, it will be noted in the inspection log and re-coated/repaired for the continued use of the secondary containment. All liquid spills or leaks are cleaned up immediately. Any suspect or leaking containers are placed in recovery drums, which are kept in plant inventory for such purposes. Spills will be neutralized and/or absorbed with materials which are maintained in plant inventory for such purposes.

The identity of the spilled material can be determined in most cases from plant inventory records. If the identity of the recovered material cannot be determined from plant records, it will be sampled and analyzed by an ELAP certified external lab, as necessary, prior to being submitted for disposal at a permitted disposal facility. If the identity or characteristics of the recovered material is expected to change as a result of the cleanup process, a sample will be taken and analyzed by an ELAP certified external lab.

D.l.a.3.b Containment System Drainage
[40 CFR 270.15(a)(2), 264.175(b)(2)], [6 NYCRR 373-1.5(b)(1)(ii), 373-2.9(f)(1)(ii)]

There are no drains within the secondary containment system. Waste containers are stored on pallets which elevate the containers approximately four inches above the floor, to protect the bottoms of containers from contact with spilled or leaked liquids.

D.l.a.3.c Containment System Capacity
[40 CFR 270.15(a)(3), 264.175(b)(3)], [6 NYCRR 373-1.5(b)(1)(iii), 373-2.9(f)(1)(iii)]

Storage Bay A Containment Capacity

Storage Bay A can contain five pallets as shown on the storage area layout plan, ~~Appendix~~ Attachment A-2. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high. This storage bay is permitted for a storage volume of 1,925 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 193 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

1,925 gallons X 0.10[a] = 193 gallons

Capacity Available:

(25 ft X 0.46ft X 8.83 ft) X 7.48 gal/ft^3 = 760 gallons

Volume Displacement of Ramp:

(3ft X 0.46ft X 8.83 ft X 0.5) X 7.48 gal/ft^3 = 46 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 5 pallets X 7.48 gal/ft^3 = 100 gallons

Net Capacity Available:

760 gallo~~n~~ s - 46 gallons- 100 gallons = 614 gallons

There are 614 gallons of secondary containment available which exceeds the required minimum containment capacity of 193 gallons.

Storage Bay B Containment Capacity

Storage Bay B can contain 24 pallets as shown on the storage area layout plan, Attachment A-2~~Appendix A~~. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 9,075 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 908 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

9,075 gallons X 0.10^{a} = 908 gallons

Capacity Available:

(24ft X 0.46ft X 30ft) X 7.48 gal/ft^3 = 2477 gallons

Volume Displacement of Ramp:

(3 ft X 0.46ft X 24ft X 0.5) X 7.48 gal/ft^3 = 124 gallons

Volume Displacement of Pallets:
2.67 ft^3/pallet[b] X 24 pallets X 7.48 gallons/ft^3 = 479 gallons

Net Capacity Available:

2477 gallons- 124 gallons- 479 gallons = 1874 gallons

There are 1,874 gallons of secondary containment available which exceeds the required minimum containment capacity of 908 gallons.

Storage Bay C Containment Capacity

Storage Bay C can contain 4 pallets as shown on the storage area layout plan, Attachment A-2~~Appendix A~~. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 1,595 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 160 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

1,595 gallons X 0.10[a] = 160 gallons

Capacity Available:

(10ft X 0.46ft X 22ft) X 7.48 gal/ft^3 = 757 gallons

Volume Displacement of Ramp:

(3 ft X 0.46ft X 10ft X 0.5) X 7.48 gal/ft^3 = 52 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 4 pallets X 7.48 gal/ft^3 = 80 gallons

Net Capacity Available:

757 gallons- 52 gallons- 80 gallons = 625 gallons

There are 625 gallons of secondary containment available which exceeds the required minimum containment capacity of 160 gallons.

Storage Bay D Containment Capacity

Storage Bay D can contain 23 pallets as shown on the storage area layout plan, Attachment A-2~~Appendix A~~. Each pallet holds up to four 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 8,475 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 846 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

8,475 gallons X 0.10[a] = 846 gallons

Capacity Available:

[(25ft X 58f~~t~~) - (24ft x 4f~~t~~) - (8ft x 4ft)] x 0.46ft X 7.48 gal/ft3 = 4,549 gallons (three dimension characteristics are listed as the bay is not a rectangle)

Volume Displacement of Ramp:

(3ft X 0.46ft X 25ft X 0.5) x 2 X 7.48 gal/ft^3 = 258 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 23 pallets X 7.48 gallons/ft^3 = 459 gallons

Net Capacity Available:

4,549 gallo~~n~~ s - 459 gallons- 258 gallons = 3,832 gallons

There are 3,832 gallons of secondary containment available which exceeds the required minimum containment capacity of 846 gallons.

Storage Bay E Containment Capacity

Storage Bay E can contain 30 pallets as shown on the storage area layout plan, Attachment A-2~~Appendix A~~. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 11,330 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 1,133 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

11,330 gallons X 0.10[a] = 1,133 gallons

Capacity Available:

(25 ft X 58 ft) x 0.46ft X 7.48 gal/ft^3 = 4,989 gallons

Volume Displacement of Ramp:

(3 ft X 0.46ft X 25 ft X 0.5) x 2 X 7.48 gal/ft^3 = 258 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 30 pallets X 7.48 gal/ft^3 = 599 gallons

Net Capacity Available:

4,989 gallons- 599 gallons- 258 gallons = 4,132 gallons

There are 4,132 gallons of secondary containment available which exceeds the required minimum containment capacity of 1,133 gallons.

Storage Bay G Containment Capacity

Storage Bay G can contain 27 pallets as shown on the storage area layout plan, Attachment A-2~~Appendix A~~. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 10,230 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 1,023 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

10,230 gallons X 0.10^{a} = 1,023 gallons

Capacity Available:

(46.5 ft X 0.46ft X 21.5 ft) X 7.48 gal/ft^3 = 3,440 gallons

Volume Displacement of Ramp:

(5 ft X 0.46ft X 21.5 ft X 0.5) X 7.48 gal/ft^3 = 185 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 27 pallets X 7.48 gal/ft^3 = 539 gallons

Net Capacity Available:

3,440 gallons- 185 gallons- 539 gallons= 2,716 gallons

There are 2,716 gallons of secondary containment available which exceeds the required minimum containment capacity of 1,023 gallons.

Building 4 Containment Capacity

Building 4 can contain 48 pallets as shown on the storage area layout plan, Attachment A-2. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two tiers high.

This storage bay is permitted for a storage volume of 10,230 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 1,023 gallons.

The secondary containment capacity of Building 4 is as follows:

Required Capacity:

10,230 gallons X 0.10[a] = 1,023 gallons

Capacity Available:

(58.83 ft X 0.437 ft X 57.66 ft) X 7.48 gal/ft^3 = 11,088 gallons

Volume Displacement of Ramp:

(3 ft X 0.437 ft X 15 ft X 0.5) X 7.48 gal/ft^3 = 74 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 48 pallets X 7.48 gal/ft^3 = 958 gallons

Net Capacity Available:

11,088 gallons – 74 gallons – 958 gallons = 10,056 gallons

There are 10,056 gallons of secondary containment available which exceeds the required minimum containment capacity of 1,023 gallons.

Notes:

a Ten-percent of the aggregate permitted capacity of the storage area or bay

b Pallet volume displacement

D.l.a.3.d Control of Run-On

[40 CFR 270.15(a)(4), 264.175(b)(4)], [6 NYCRR 373-l.5(b)(1)(iv), 373-2.9(f)(1)(iv)]

The hazardous waste storage areas are located inside a warehouse and run on and precipitation are prevented from entering the storage areas by the roof and walls of the building.

D.1.b Containers Without Free Liquids

[6 NYCRR 373-1.5(b)(2), 373-2.9(f), (2) & (3)]

All hazardous waste containers stored at the facility are handled as though they may contain free liquids. These containers are stored in the hazardous waste storage area which is designed for containers with free liquids.

D.2 CONTROL OF AIR EMISSIONS FROM CONTAINERS [6 NYCRR 373-2.29(g)]

The facility stores waste containers which are in light and non-light material service and, therefore, need to meet Level 1 and Level 2 control. The containers which are used for a particular waste must meet USDOT requirements for the appropriate hazard. Facility personnel responsible for shipping and receiving hazardous waste containers are trained to inspect the containers to ensure compliance. At the time of pick-up, the ~~Nexeo~~ driver will visually inspect all containers to be picked up to verify that all containers are intact. Trailers arriving at the Binghamton facility with hazardous waste containers for storage will be unloaded onto a loading dock. Facility personnel visually inspect the containers to ensure they are properly labeled and intact prior to moving them to the hazardous waste storage area. Waste containers are always kept closed when in storage. The hazardous waste storage area is inspected daily to ensure that containers are stored in a manner to prevent ruptures and leaks. See section D.4 for specific control requirements.

D. 3 REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES AND INCOMPATIBLE WASTES

The ignitable and reactive waste storage areas meet local codes for the storage of ~~ignitables~~ignitable materials. Fire protection is provided with portable fire extinguishers and a sprinkler system. The ignitable waste storage area is located more than 50 feet from the property line in accordance with State and Federal Regulations for the storage of ignitable hazardous wastes.

~~All~~ Ignitable and r~~r~~eactive wastes, except bulk cyanides and sulfides, ~~are~~ can be stored at this facility in temperature controlled Bays A, B, or C, and ignitable waste can also be stored in Bays D and G, as identified in Table C-1.1 ~~only as double overpacked labpacks. Other reactive wastes, e.g. water reactives, oxidizers, organic peroxides and other temperature sensitive wastes are stored in temperature controlled Bay A~~. Any storage limitations are identified in the footnotes under Table C-1.1. ~~No ignitable wastes (USDOT Class 3) or spontaneously combustible (USDOT Division 4.2) wastes will be stored in Bay A.~~ A fire suppression system installed in accordance with the New York State Fire Code and approved by the Fire Department is provided for Bays A, B, C, D, E and G, and Building 4. Only f~~F~~orklifts conforming to Types DY, EE or EX specified in NFPA 505-4.2.3.1 and OSHA 1910.178~~(c)~~©(2)(iv) will be used for handling ignitable and reactive wastes ~~stored in Bays B, C and G or for handling reactive wastes stored in Bay A~~.

Incompatible wastes are placed within separate storage ~~bays~~areas. ~~The s~~Storage bays are dedicated for the storage of certain waste types ~~as previously explained~~. The six storage bays, and Building 4, are provided with secondary containment to keep potential spills within ~~a bay~~the area.

The principal source of incompatibility is between spent corrosives and the materials with which they may react. In the corrosive waste ~~Bay~~ storage areas Bay E and Building 4~~D~~, acids will be stored in the Northern Row and alkalis will be stored in the Southern Row separated by a distance of 8 feet.

~~The principal source of incompatibility is between spent corrosives and the materials with which they may react, such as plating wastes. Plating wastes are stored in Bay E.~~

As described in Attachment I, prior to shipment to ~~N e x e o Univar~~the Binghamton facility, each customer must label each container of waste with the WPS number in addition to the information required by hazardous waste regulations. The WPS number on each container, the WPS data which has been provided by the customer and confirmed by the disposal firm, and the waste shipment identification on the hazardous waste manifest are adequate information for the segregation of incompatible waste streams. The wastes will be segregated according to standard USDOT compatibility categories. Unmarked or unknown wastes are not accepted by ~~Nexeo~~the permittee. Guidance for ensuring compatibility of packed waste is obtained from several sources. ~~Nexeo~~ The permittee maintains a copy of the USD~~O~~ T - Hazardous Materials Table 49 CPR 172.101. This table lists requirements for handling, packing, transporting and storing materials by USDOT hazard classification. The wastes are segregated and stored at ~~Nexeo~~ the Binghamton facility in accordance with USDOT Table 49 CPR 177.8~~4~~"8 "Segregation and Separation Chart of Hazardous Mater~~i~~"al" and as per the EPA documen~~t~~", "A Method for Determining the Compatibility of Hazardous Wastes (EPA-600/2-80-07~~6~~")." Additionally, ~~Nexeo~~ the permittee uses Material Safety Data Sheets (MSDS) as a supplemental source of information on chemical/physical properties and hazards.

D.4 AIR EMISSION STANDARDS FOR CONTAINERS

Provided in Attachment X.

D.5 LOADING/UNLOADING AND STAGING

The loading/unloading and drum staging area and the truck staging areas are shown in ~~Appendix D~~Attachment A-2. The truck staging area is an ~~8 inch thick~~8-inch-thick asphalt pad coated with an impervious seal. The wastes are transferred directly from the truck into the drum unloading/loading and staging area located inside the building by ~~fork lift~~forklift or hand pallet trucks. ~~Nexeo~~ The permittee transports the wastes in its own transport vehicles. These vehicles are equipped with a secondary containment system designed to capture wastes, if any, released into the storage compartment of the vehicle. Before the waste drums are transferred from the truck into the building, they are inspected by the permittee~~Nex~~'~~eo~~'s trained personnel to ensure that the lids are properly secured and the containers are structurally sound. The loading/unloading and hazardous waste container storage areas are coated with an impervious coating and inspected daily for cracks, coating damage, erosion, wet spots etc., as specified in the inspection schedule in Attachment II.

On Mondays, Tuesdays, Wednesdays and Thursdays, the containers from the trucks will be unloaded into the building within 16 hours of arrival at the facility. Vehicles arriving after work hours on Fridays or holidays will be off-loaded before 12 noon of the next working day. Vehicle holding containers of waste will be staged at the facility in the truck staging area shown in ~~Appendix D~~Attachment A-2.

The loading/unloading and drum staging area and the truck staging areas are shown in ~~Appendix D~~Attachment A-2. The truck staging area is an ~~8 inch thick~~8-inch-thick asphalt pad coated with an impervious seal. The wastes are transferred directly from the truck into the drum unloading/loading and staging area located inside the building by ~~fork lift~~forklift or hand pallet trucks. ~~Nexeo~~ The permittee transports the wastes in its own transport vehicles.

These vehicles are equipped with a secondary containment system designed to capture wastes, if any, released into the storage compartment of the vehicle. Before the waste drums are transferred from the truck into the building, they are inspected by the permittee~~Nex'eo~~'s trained personnel to ensure that the lids are properly secured and the containers are structurally sound. ~~The loading/unloading and hazardous waste container storage areas are coated with an impervious coating and inspected daily for cracks, coating damage, erosion, wet spots etc., as specified in the inspection schedule in Attachment II.~~

Section B
FACILITY DESCRIPTION

B.1 GENERAL DESCRIPTION
[40 CFR 270.14(b)(1), 6 NYCRR 373-1.51(a)(2)(i)]

The Nexeo Solutions, LLC (Nexeo) facility is located at 3 Broad Street, Binghamton, Broome County, New York. The total facility size is 2.362 acres.

The street address of the facility is:

~~Nexeo~~ Univar Solutions USA ~~, LLC~~ Inc.
3 Broad Street
Binghamton, NY 13902

The mailing address of the facility is:

~~Nexeo Solutions, LLC~~Univar Solutions USA Inc.
P.0. Box 1300
Binghamton, NY 13904

The latitude and longitude of the facility are:

Latitude: 42º 07’ 11”N
Longitude: 75º 53’ 28” W

The facility is owned by Nexeo. A copy of the property deed and legal description of the site is included in Attachment B-1.

The facility is located in an area which is zoned as general industrial and as such is compatible with the land use in the area. The properties immediately adjacent to the facility area include the Delaware and Hudson railroad tracks to the west, Bevier Street to the south, Broad Street to the east, and the Binghamton Public Works Department site to the north.

The facility once served as a solvent and chemical distribution site. These operations are no longer performed. The facility is a storage site for customer generated hazardous waste. Customers are general industrial companies including: coatings, inks, printing, adhesive, and metal working, and general manufacturing companies.

Off-site generated hazardous wastes are transported from generator location to the Nexeo facility in containers which meet U.S. Department of Transportation (DOT) requirements. Incoming containers are placed on pallets and stored in the designated hazardous waste storage area. Containers are kept closed. The facility does not commingle wastes. Hazardous wastes are stored until a sufficient quantity is accumulated for shipment to an authorized recycling, treatment, or disposal facility.

The types of hazardous waste codes that may be stored at the facility are listed in Section A of this permit application. The waste characteristics of the permitted wastes are described in detail in Table C-1 of this permit application. The facility is currently permitted to store ~~42,900~~53,130 gallons of hazardous waste.

B.2 TOPOGRAPHIC MAPS

B.2.a General Requirements
[40 CFR 270.14(b)(19), 6 NYCRR 373-l.5(a)(2)(xix)]

The following maps, drawings, and pictures are included as Attachments to this section.

- Attachment B-2 – Environmental Plan (scale: 1 inch equals 40 feet) showing hazardous waste storage areas, facility surface water flow, and legal boundaries of the facility.
- Attachment B-3 – A Flood Insurance Rate Map for Binghamton which indicates that the facility is located outside of the 100 year floodplain.
- Attachment B-4 – A wind rose for Binghamton, NY.

B.2.b Additional Requirements for Land Disposal Facilities
[40 CFR 270.14(c)(3) and (4)(I), 264.95, 264.97]

The facility is not a land disposal facility.

B.3 LOCATION INFORMATION
[40 CFR 270.14(b)(11)]

B.3.a Seismic Requirements
[40 CFR 270.14(b)(11)(i) and (ii), 264.18(a), Part 264 Appendix VI]

The site is not subject to a seismic standard because the facility is not a ‘new’ facility and it is not located in a jurisdiction identified in Part 264, Appendix VI.

B.3.b Floodplain Requirements
[40 CFR 270.14(b)(11)(iii), 264.18(b), 6 NYCRR 373-l.5(a)(2)(xi)]

The facility is not located in a 100 year flood zone.

B.4 TRAFFIC PATTERNS
[40 CFR 270.14(b)(10), 6 NYCRR 373-l.5(a)(2)(x)]

Truck traffic volume averages approximately 3 semi-trucks per day.

The facility has a truck entrance gate which is closed and locked when facility personnel are not

present. Access is limited to authorized vehicles. Warning signs are posted at the gate that state "Danger – Unauthorized Personnel Keep Out". The hazardous waste storage areas are located inside Building #1, ~~and~~ Building #2, and Building 4.

Trucks transporting off-site waste to the facility unload containers on a loading dock. The drummed waste is placed on pallets and moved by fork-lift to the storage areas. Shipments of waste going out of the facility are moved on pallets by ~~fork lift~~forklift to the loading dock and loaded into trucks.

The access street is Broad Street, an asphalt-paved street routinely used by transport trucks weighing 80,000 pounds (gross). Broad Street is maintained by the City of Binghamton. The facility's operations do not significantly increase traffic volume in the area.

ATTACHMENT X – AIR EMISSIONS STANDARDS FOR CONTAINERS

As provided in 6 NYCRR 373-2.29(g)(2), the facility uses Level 1 and Level 2 controls for controlling air pollutant emissions from containers subject to these regulations since the containers smaller than 0.46 cubic meters, and containers larger than 0.46 cubic meters in light and non-light material service are used at the facility. Level 3 controls are not required because no waste stabilization processes take place at the facility.

All containers used at the facility are managed in accordance with the applicable DOT regulations on packaging hazardous materials for transportation specified in 49 CFR part 107, subpart ~~–~~B - Exemptions; 49 CFR part 172 - Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and training requirements; 49 CFR part 173-Shippers - General Requirements for Shipments and Packages; and 49 CFR part 180 - Continuing Qualification and Maintenance of packaging as incorporated by reference in 370.1(e).

For the purpose of complying with this requirement, no exceptions to the 49 CFR part 178 or part 179 regulations are claimed except for labpacks managed in accordance with the requirements of 49 CFR part 178 complying with the exceptions for combination packaging specified in 49 CFR 173.12(b).

All containers are equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes or other opening spaces into the interior of the container. The covers of the containers will be designed and made in accordance with 6 NYCRR 373-2.29(g)(3)(ii) and 6 NYCRR 373-2.29(g)(4)(i).

Containers are not opened.~~.~~ Containers are kept closed all the time. The containers are inspected daily and if defects are detected in the cover or closure device, it is rectified within 24 hours. If repair of the defect cannot be completed in 24 hours, the contents in the drum will be removed and transferred to another container and closed properly.

The facility maintains a copy of the procedure used to ensure that containers which do not meet applicable DOT regulations are not managed at the facility.

3 BROAD STREET

BINGHAMTON, NY 13902

EPA ID. No: YD049253719

DEC Permit No: 7-0302-00068/00011

6 NYCRR Part 373

FINAL PERMIT ATTACHMENT M

Permit Modifications

Permit Modification – Revision 1, April 2023~~2012~~

ATTACHMENT M – MAJOR/MINOR MODIFICATION

The permit may be modified for causes as allowed under 6 NYCRR 373-1.7. General Permit Condition 4 in page 2 of this permit and 6 NYCRR 621.14. Modification shall be requested in writing as required by 6 NYCRR 621.13 and 621.14. Requests for modifications shall be submitted to the Regional Permit Administrator for approval and modification of the permit.

PERMIT MODIFICATION LOG

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Module II		88A to 88I	11/20/2006	11/20/2006	The General Groundwater Conditions that were included in the 15, 2000) not included in the current permit. These conditions were updated and now incorporated into the current permit as Appendix E to the Module
Attachment I Waste Analysis Plan	136	136, l36A, 1368, & l36C	~~May 1 , 2007~~5/1/07	5/1/2007	For managing 10-Day Transfer Wastes
Attachment M Permit Modification Log	328	328	~~0~~1/~~0~~4/2007	1/4/2007	Updated
All attachments	N/A	N/A	August 2011	August 2011	As part of the permit renewal and transfer of ownership and operations from Ashland to Nexeo, removed all references to Ashland and replaced with “Nexeo” or “facility”; changed abbreviation of WMPS to WPS; replaced examples of WPS, LDR, and driver’s checklist with Nexeo equivalent forms; removed references to RCRA Compliance Kit in Attachment III, updated

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
					corporate emergency contact telephone number.
Permit Special Conditions	Permit Page 4 and 5	Same	April 2023 (Revision 1)	10/31/22	Corrected typos such as "Quality", capitalization, and added wording for clarification; removed double overpacked lab pack conditions for organic peroxides and other temperature sensitive waste; identified Bay E and Building 4 as corrosive storage; updated waste separation, stacking, and aisle space procedures to reflect regulations; clarified that the facility does not accept DOT Division 1.1 through 1.6 explosive wastes (including DOT Type A, B, and C explosives); deleted the term "double overpack" because it is not correct terminology for DOT packaging; reorganized statement regarding Class 1A flammable liquids; added Class 1 organic peroxides to Special Condition 8.
Schedule 1 of Module I.A	S1-1 and S1-2	Same	April 2023 (Revision 1)	10/31/22	Updated waste descriptions to reflect terminology used in regulations; added ignitable (D001) waste to Bay A, Bay D; added corrosive waste (D002) to Bay E and removed from Bay D; added additional toxicity characteristic and listed waste descriptions to Bay G to match Table C-1.1; added waste description and other information for Building 4 (same as Bay E); increased

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
					storage capacity to 53,130 gallons.
Module III.D.3	III-1	Same	April 2023 (Revision 1)	10/31/22	Updated aisle space and stacking requirement to reflect regulations.
All Attachments included in Modification	All	All	April 2023 (Revision 1)	10/31/22	Updated revision date to Revision 1, April 2023; changed name from Nexeo to Univar, the permittee, or the Binghamton facility.
Part A and Attachment A-1, A-2, A-3 Attachment VI, Appendix B	Part A and Attachment A-1, A-2, A-3 Attachment VI, Appendix B	Part A and Appendix A-1, A-2, and A-3 Attachment VI, Appendix B	April 2023 (Revision 1)	10/31/22	Revised site location, facility layout drawing, and photo log to reflect current features of the site including Building 4
Attachment–I - Waste Analysis Plan	Page 21	Same	April 2023 (Revision 1)	10/31/22	Updated U160 waste code to remove “double overpacked” condition and indicated waste would be lab packed and stored in temperature-controlled area.
Attachment–I - Waste Analysis Plan	Page 24	Same	April 2023 (Revision 1)	10/31/22	Deleted paragraph with repetitive information (information is already included in Table C-1.1).
Attachment–I - Waste Analysis Plan	Page 25-28	Same	April 2023 (Revision 1)	10/31/22	Revised Table C-1.1 and following paragraphs to reflect changes to Schedule 1 of Module I.A.; updated wording for clarification
Attachment–I - Waste Analysis Plan	Page 31	Same	April 2023 (Revision 1)	10/31/22	Replaced bays with concrete curbed areas
Attachment–I - Waste Analysis Plan	Page 34 (Section C.2)	Same	April 2023 (Revision 1)	10/31/22	Updated aisle space and add “concrete” to description of curb

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment–I - Waste Analysis Plan	Page 37 (Section C.2.e)	Same	April 2023 (Revision 1)	10/31/22	Updated aisle space and add “concrete” to description of curb; added description of self-reactive waste (including DOT Type A, B, and C) and replaced “stored” with “accepted”
Attachment–I - Waste Analysis Plan	Page 42	Same	April 2023 (Revision 1)	10/31/22	Removed condition “l” because these are storage guidelines, not prohibited wastes, which are identified in other sections of the permit
Attachment IV – Security Plan	Page 1	Same	April 2023 (Revision 1)	10/31/22	Added “Part A” to clarify location of Attachment A-2 (the appropriate attachment number, deleted Attachment 6, Appendix B); added Building 4, removed statement “The ignitable, reactive, poisons, toxics and corrosive hazardous waste storage areas are adjacent to the plant administrative office, which are in the same building.”
Attachment V – Preparedness and Prevention	Page 1	Same	April 2023 (Revision 1)	10/31/22	Changed “bays” to “permitted hazardous waste storage areas”
Attachment–V - Preparedness and Prevention	Page 2 (Section F.3.b)	Same	April 2023 (Revision 1)	10/31/22	Updated aisle space; corrected typo “forklift”; updated to Attachment A-2
Attachment–V – Preparedness and Prevention	Page 3 (Section F.5.a)	Same	April 2023 (Revision 1)	10/31/22	Updated aisle space and added detail describing curb; corrected typos; corrected typo “forklift”
Attachment–V - Preparedness and Prevention	Page 4	Same	April 2023 (Revision 1)	10/31/22	Added separation by curbs or other means, corrected typos/spelling; removed sentence “Lithium batteries will not be accepted for storage at the facility.”; updated Section F.5.c

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment VII – Closure Plan	Page 2	Same	April 2023 (Revision 1)	10/31/22	Updated storage capacity to account for Building 4
Attachment VII – Closure Plan	Page 3	Same	April 2023 (Revision 1)	10/31/22	Updated description of storage areas to account for Building 4; identified Attachment A-2; updated wording for clarification
Attachment VII – Closure Plan	Page 3	Same	April 2023 (Revision 1)	10/31/22	Updated amount of anticipated rinsate based on previous experience with closures at other locations; updated number of samples per bay from one to two, and one sample from Building 4, which is consistent with closure plans at other Univar locations
Attachment VII – Closure Plan, Section I.3	Page 5	Same	April 2023 (Revision 1)	10/31/22	Revised closure cost estimate to include Building 4
Attachment VII – Closure Plan, Section I.4	Page 5	Same	April 2023 (Revision 1)	10/31/22	Revised financial assurance mechanism to reflect what is currently used (closure bond)
Attachment VIII – Management of Waste in Containers	Page 1-2	Same	April 2023 (Revision 1)	10/31/22	Clarified that reactive is in storage bays B and C only; corrected typo; changed Appendix A to Attachment A-2 (throughout Attachment VII); changed wording for clarification (customer's); removed paragraph under Container Storage Management and replaced with reference to Table D-1 to avoid duplicative language found in other parts of the application

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment VIII – Management of Waste in Containers	Page 2	Same	April 2023 (Revision 1)	10/31/22	Changed diking to curbing; added Building 4; additional updates for clarification purposes; removed requirement for site diagram to be posted; removed sentence "non hazardous wastes are not stored in the hazardous waste storage areas; changed Appendix A to Attachment A-2 (throughout Attachment VII); added Table D-1 under Section D.1.a
Attachment VIII – Management of Waste in Containers, Table D-1	Page 3	Same	April 2023 (Revision 1)	10/31/22	Revised Table D-1 and following paragraphs to reflect changes to Schedule 1 of Module I.A; deleted sentence about organic peroxide and non cyanide and sulfide reactive wastes in double overpacked lab packs; clarified that reactive wastes are stored in Bay A
Attachment VIII – Management of Waste in Containers	Page 4 – 6 (Section D.1.a)	Same	April 2023 (Revision 1)	10/31/22	Added Building 4; updated paragraphs to reflect previous changes identified including aisle space; changed ramp height to at least 4 inches; deleted "in Bay A" in reference to raised pallets and removed additional detail regarding storage locations because this is identified in Table D-1; changed specific name of floor coating to more general epoxy coating; removed reference to Appendix C; indicated technical specifications of the coating is identified in the independent secondary containment assessment required by Module III,

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
					Section K.1 of the Permit; changed Appendix B to A; corrected typo in thickness of curb; updated waste storage area descriptions to reflect current conditions; corrected spelling and added wording for clarification; deleted square footage of Building 1 (dimensions provided in containment calculations); updated aisle space and stacking height; added "ELAP certified" to lab description
Attachment VIII – Management of Waste in Containers	Not Applicable	Page 7 - 11 (Section D.1.a.3.c)	April 2023 (Revision 1)	10/31/22	Changed Appendix to Attachment A-2
Attachment VIII – Management of Waste in Containers	Not Applicable	Page 11 - 12	April 2023 (Revision 1)	10/31/22	Added secondary containment calculations for Building 4
Attachment VIII – Management of Waste in Containers	Page 12	Page 13	April 2023 (Revision 1)	10/31/22	Updated paragraphs to reflect previous changes identified
Attachment VIII – Management of Waste in Containers	Page 13-14	Page 13-14	April 2023 (Revision 1)	10/31/22	Changed reference from Appendix D to Attachment A-2; corrected typos; added wording for clarification; deleted / added wording in Section D.3 to avoid repeating what is already included in Table C-1.1; updated sentence regarding incompatibility with spent corrosives, removing plating waste reference to keep it general

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment IX – Facility Description & Supporting Documents	Page 1-2	Same	April 2023 (Revision 1)	10/31/22	Changed Nexeo to Univar; updated storage capacity for Building 4
Attachment IX – Facility Description & Supporting Documents	3	Same	April 2023 (Revision 1)	10/31/22	Added Building 4; corrected typo
Attachment M – Permit Modifications	Not Applicable	Page 2 - 4	April 2023 (Revision 1)	10/31/22	Identified permit modifications; added column for effective date of permit modifications
Table I-1 – Closure Cost Estimated	Page 1 – 2	Same	April 2023 (Revision 1)	10/31/22	Updated closure cost estimate to include Building 4; removed Line Item 3 because it is included in Line Item 2 – updated line item numbers; updated rinsate samples (see previous explanation); clarification that disposal costs are for solids and liquids; removed extra health and safety costs because it is included in supervision and certification cost; combined supervision and certification costs; deleted obsolete footnotes and added that costs are developed per recent costs obtained for Univar Kansas City
Attachment I-1 – Trust Agreement and Certificate of Liability Insurance	Page 1	Same	April 2023 (Revision 1)	10/31/22	Changed to “Financial Guarantee – Closure Bond and Certificate of Liability Insurance” to reflect current closure cost mechanism (closure bond)

Table I-1
CLOSURE COST ESTIMATE

Item	Quantity	Unit	Unit Cost	Total
Hazardous Waste Container Storage Area Removal and Disposal of Waste Inventory and Decontamination				
1. Load, Transport, and Dispose Containerized Waste	~~780~~966	drum	$~~330~~[a] 350[a]	$~~257,400~~338,100
2. Storage Area Decontamination: Concrete Pad (s~~S~~ubcontractor cost including labor, equipment rental, and personal protective equipment)	~~5,000~~8,580	square feet	$1.50[b]	$~~7,500~~12,870
~~3.Project Coordination, Planning and Sample Collection (labor and travel expenses)~~	~~1~~	~~each~~	~~$5,000~~	~~$5,000~~
~~4.~~3. Sample Analysis: ~~12~~ 10 samples, ~~2~~ 1 for each storage bay or area, and 1 trip blank, ~~(includes QA/QC: trip blank,~~ 1 method blank, 1 equipment blank)	~~12~~13	each	$1,~~791~~ 000[b] ~~e~~	$~~21,492~~13,000
~~5.~~ 4. Collection and Disposal of Decontamination Generated Wastes: Rinsate and Solids[b,d]	~~30~~28	drum	$~~195~~350[b]	$~~5,850~~9,800
~~Solids[b,e]~~	~~30~~	~~drum~~	~~$415~~	~~$12,450~~

SUBTOTAL	**$ ~~309,~~ ~~692~~ 373,770**

Table I-1
CLOSURE COST ESTIMATE

Item	Quantity	Unit	Unit Cost	Total
Other Costs: Mobilization, Bonds, & Insurance 2.5% of Direct Costs				$~~7,742~~9,344
~~Health and Safety[f]~~				~~$1,000~~
Supervision and Certification 5% of Direct Costs				$~~15, 485~~ 18,688
~~Certification~~				~~$1,500~~
SUBTOTAL (Other Costs)				$~~25,727~~28,032
TOTAL COSTS (Direct and Other)				$401,802~~335,419~~
Contingency at 10%				$40,180~~33,542~~
Contingency for Soil Sampling at 15%[cg]				$60,270~~50,313~~
TOTAL ESTIMATED CAPITAL COSTS (Rounded to nearest $100) at ~~2012~~ 2022 COST				**$ 502,252~~419,274~~**

[a] Average Unit Cost: disposal, transportation, and material.

[b] Estimated based ~~on costs for closure of a hazardous waste storage facility in Jackson, Mississippi~~on costs obtained for Univar Kansas City, Kansas facility

~~[c] Estimated based on 6/6/2012 quote for sampling for closure of a hazardous waste storage facility in Moraine, Ohio~~

~~[d] Liquid wastes will be transported off-site for incineration if possible.~~

~~[e] Solid wastes will be transported off-site for land disposal.~~

~~[f] Health and safety costs in addition to labor (supervision), includes equipment rental and personal protective equipment.~~

[cg] No soil contamination is anticipated as a result of container storage and handling. Nevertheless, a 15% contingency has been added for the sampling, analysis, removal, and disposal of contaminated soil.

ATTACHMENT I-1

FINANCIAL GUARANTEE – CLOSURE BOND

~~TRUST AGREEMENT~~ AND CERTIFICATE OF LIABILITY INSURANCE

Enclosure 2 – Response to Comments for Permit Modification – Revision 0, November 2022

NYSDEC Comment #1 (Letter of Transmittal): Typically, the Department receives a formal letter from the Permittee, which briefly summarizes the general scope and provides reason for the permit modification. Please provide such letter with this minor modification request as EHS Support LLC is not a Permittee for this facility.

Also note all requests for permit modification must include the required certification language provided in 6 NYCRR Part 373-1.4(a)(5)(iv) certifying the submittal as either part of the above referenced cover letter or as an enclosure to the modification request. Drawings submitted as part of the modification request must be stamped and certified by a New York State licensed P.E. with the same language as referenced herein.

As a general comment, all revised pages should have the revision number, and date (month, year)

Univar Response: Provided cover letter with this submittal and updated application to address these requests.

NYSDEC Comment #2 (Special Conditions, Page 4 of 5): In accordance with Module II, Building 4 will need to be assessed and listed as a SWMU, and included in the SWMU/AOC Summary Table in the permit.

Please also supply Department with specific information regarding how Building 4 meets the regulatory requirements of Part 373-2.9(f) and 373-1.5(b).

Univar Response: Building 4 was added to Schedule I, Module I and will be added to the SWMU / AOC Summary in Section XI of the permit renewal application when comments on the renewal application are received from NYSDEC. See additional responses below.

NYCRR 373-2.9(f) Required aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

Aisle space in all of the hazardous waste storage areas including Building 4 are addressed in Special Conditions, Page 4 of 5; Module III.D.3; Attachment I, Section C.2 and C.2.e; Attachment V, Section F.3.b and F.5.a; Attachment VI, Section 9; Attachment VIII, Table D-1, Section D.1.a.

NYCRR 373-1.5(b) Specific information requirements for containers. Except as otherwise provided in section 373-2.9(a) of this Part, owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

(1) A description of the containment system to demonstrate compliance with section 373-2.9(f) of this Part. Show at least the following:
See below.

(i) basic design parameters, dimensions, and materials of construction;

The requirements outlined in the permit apply to Building 4. A secondary containment assessment was also completed on Building 4 in accordance with Module III.K (Enclosure 4).

(ii) how the design promotes drainage or how containers are kept from contact with standing liquids in the containment system;

Section D.I.a.3.d.

(iii) capacity of the containment system relative to the number and volume of containers to be stored;

Schedule 1 of Module I; Table D-1; Section D.I.a.3.c.

(iv) provisions for preventing or managing run-on; and

Section D.I.a.3.d.

(v) how accumulated liquids can be analyzed and removed to prevent overflow.

Section D.I.a.3.d.

(2) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with section 373-2.9(f)(2) of this Part, including:
(i) test procedures and results or other information to show that the wastes do not contain free liquids; and
(ii) a description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

Section D.1.b.

(3) Sketches, drawings or data demonstrating compliance with section 373-2.9(g) of this Part (location of buffer zone and containers holding ignitable or reactive wastes) and paragraph (h)(3) of such section (location of incompatible wastes), where applicable.

Ignitable and reactive waste is not stored in Building 4.

(4) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with sections 373-2.9(h)(1)-(2) and 373-2.2(i)(2)-(3) of this Part.

Special Conditions, Page 4 of 5; Section C.1.b; Section C.2; Section F.2.b.1; Section F.5; Section D.1; Section D.1.2.a; Section D.3; Section D.4; Attachment X.

(5) Information on air emission control equipment, as required in subdivision (n) of this section.

Section D.4; Attachment X.

NYSDEC Comment #3 (Special Conditions, Page 4 of 5): Please provide the reason for listing organic peroxide under "not authorized to accept" but having it listed as being stored in Bay A in the subsequent tables.

Univar Response: As indicated in Section F.5.d, only Class I Organic Peroxides are restricted from storage. Univar will accept other types of organic peroxides as indicated in the permit application but added additional detail as needed to Schedule 1 of Module 1 and Table C-1.1.

NYSDEC Comment #4 (Special Conditions, Page 4 of 5): Please specify why double overpacks have been removed for oxidizers.

Univar Response: Oxidizers are shipped and stored in DOT compliant containers, which is identified in multiple sections of this permit application. The words “double overpack” is not terminology used to identify these packaging systems.

NYSDEC Comment #5 (Schedule 1 of Module I): How are the temperature controls in all bays (except for G) operated? Is backup power provided to cool the necessary bays in case of a power outage?

Univar Response: Temperature is controlled in Areas A, B, C, D, G, E and Building 4 with the facility’s heating system powered by natural gas in the various areas. Backup power is not available.

NYSDEC Comment #6 (Schedule 1 of Module I): Please enlarge the cell to show "oxidizer", as provided in the finalized 2013 Permit.

Univar Response: Updated application to address this request.

NYSDEC Comment #7 (Schedule 1 of Module I): Please specify the types of D001 waste to be stored with organic peroxides. The Department is concerned that these chemicals may be classified as "explosives", and therefore incompatible to be stored with organic peroxides (according to EPA Chemical Compatibility Chart).

Univar Response: DOT Division 1.1 through 1.6 explosive wastes (including DOT Type A, B, and C explosives) are prohibited from storage at the Binghamton facility. Univar will segregate ignitable D001 waste and organic peroxides in separate secondary containment areas.

NYSDEC Comment #8 (Schedule 1 of Module I): Please provide clarification on why the Permittee is requesting to store D001 in Bay A. The 2013 Permit only allows D001 storage in Bays, C, D, and G.

Univar Response: Univar is proposing to permit storage of ignitable waste in Bays A, B, C, D and G. Univar cannot predict what types of wastes the facility will receive and will benefit from having more flexibility within the storage areas while still maintaining proper segregation of incompatible wastes. If we have more ignitable wastes in a shipment, we will have access to this additional storage area.

NYSDEC Comment #9 (Schedule 1 of Module I): Are solid D001 waste separated from the liquid D001 waste? Special Condition specifies that Class I and II flammable liquids having capacity >30 gallons cannot be stacked 2 tiers high.

Univar Response: Each storage area is operated as if it will store liquid hazardous waste (refer to Sections C.1.b; D.1.a; D1.b). As indicated in the Special Conditions, containers of Class I and II flammable liquids having a capacity of 30 gallons or greater are not stored more than one container high; however, Class III flammable liquids can be stacked up to two tiers high as indicated in Module III.D.3 of the Permit.

NYSDEC Comment #10 (Schedule 1 of Module I): Similar to above comment regarding separating liquid D001 waste from solid D001 since Class I and II flammable waste with capacity >30 gallons cannot be stacked two tiers high. However, from the Photo Log, it looks like Bay B has 55-gallon drums stacked two tiers high. Is this correct?

Univar Response: Univar adheres to the stacking height of Class I and II flammable wastes. The wastes identified in the photo log were not Class I and II flammable wastes.

NYSDEC Comment #11 (Schedule 1 of Module I): Hazardous waste code D001 was added to Bay D. The 2013 Permit lists D001 for storage only in Bays B, C, and G. Please confirm that the Bay D storage area meets all appropriate requirements (RCRA, NFPA, etc.) to store D001 waste.

Univar Response: Univar is requesting the option to store ignitable waste in Bays A, B, C, D and G. These storage bays meet the applicable requirements for storage of ignitable hazardous waste.

NYSDEC Comment #12 (Schedule 1 of Module I): Please insert a comma between "Non-ignitable" and "corrosive (D002)" to separate these two types of wastes.

Univar Response: Updated application to address this request.

NYSDEC Comment #13 (Schedule 1 of Module I, Page S1-1): Please include the missing EPA ID #.

Univar Response: Updated application to address this request.

NYSDEC Comment #14 (Waste Analysis Plan, Table C-1.1): Please address the same comments related to hazardous waste code D001 as seen on Page S1-1 in Schedule 1 of Module I.

Univar Response: See previous response to NYSDEC Comments #7-11.

NYSDEC Comment #15 (Waste Analysis Plan, Table C-1.1): Please explain why the usage of and the words "double overpack" have been removed for water reactive wastes.

Univar Response: See previous response to NYSDEC Comment #4.

NYSDEC Comment #16 (Waste Analysis Plan, Table C-1.1): Please address the same comment as made on Page 4 of 5, Item 8 of the "Special Conditions" page. What is the difference between the "Class 1 organic peroxides" listed as not authorized for acceptance from the "organic peroxides" listed as able to be stored in Bay A.

Univar Response: See previous response to NYSDEC Comment #3.

NYSDEC Comment #17 (Waste Analysis Plan, Page 27): As this is the header for the section just below, it should be kept.

Univar Response: Updated application to address this request.

NYSDEC Comment #18 (Attachment IV, Page 1): Please note there is no "attachment 6" in Appendix B. Please correct this reference.

Univar Response: Updated to indicated Part A, Attachment A-2.

NYSDEC Comment #19 (Closure Plan, Page 4): Please specify why the number of rinsate samples was reduced from two to one.

Univar Response: Collecting one rinsate sample per bay is Univar's procedures for all permitted hazardous waste storage facilities and is a composite sample is sufficient to represent the wastes stored in the individual storage areas (bays).

NYSDEC Comment #20 (Closure Plan, Page 5): Does the facility intend to use both Financial Guarantee AND a Closure Bond? Financial Guarantee cannot be used in conjunction with a Surety Bond according to Part 373-2.8(d)(6). Financial mechanism for Closure are limited to combinations of trust funds, surety bonds, letters of credit, and insurance.

Univar Response: Updated to closure bond.

NYSDEC Comment #21 (Attachment VIII, Page 1): Please clarify exactly which waste is in "B and C only".

Univar Response: Because the storage locations are described in detail in Table D-1, to avoid confusion, Univar deleted this paragraph and instead referenced Table D-1.

NYSDEC Comment #22 (Attachment VIII, Page 1): Please add the revision dates and page numbers to subsequent pages of this attachment.

Univar Response: Updated application to address this request.

NYSDEC Comment #23 (Attachment VIII): Upon Department approval of storing D001 in Bay A, please update this sentence also.

Univar Response: Because the storage locations are described in detail in Table D-1, to avoid confusion, Univar deleted this paragraph and instead referenced Table D-1.

NYSDEC Comment #24 (Attachment VIII): Appendix A-2 is not attached to this Mod. Please provide this page for DEC review of the floor plan and configuration.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #25 (Attachment VIII): Please edit all references in terms of the 2013 Permit. The 2013 Permit also does not appear to have a Attachment A-2. Please correct all references of "Attachment A-2" to the correct reference in the 2013 Permit.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #26 (Attachment VIII): Please correct this reference in terms of the 2013 Permit.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #27 (Attachment VIII): Please correct the typo.

Univar Response: Corrected.

NYSDEC Comment #28 (Attachment VIII): Please review and correct this text. Was it intended to say "at least four and 1/2 inches"?

Univar Response: Changed to 4 inches.

NYSDEC Comment #29 (Attachment VIII): Appendix A in the 2013 Permit is the list of Key Emergency Contacts. Please correct the reference here.

Univar Response: Corrected to Appendix B of Attachment VIII.

NYSDEC Comment #30 (Attachment VIII): Please provide the correct reference for the drum storage layout from the 2013 Permit.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #31 (Attachment VIII): Appendix A in the 2013 Permit is the list of Key Emergency Contacts. Please correct the reference here.

Univar Response: Corrected to Appendix B of Attachment VIII.

NYSDEC Comment #32 (Attachment VIII): Please correct to Appendix A-2.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #33 (Attachment VIII): Please provide the reason why the specific name of floor coating was changed to more general epoxy coating. Have the floor coatings changed?

Univar Response: The facility needs the operational flexibility to use an equivalent epoxy coating product in case it is not available due to supply chain issues or discontinued.

NYSDEC Comment #34 (Attachment VIII): Please specify that the lab used for analysis is ELAP certified.

Univar Response: Corrected.

NYSDEC Comment #35 (Attachment VIII): Please provide the correct reference for this area layout plan from the 2013 Permit.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #36 (Attachment VIII): Same comment as just above.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #37 (Attachment VIII): Same comment as just above.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #38 (Attachment VIII): Same comment as just above.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #39 (Attachment VIII): Same comment as just above.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #40 (Attachment VIII): Same comment as just above.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #41 (Attachment VIII): Same comment as just above.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #42 (Attachment VIII): This statement contradicts this modification request (of placing D001 in Bay A).

Univar Response: Updated paragraph with summary of ignitable and reactive waste storage.

NYSDEC Comment #43 (Attachment VIII): Please provide reasoning for removing this sentence as it was not provided in the modification log.

Univar Response: Although Univar could receive plating waste, it is not common and identifying this specific waste stream does not really add significance to this section. Compatibility is verified using multiple factors, including the source (i.e., plating). Univar moved a portion of this sentence to the previous paragraph, which addresses storage of corrosives.

NYSDEC Comment #44 (Attachment VIII): Please provide the correct reference for the truck staging area from the 2013 Permit

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #45 (Attachment VIII): Please provide the correct reference for this truck staging area from the 2013 Permit.

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #46 (Attachment VIII): Please provide the correct reference for this truck staging area from the 2013 Permit,

Univar Response: Attachment A-2 was provided in 2013 Part A and is provided as Enclosure 5.

NYSDEC Comment #47 (Attachment VIII): This paragraph appears to be a repeat of the above first paragraph. Please removed.

Univar Response: Deleted as requested.

NYSDEC Comment #48 (Attachment X): Please provided the reason for changing the part numbers. 40 CFR Part 172 is the correct citation for "Hazardous Materials Table, Special Provisions etc.."

Univar Response: This was not intentional and was corrected.

NYSDEC Comment #49 (Attachment X): Please confirm which citation is correct for the desired reference document.

Univar Response: This was not intentional and was corrected.

NYSDEC Comment #50 (Attachment M): Based on new formatting, please add the following column to the mod log: "Effective date of permit modification", and provide the appropriate dates.

Univar Response: Completed.

NYSDEC Comment #51 (Attachment M): Please provide the reason for removal of the double over packed lab pack for organic peroxide and other temperature sensitive waste, especially since these organic peroxides are being stored in Bay A with other D001 ignitable waste.

Univar Response: Oxidizers are shipped and stored in DOT compliant containers, which is identified in multiple sections of this permit application. The

words “double overpack” is not terminology used to identify these packaging systems.

NYSDEC Comment #52 (Attachment M): Please update this text to account for the increase of storage capacity to 53,130 gal.

Univar Response: Completed.

NYSDEC Comment #53 (Attachment M): Please also include that D001 was added to Bay A as well as Bay D.

Univar Response: Completed.

NYSDEC Comment #54 (Attachment M): Please provide the correct reference from the 2013 Permit.

Univar Response: Attachment A-2 is correct.

NYSDEC Comment #55 (Attachment M): Please modify the text to include additional changes made on this page, such as the change in # of soil samples from 20 to 10, and the removal of sample collection etc. in Table I-1," Closure Cost Estimate".

Please note that the associated Written Closure Plan, Inspection Plan, and Contingency Plan must also be updated to reflect any changes due to the requested modifications.

Univar Response: Completed. No other additional updates to the closure plan, inspection plan and contingency plan are necessary to reflect the requested modifications.

NYSDEC Comment #56 (Table I-1): Please provide the reason why sample collection labor costs were removed from the cost estimate.

Univar Response: These costs are included in Line Item 2 and Supervision and Certification 5% of Direct Costs.

NYSDEC Comment #57 (Table I-1): Please provide reason why the number of collected samples were reduced, despite increasing the number of SWMUs.

Univar Response: Collecting one rinsate sample per bay is Univar’s procedures for all permitted hazardous waste storage facilities and is a composite sample is sufficient to represent the wastes stored in the individual storage areas (bays).

NYSDEC Comment #58 (Table I-1): The Department requires a set number of samples based on the size of each SWMU/AOC area, the sidewalls (accounting for increase linear feet) of each, the number of sampling days, and specifies the

necessary trip/equipment/method blanks as well as duplicates. The number of samples will be reviewed at the time of permit renewal.

Univar Response: Comment acknowledged.

NYSDEC Comment #59 (Figure 1): Please provide an explanation for how this area is currently used and how it will be used in future.

Univar Response: This area is used for storage of empty drums, spill kits and other operational materials. It is not used to store waste.

Enclosure 3 – Certification for Permit Modification

CERTIFICATION
[6 NYCRR 373-1.4(a)(2) & (5), 373-1.5(a)(1); 40 CFR 270.11(a) & (c)]

2022 Permit Minor Modification Application
Univar Solutions USA Inc.
Binghamton, New York

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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 fine and imprisonment for knowing violations.

4/26/23

Chris Schmitt
ChemCare Regulatory Compliance Manager

Date

CERTIFICATION
[6 NYCRR 373-1.4(a)(2) & (5), 373-1.5(a)(1); 40 CFR 270.11(a) & (c)]

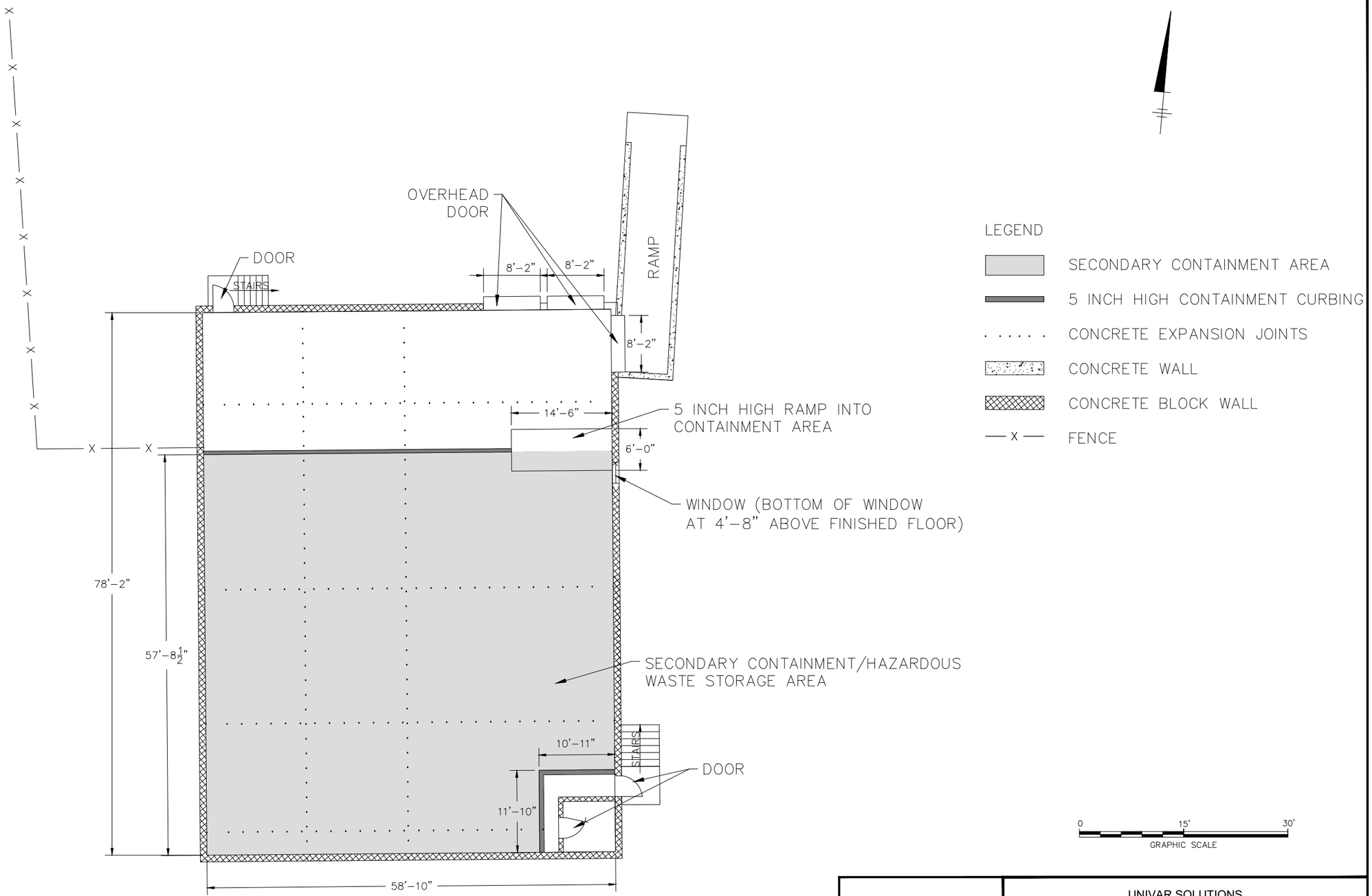
2022 Permit Minor Modification Application
Univar Solutions USA Inc.
Binghamton, New York

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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 fine and imprisonment for knowing violations.

4/20/23

Amy Bauer
Senior Compliance Specialist

Date



I, Christopher Engler, Professional Engineer certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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 fine and imprisonment for knowing violations.

STATE OF NEW YORK CHRISTOPHER DAVID ENGLER LICENSED PROFESSIONAL ENGINEER 069748

Professional Engineer's
CHRISTOPHER D. ENGLER

P.E.'s Number	State	Date Signed
069748	NY	10/12/2022

UNIVAR SOLUTIONS
3 BROAD STREET, BUILDING 4
BINGHAMTON, NEW YORK

BUILDING 4 FLOOR PLAN

ARCADIS

FIGURE
1

Enclosure 4 – Secondary Containment Evaluation

Univar Solutions

Univar Secondary Containment Assessment

Univar Binghamton

June 17, 2022
Rev August 22, 2022

Univar Secondary Containment Assessment

Univar Binghamton

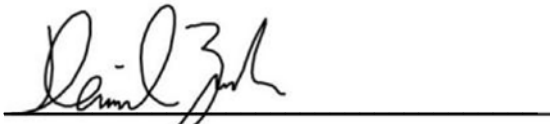
June 17, 2022

Rev August 22, 2022

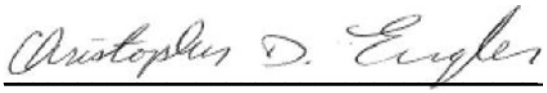
Prepared By:
Arcadis U.S., Inc.
One Lincoln Center, 110 West Fayette Street, Suite 300
Syracuse
New York 13202
Phone: 315 446 9120
Fax: 315 449 0017

Prepared For:
Chris Schmitt, CHMM
ChemCare Regulatory Specialist
Univar Solutions
3 Broad Street
Binghamton
New York

Our Ref:
10538525



Daniel Zuck, CPG
Senior Environmental Scientist



Christopher Engler, PE
Vice President/Principal Engineer

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Acronyms and Abbreviations

NYCRR - New York Codes, Rules and Regulations

NYSPE – New York State Professional Engineer

Executive Summary

Univar Solutions contracted Arcadis US Inc. to evaluate the secondary containments for 6 existing and 1 proposed hazardous waste storage areas, located at the Univar Solutions facility, 3 Broad Street, Binghamton, Broome County, New York. The secondary containment evaluation was performed in general accordance with the requirements of 6 NYCRR Part 373 and pursuant to Module III, Condition K(1) of the facility's hazardous waste management permit. Site review, visual observations, and document review were conducted to determine compliance with the applicable sections of 6 NYCRR Part 373.

The project site includes 6 separately designated hazardous waste storage areas that were subject to the secondary containment evaluation. In addition, one other storage area was included in the assessment, as it is under consideration for conversion to a hazardous waste storage area. Each of the 6 existing hazardous waste storage areas and one proposed hazardous waste storage area has secondary containment constructed of concrete with an epoxy coated surface.

Based on the observations and information available, the components and volume of the secondary containment systems at the subject facility are considered to be satisfactory for the intended function for the materials and quantities currently being stored. The following items do not necessitate immediate attention, but are presented for consideration.

The epoxy coating system is partially applied for Bay G, with elastomeric sealant temporarily being used to seal cracks and gaps. Information provided by facility representatives indicates that completing the epoxy coating system for Bay G is pending warmer temperatures, as required for appropriate material application. The interim conditions appear to be sufficient as a temporary control, until the epoxy coating system installation can be completed later this year.

Minor chipping of the epoxy coated concrete was observed along berm areas and appears to be the result of damage by equipment or from loading/unloading the hazardous waste containers. Measures should be implemented to limit potential damage to the epoxy-coated concrete surfaces.

Shelving units are located in Bay E and Building 4, and have posts affixed to the containment floors. Observations indicate that the locations around the posts may be prone to deterioration of the epoxy surface coating. The post locations should be periodically inspected by facility representatives to determine if conditions worsen or if any cracks or gaps develop at these locations that require sealing.

The roof in Bay G has some minor holes that appear to be where fasteners may have been previously located. Bay G also includes an overhead door not fully sealed to the exterior, with booms placed along the bottom. While Bay G is listed for storage of ignitable waste and does not include water reactive chemicals, the area should be monitored by facility representatives to determine if there is a concern for accumulation of precipitation into the secondary containment system that would require removal.

A roof leak was observed in the vicinity of Bay D, with water pooling outside the secondary containment. The secondary containment systems do not appear to be currently affected by the roof leak; however, it is suggested that this item be mitigated to reduce the potential for damage to the secondary containment systems. .

Wall sections in Building 1, in the vicinity of Bays A and B, exhibited evidence of damage to the existing concrete masonry units (CMU). This was likely a result from facility operations with fork truck equipment. The extent of

damage does not currently indicate imminent structural failure or significant deterioration. Measures should be implemented to limit potential damage from facility operations to the walls and other structural systems of the buildings with hazardous waste storage areas.

Findings of the secondary containment evaluation represent conditions observed and identified at the time of the site visit. If substantial changes or alterations occur to any of the referenced secondary containment areas, prior to the next scheduled 3-year evaluation, it may be necessary to conduct additional assessment and verification of the suitability for the secondary containment systems to function as intended.

NYSPE Certification

Project:	Evaluation of Secondary Containment Systems
	Bays A, B, C, D, E, and G, and Building 4
Project Location:	Univar Solutions
	3 Broad Street
	Binghamton, Broome County, New York
Project Owner:	Univar Solutions
	3 Broad Street
	Binghamton, New York 13902
Professional Engineer:	Chris Engler
NYS Registration Number:	069748
Firm:	Arcadis of New York, Inc.
	One Lincoln Center, Suite 300 | 110 W. Fayette St.
	Syracuse, New York 13202

Based on my review and evaluation of the secondary containment systems for hazardous waste storage areas located at the referenced facility, I certify that:

The secondary containments have been evaluated pursuant to Module III, Condition K(1) of the facility's hazardous waste storage permit.

Engineering evaluations on the secondary containment systems were conducted under my supervision.

The secondary containment systems appear to have been designed and constructed in accordance with sound engineering practices.

The secondary containment systems are generally considered to meet or exceed applicable requirements and are suitable for continued use. Items that are to be considered, or may require, further assessment and/or corrective action are listed in the report contained herein.

Signature and Seal of Registered Professional Engineer:

Introduction

Arcadis US, Inc. was retained by Univar Solutions to evaluate the secondary containments for 6 separately designated hazardous waste storage areas at the Nexeo Solutions facility, 3 Broad Street, Binghamton, Broome County, New York. Additionally, the secondary containment evaluation services included the assessment of an area in Building 4, which is not currently an established hazardous waste storage area but is under consideration for conversion to such use. The secondary containment evaluation services were provided in accordance with our proposal (Arcadis US, Inc. Ref No. 10538525), dated April 7, 2022, and authorized by Chris Schmitt, representing Univar Solutions.

Site Description

The project site is located at 3 Broad Street, Binghamton, Broome County, New York. A Site Location Map, depicting an aerial overlay and general location of the project site, is included in **Figure 1**. As a hazardous waste management facility, the subject facility is assigned United States Environmental Protection Agency (USEPA) identification number NYD049253719 and maintains a hazardous waste management permit, as required by 6 NYCRR Part 373.

The evaluation included assessing secondary containment systems for 6 separately designated hazardous waste storage areas, and 1 additional area that is under consideration for use as a hazardous waste storage area. The hazardous waste storage areas are identified as Bays A, B, C, D, and E in Building 1, and Bay G in Building 2. The proposed hazardous waste storage area is in Building 4. **Table 1** provides a description of the storage areas, based on information provided to Arcadis US, Inc. by representatives of Univar Solutions.

Evaluation Criteria and Methodology

The secondary containment evaluation was performed pursuant to Module III, Condition K(1) of the facility's hazardous waste management permit. The indoor secondary containment area permit specifies an independent triennial assessment to "*identify any deficiencies in each containment area including, but not limited to, cracks, gaps, or other defects that would inhibit the ability of the containment system to contain leaks or spills of containerized liquids, in accordance with the requirements of 6 NYCRR 373-2.9(f)(1).*" 6 NYCRR 373-2.9(f)(1) states the following requirements for design and operation of a container storage area containment system.

> *A base must underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.*
>
> *The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills, or precipitation unless the containers are elevated or otherwise protected from contact with accumulated liquids.*
>
> *The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.*

> *Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in item (iii) to contain any run-on which might enter the system.*
>
> *Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.*

The secondary containment evaluation was conducted on April 26, 2022, and included a visual inspection and system integrity assessment (reference Section 4), an evaluation of system permeability (reference Section 5), and a system compatibility evaluation (reference Section 6). Although volumetric assessment was not included as part of the evaluation, containment system volume criteria are also discussed herein (reference Section 7). A summary of the findings for the assessment is described in each of the referenced sections of this report, and additional summary for each secondary containment (including findings that pertain to the specified criteria in the facility's permit and 6 NYCRR 373-2.9(f)(1)) is presented in **Appendix A**.

Visual Inspection and System Integrity Assessment

Visual observation of the secondary containment systems was performed to determine compliance with permit requirements and applicable regulations specified in 6 NYCRR 3732.9(f)(1). Features of the secondary containments that were observed and evaluated included construction materials and general conditions of these materials, existing storage conditions and stored materials within the containments, base slopes, and drainage characteristics. Apparent system integrity was assessed relative to the existing observed conditions and information available.

Information provided by representatives of Univar Solutions indicates that Stonhard Stonclad® GS was applied to the surfaces of the secondary containment systems in 2018. Stonclad® GS is a four-component, troweled, epoxy coating system. Additionally, Stonhard Stonchem® 608 was applied as a topcoat for the secondary containment systems. Product specifications for Stonclad® GS and Stonchem® 608 are included in **Appendix B**. The cracks and gaps at the surface of the Bay G containment have been sealed using Sikaflex® 2c NS Arctic, a polyurethane based, elastomeric sealant. Product specifications for this material are also included in **Appendix B**.

Based on available information and observations at the time of inspection, the secondary containment systems appear to be structurally sound and in a satisfactory condition for the intended function. The information provided in **Appendix A** includes a summary of conditions observed relative to the assessment, and a general summary of notable items is outlined in the following.

The epoxy coating system applied to the surfaces of the secondary containment systems in Bays A, B, C, D, E, G, and in Building 4 appear to be in good condition and sufficient for containment of leaks or spills.

Minor chipping of the epoxy coated concrete was observed, primarily along perimeter berms for Bays B, C, and D.

Shelving units are located in Bay E and Building 4, and have posts affixed to the containment floors. Observations indicate that the locations around the posts may be prone to deterioration of the epoxy surface coating.

The roof in Bay G has some minor holes from what appears to be from deteriorated roof fasteners. Bay G also includes an overhead door not fully sealed to the exterior, with booms placed along the bottom.

A roof leak was observed in the vicinity of Bay D, with water pooling outside the secondary containment.

Damage was observed to the existing concrete masonry units (CMU) in wall sections of Building 1 in the vicinity of Bays A and B.

Items observed and noted during the visual assessment do not represent conditions requiring immediate correction/action to maintain performance of the containment systems to contain leaks or spills of containerized liquids. These items should be reviewed and considered during continued facility maintenance and management of operations in the areas of the secondary containment systems.

System Permeability and Compatibility

The secondary containment systems located at the subject facility are comprised of epoxy-coated concrete materials. Concrete is generally satisfactory relative to permeability requirements for a secondary containment system, although leakage could occur through cracks, gaps, joints, and penetrations. Application of the epoxy coating system referenced in **Appendix A** to secondary containment surface components has provided a means to seal the concrete surfaces. Prior to the epoxy coating installation Univar Solutions assessed the compatibility with the chemicals stored to confirm compatibility at that time. During the May 2022 secondary containment evaluation, an itemized assessment of the specific materials that are, or may be, stored in the secondary containment areas was not conducted, however, chemical compatibility was noted to be assessed as part of the facility's routine operations.

Containment System Volume

Per 6 NYCRR 373-2.9(f)(1)(iii), a containment system must have sufficient capacity to contain 10 percent of the volume of containers within the containment area or the volume of the largest container, whichever is greater. As quantities of stored hazardous wastes within the secondary containment systems are variable, a volumetric evaluation was not included in the scope of the assessment. It is our understanding that the subject facility maintains a Waste Analysis Plan and other on-site documentation to define and list the storage capacities of each of the secondary containment systems and these documents are used to manage the quantities of materials stored in each containment area to ensure regulatory compliance with regards to the quantities of materials being stored vs. Containment volume capacity. Storage capacities should be reviewed and updated in the event that there are any modifications to the secondary containment systems or container storage practices that would affect the available containment volumes.

Note, Building 4 has historically not been permitted as a hazardous waste containment area, however the area does contain the same floor coating/controls that exist in the other waste containment areas. The details below outline the proposed specifications for future permitting of secondary containment within Building 4.

Storage Building 4 Containment Capacity:

The proposed drum storage area in Building 4 has capacity to contain up to 48 pallets each holding up to four, 55-gallon drums stacked a maximum of two pallets high.

The building owner is requesting the Building 4 containment area be permitted for a storage volume of 10,230 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 1,023 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

10,230 gallons X 0.10 = 1,023 gallons

Available Capacity:

(58.83 ft X 57.66 ft X 0.437 ft) X 7.48 gal/ft^3 = 11,088 gallons

Volume Displacement of Ramp:

((3 ft X 15 ft X 0.437ft) X 0.5) X 7.48 gal/ft^3 = 74 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet X 48 pallets X 7.48 gal/ft^3 = 958 gallons

Net Capacity Available:

11,088 gallons - 74 gallons - 958 gallons= 10,056 gallons

There are 10,056 gallons of secondary containment available which exceeds the required minimum containment capacity of 1,023 gallons.

Conclusions and Recommendations

Information presented in **Appendix A** and Sections 4 through 7 summarizes results of the secondary containment evaluation that was performed by representatives of Arcadis US, Inc. on April 26, 2022. Based on the observations noted in Section 4 above and information available, components of the secondary containment systems evaluated at the facility are considered to be satisfactory for the intended function. Items noted during the evaluation that do not necessitate immediate attention but should be reviewed and considered with respect to continued facility operations and maintenance, are described below.

The epoxy coating system is partially applied for Bay G, with elastomeric sealant being temporarily used for sealing of cracks and gaps. Information provided by facility representatives indicates that completion of the epoxy coating system for Bay G is pending warmer temperatures, as required for appropriate application of the material. The interim conditions appear to be sufficient as a temporary control, until the epoxy coating system installation can be completed later this year.

Minor chipping of the epoxy coated concrete was observed along berm areas, and appears to be resultant to damage from equipment or loading/unloading the hazardous waste containers. Measures should be implemented to limit the potential for damage to the epoxy-coated concrete surfaces.

Shelving units are located in Bay E and Building 4, and have posts affixed to the containment floors. Observations indicate that the locations around the posts may be prone to deterioration of the epoxy surface coating. The post locations should be periodically observed by facility representatives to determine if conditions worsen or if any cracks or gaps develop at these locations that would require sealing.

The roof in Bay G has some minor holes that appear to be where fasteners may have been previously located. Bay G also includes an overhead door not fully sealed to the exterior, with booms placed along the bottom. While Bay G is listed for storage of ignitable waste and does not include water reactives, the area should be monitored by facility representatives to determine if there is a concern for accumulation of precipitation into the secondary containment system that would require removal.

A roof leak was observed in the vicinity of Bay D, with water being deposited at a location outside the secondary containment. The secondary containment systems do not appear to be currently affected by the roof leak; however, it is suggested that this item be mitigated to reduce the potential for further damage or deterioration of the roof system above the secondary containment systems.

Wall sections in Building 1, in the vicinity of Bays A and B, exhibited evidence of damage to the existing concrete masonry units (CMU). The extent of damage does not currently appear to be indicative of imminent structural failure or significant deterioration. Similar to the item describing damage to the epoxy-coated concrete surfaces, measures should be implemented to limit the potential for damage to the walls and other structural systems for the buildings with hazardous waste storage areas.

The findings described herein are representative of conditions observed and identified at the time of our site visit. If substantial changes or alterations occur for any of the referenced secondary containment areas, prior to the next scheduled 3-year evaluation, it may be necessary to conduct additional assessment and verification of the suitability for the secondary containment systems to function as intended

Table

Table 1
Description of Storage Areas

Storage Area Identification	Location	Listed Approximate Size (square feet)	Listed Storage Capacity (gallons)	Waste Description	Secondary Containment Construction Material/Coating
Bay A	Building 1	230	1,925	Water Reactives, Oxidizers, and Organic and Inorganic Peroxides	Concrete with Stonclad® GS and Stonchem® 608 epoxy mortar system surface application
Bay B	Building 1	750	9,075	Ignitable Wastes	Concrete with Stonclad® GS and Stonchem® 608 epoxy mortar system surface application
Bay C	Building 1	190	1,595	Ignitable Wastes	Concrete with Stonclad® GS and Stonchem® 608 epoxy mortar system surface application
Bay D	Building 1	1,370	8,745	Corrosive Wastes	Concrete with Stonclad® GS and Stonchem® 608 epoxy mortar system surface application
Bay E	Building 1	1,370	11,330	Non-Ignitable and Non-Corrosive Wastes	Concrete with Stonclad® GS and Stonchem® 608 epoxy mortar system surface application
Bay G	Building 2	2,822	10,230	Ignitable Wastes	Concrete with Stonclad® GS and Stonchem® 608 epoxy mortar system surface application (epoxy application pending completion)
Building 4	Building 4	3,392	10,056	Area Not Currently Used for Waste Storage	Concrete with Stonclad® GS and Stonchem® 608 epoxy mortar system surface application

Figure

C:\Users\murugesg5893\ARCADIS\Environmental CAD Team - BIM360 - OneDrive Sync Location\AUS-UNIVAR-BINGHAMTON-BINGHAMTON-New York\2022\01-In Progress\01-DWG\GEN-F01-SITE LOCATION MAP.dwg LAYOUT: 1 SAVED: 6/2/2022 5:48 PM ACADVER: 24.1S (LMS TECH) PAGESETUP: ----
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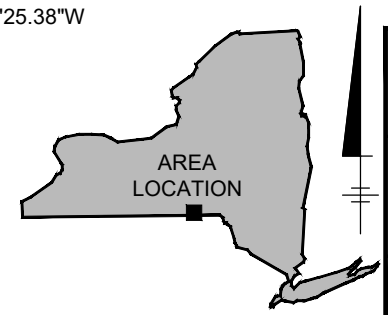


NEXEO SOLUTIONS FACILITY
3 BROAD STREET
BINGHAMTON, NEW YORK

SITE LOCATION MAP

ARCADIS

FIGURE
1

Appendix A

Description of Secondary Containment

Description of Secondary Containment

Storage Area Identification	**General Location at Facility**
Bay A	Building 1
Secondary Containment Construction Material	**Waste Description**
Concrete with Stonclad® GS Epoxy Mortar System and Stonchem® 601 Topcoat	Water Reactives, Oxidizers, and Organic and Inorganic Peroxides
Listed Storage Capacity (gallon)	**Listed Approximate Size (square feet)**
1,925	230

General Criteria

Regulatory Requirement	**Reference Regulation**	**Evaluation Results**
A base must underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.	6 NYCRR 373- 2.9(f)(1)(i)	Concrete with epoxy coating secondary containment system exists inside building. System appears sufficient to contain leaks or spills. Portion of CMU wall damaged on southwest side.
The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.	6 NYCRR 373-2.9(f)(1)(ii)	The containment area is enclosed within a building and containers were generally observed to be elevated on pallets. Note- recommend that all filled containers be placed on pallets.
The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.	6 NYCRR 373-2.9(f)(1)(iii)	As the quantity of stored hazardous wastes is variable, a volumetric assessment was not included in the scope of the assessment. It is our understanding the subject facility maintains a Waste Analysis Plan and other on-site documentation to define and list the storage capacity.
Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 6 NYCRR 373-2.9(f)(1)(iii) to contain any run-on which might enter the system.	6 NYCRR 373-2.9(f)(1)(iv)	The secondary containment system is enclosed within a building. Run-on is prevented via a concrete curb on the north and east sides, a concrete access curb on the west side, and a wall (with epoxy coating at bottom) on the south side.
Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.	6 NYCRR 373-2.9(f)(1)(v)	Accumulated liquids were not present within the secondary containment system at the time of the assessment. It is our understanding that the subject facility provides removal and cleanup of spilled or leaked material in an expeditious manner.

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 1

Description: Spill containment pallet within a secondary concrete containment system.

Location: Building 1 Bay A

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 2

Description: View of epoxy coated concrete flooring.

Location: Building 1 Bay A

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 3

Description: View of access curb of secondary containment system.

Location: Building 1 Bay A

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 4

Description:Edge measurements.

Location: Building 1 Bay A

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 5

Description: Edge measurements.

Location: Building 1 Bay A

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Description of Secondary Containment

Storage Area Identification	**General Location at Facility**
Bay B	Building 1
Secondary Containment Construction Material	**Waste Description**
Concrete with Stonclad® GS Epoxy Mortar System and Stonchem® 601 Topcoat	Ignitable Wastes
Listed Storage Capacity (gallon)	**Listed Approximate Size (square feet)**
9,075	750

General Criteria

Regulatory Requirement	Reference Regulation	Evaluation Results
A base must underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.	6 NYCRR 373- 2.9(f)(1)(i)	Concrete with epoxy coating secondary containment system exists inside building. System appears sufficient to contain leaks or spills. Minor chipping of the epoxy coated concrete was observed, primarily along the perimeter berms. Portion of CMU wall on north side damaged, at location of former steel plate.
The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.	6 NYCRR 373-2.9(f)(1)(ii)	The containment area is enclosed within a building and containers were generally observed to be elevated on pallets.
The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.	6 NYCRR 373-2.9(f)(1)(iii)	As the quantity of stored hazardous wastes is variable, a volumetric assessment was not included in the scope of the assessment. It is our understanding the subject facility maintains a Waste Analysis Plan and other on-site documentation to define and list the storage capacity.
Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 6 NYCRR 373-2.9(f)(1)(iii) to contain any run-on which might enter the system.	6 NYCRR 373-2.9(f)(1)(iv)	The secondary containment system is enclosed within a building. Run-on is prevented via a concrete curb on the north and east sides, a concrete access curb on the west side, and a wall (with epoxy coating at bottom) on the south side.
Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.	6 NYCRR 373-2.9(f)(1)(v)	Accumulated liquids were not present within the secondary containment system at the time of the assessment. It is our understanding that the subject facility provides removal and cleanup of spilled or leaked material in an expeditious manner.

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 1

Description: Spill stain inside secondary containment area.

Location: Building 1 Bay B

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 2

Description: View of damaged CMU wall.

Location: Building 1 Bay B

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 3

Description: View of worn epoxy coated concrete floor.

Location: Building 1 Bay B

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph: 4

Description: Minor chipping on the concrete curb of the secondary containment system.

Location: Building 1 Bay B

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 5

Description: Minor chipping on the concrete curb of the secondary containment system

Location: Building 1 Bay B

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 6

Description: Minor chipping on the concrete curb of the secondary containment system

Location: Building 1 Bay B

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 7

Description: View of the secondary containment area.

Location: Building 1 Bay B

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Description of Secondary Containment

Storage Area Identification	**General Location at Facility**
Bay C	Building 1
Secondary Containment Construction Material	**Waste Description**
Concrete with Stonclad® GS Epoxy Mortar System and Stonchem® 601 Topcoat	Ignitable Wastes
Listed Storage Capacity (gallon)	**Listed Approximate Size (square feet)**
1,595	190

General Criteria

Regulatory Requirement	**Reference Regulation**	**Evaluation Results**
A base must underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.	6 NYCRR 373-2.9(f)(1)(i)	Concrete with epoxy coating secondary containment system exists inside building. System appears sufficient to contain leaks or spills. Minor chipping of the epoxy coated concrete was observed, primarily along the curb on the east side.
The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.	6 NYCRR 373-2.9(f)(1)(ii)	The containment area is enclosed within a building and containers were generally observed to be elevated on pallets.
The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.	6 NYCRR 373-2.9(f)(1)(iii)	As the quantity of stored hazardous wastes is variable, a volumetric assessment was not included in the scope of the assessment. It is our understanding the subject facility maintains a Waste Analysis Plan and other on-site documentation to define and list the storage capacity.
Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 6 NYCRR 373-2.9(f)(1)(iii) to contain any run-on which might enter the system.	6 NYCRR 373-2.9(f)(1)(iv)	The secondary containment system is enclosed within a building. Run-on is prevented via a concrete curb on the north and east sides, a concrete access curb on the west side, and a wall (with epoxy coating at bottom) on the south side.
Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.	6 NYCRR 373-2.9(f)(1)(v)	Accumulated liquids were not present within the secondary containment system at the time of the assessment. It is our understanding that the subject facility provides removal and cleanup of spilled or leaked material in an expeditious manner.

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 1

Description:

Location: Building 1 Bay C

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph: 2

Description: View of secondary containment area.

Location: Building 1 Bay C

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 3

Description: Minor chipping on concrete curb.

Location: Building 1 Bay C

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 4

Description: Minor chipping on concrete curb.

Location: Building 1 Bay C

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 5

Description: Minor chipping on concrete curb.

Location: Building 1 Bay C

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 6

Description: Roof system above secondary containment area.

Location: Building 1 Bay C

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Description of Secondary Containment

Storage Area Identification	**General Location at Facility**
Bay D	Building 1
Secondary Containment Construction Material	**Waste Description**
Concrete with Stonclad® GS Epoxy Mortar System and Stonchem® 601 Topcoat	Corrosive Wastes
Listed Storage Capacity (gallon)	**Listed Approximate Size (square feet)**
4862	1,370

General Criteria

Regulatory Requirement	Reference Regulation	Evaluation Results
A base must underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.	6 NYCRR 373-2.9(f)(1)(i)	Concrete with epoxy coating secondary containment system exists inside building. System appears sufficient to contain leaks or spills. Minor chipping of the epoxy coated concrete was observed, primarily along the perimeter curbs.
The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.	6 NYCRR 373-2.9(f)(1)(ii)	The containment area is enclosed within a building and containers were generally observed to be elevated on pallets.
The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.	6 NYCRR 373-2.9(f)(1)(iii)	As the quantity of stored hazardous wastes is variable, a volumetric assessment was not included in the scope of the assessment. It is our understanding the subject facility maintains a Waste Analysis Plan and other on-site documentation to define and list the storage capacity.
Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 6 NYCRR 373-2.9(f)(1)(iii) to contain any run-on which might enter the system.	6 NYCRR 373-2.9(f)(1)(iv)	The secondary containment system is enclosed within a building. Run-on is prevented via a concrete curb on the north and east sides, a concrete access curb on the west side, and a wall (with epoxy coating at bottom) on the south side.
Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.	6 NYCRR 373-2.9(f)(1)(v)	Accumulated liquids were not present within the secondary containment system at the time of the assessment. It is our understanding that the subject facility provides removal and cleanup of spilled or leaked material in an expeditious manner.

Photograph Log

Univar Solution
Univar Secondary Containment Assessment
10538525

Photograph: 1

Description: Staining on floor inside secondary containment area.

Location: Building 1 Bay D

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph: 2

Description: Damage to CMU wall

Location: Building 1 Bay D

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solution
Univar Secondary Containment Assessment
10538525

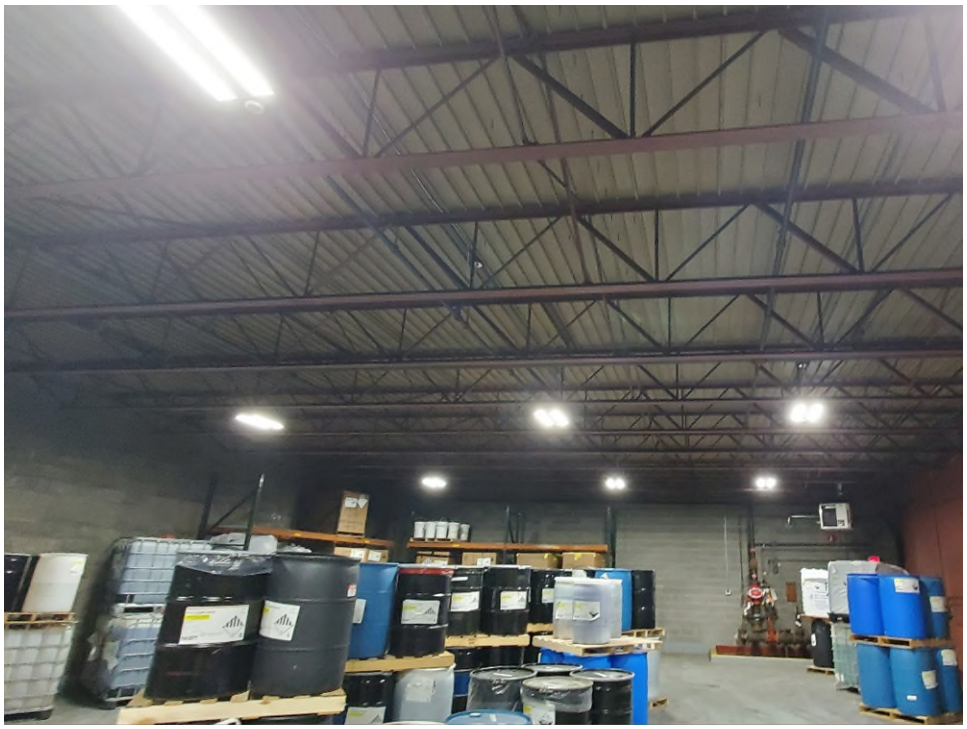
Photograph: 3

Description: View of chipping on concrete curb.

Location: Building 1 Bay D

Photograph taken by:
Daniel Zuck

Date: 4/26/2022



Photograph: 4

Description: Roof system above secondary containment area.

Location: Building 1 Bay D

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solution
Univar Secondary Containment Assessment
10538525

Photograph: 5

Description: Damage to epoxy coated concrete flooring.

Location: Building 1 Bay D

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 6

Description: View of secondary containment area.

Location: Building 1 Bay D

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Description of Secondary Containment

Storage Area Identification	**General Location at Facility**
Bay E	Building 1
Secondary Containment Construction Material	**Waste Description**
Concrete with Stonclad® GS Epoxy Mortar System and Stonchem® 601 Topcoat	Non-Ignitable and Non-Corrosive Wastes
Listed Storage Capacity (gallon)	**Listed Approximate Size (square feet)**
11,330	1,370

General Criteria

Regulatory Requirement	Reference Regulation	Evaluation Results
A base must underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.	6 NYCRR 373-2.9(f)(1)(i)	Concrete with epoxy coating secondary containment system exists inside building. System appears sufficient to contain leaks or spills. Posts for shelving units affixed to floor appear prone to deterioration of the epoxy surface coating.
The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.	6 NYCRR 373-2.9(f)(1)(ii)	The containment area is enclosed within a building and containers were generally observed to be elevated on pallets.
The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.	6 NYCRR 373-2.9(f)(1)(iii)	As the quantity of stored hazardous wastes is variable, a volumetric assessment was not included in the scope of the assessment. It is our understanding the subject facility maintains a Waste Analysis Plan and other on-site documentation to define and list the storage capacity.
Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 6 NYCRR 373-2.9(f)(1)(iii) to contain any run-on which might enter the system.	6 NYCRR 373-2.9(f)(1)(iv)	The secondary containment system is enclosed within a building. Run-on is prevented via a concrete curb on the north and east sides, a concrete access curb on the west side, and a wall (with epoxy coating at bottom) on the south side.
Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.	6 NYCRR 373-2.9(f)(1)(v)	Accumulated liquids were not present within the secondary containment system at the time of the assessment. It is our understanding that the subject facility provides removal and cleanup of spilled or leaked material in an expeditious manner.

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 1

Description: View of secondary containment area.

Location: Building 1 Bay E

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 2

Description: Stained epoxy coated concrete flooring.

Location: Building 1 Bay E

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 3

Description: Deterioration of epoxy surface around post for shelving unit affixed to floor.

Location: Building 1 Bay E

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Description of Secondary Containment

Storage Area Identification	**General Location at Facility**
Bay G	Building 2
Secondary Containment Construction Material	**Waste Description**
Concrete with Stonclad® GS Epoxy Mortar System and Stonchem® 601 Topcoat	Ignitable Wastes
Listed Storage Capacity (gallon)	**Listed Approximate Size (square feet)**
10,230	2,822

General Criteria

Regulatory Requirement	Reference Regulation	Evaluation Results
A base must underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.	6 NYCRR 373- 2.9(f)(1)(i)	Concrete with finished epoxy coating secondary containment system exists inside building. Minor holes in roof at former fastener locations, and overhead door not fully sealed to exterior (booms along bottom). .
The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.	6 NYCRR 373-2.9(f)(1)(ii)	The containment area is enclosed within a building and containers were generally observed to be elevated on pallets.
The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.	6 NYCRR 373-2.9(f)(1)(iii)	As the quantity of stored hazardous wastes is variable, a volumetric assessment was not included in the scope of the assessment. It is our understanding the subject facility maintains a Waste Analysis Plan and other on-site documentation to define and list the storage capacity.
Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 6 NYCRR 373-2.9(f)(1)(iii) to contain any run-on which might enter the system.	6 NYCRR 373-2.9(f)(1)(iv)	The secondary containment system is enclosed within a building. Run-on is prevented via a concrete curb on the north and east sides, a concrete access curb on the west side, and a wall (with epoxy coating at bottom) on the south side.
Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.	6 NYCRR 373-2.9(f)(1)(v)	Accumulated liquids were not present within the secondary containment system at the time of the assessment. It is our understanding that the subject facility provides removal and cleanup of spilled or leaked material in an expeditious manner.

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 1

Description: View of chipping on concrete curb.

Location: Building 2 Bay G

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 2

Description: View of chipping on concrete curb.

Location: Building 2 Bay G

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 3

Description: Cracks in concrete are sealed using temporary elastomeric sealant.

Location: Building 2 Bay G

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 4

Description: Cracks in concrete are sealed using temporary elastomeric sealant.

Location: Building 2 Bay G

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 5

Description: Cracks in concrete are sealed using temporary elastomeric sealant.

Location: Building 2 Bay G

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph: 6

Description: Cracks in concrete are sealed using temporary elastomeric sealant.

Location: Building 2 Bay G

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

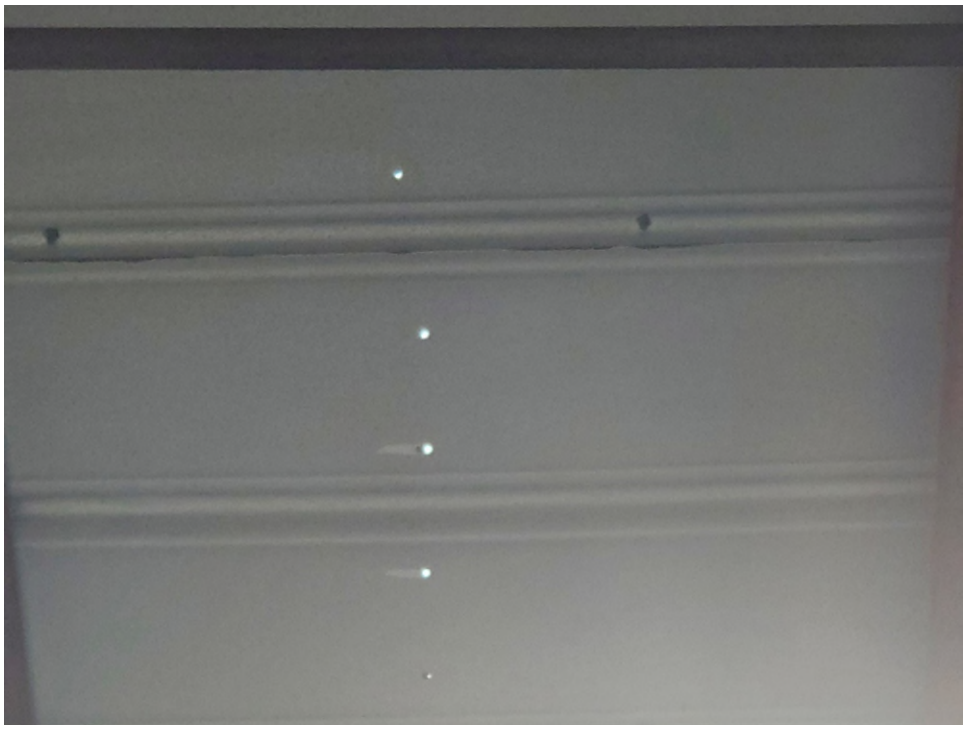
Photograph: 7

Description: View of damaged CMU walls

Location: Building 2 Bay G

Photograph taken by: Daniel Zuck

Date: 4/26/2022



Photograph: 8

Description: Roof has minor holes at former fastener locations above secondary containment area.

Location: Building 2 Bay G

Photograph taken by: Daniel Zuck

Date: 4/26/2022

Description of Secondary Containment

Storage Area Identification	**General Location at Facility**
Building 4	Building 4
Secondary Containment Construction Material	**Waste Description**
Concrete with Stonclad® GS Epoxy Mortar System and Stonchem® 601 Topcoat	Area Not Currently Used for Waste Storage
Listed Storage Capacity (gallon)	**Listed Approximate Size (square feet)**
10,056	3,392

General Criteria

Regulatory Requirement	**Reference Regulation**	**Evaluation Results**
A base must underlie the containers, which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.	6 NYCRR 373-2.9(f)(1)(i)	Concrete with epoxy coating secondary containment system exists inside building. System appears sufficient to contain leaks or spills. Posts for shelving units affixed to floor appear prone to deterioration of the epoxy surface coating.
The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquid resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.	6 NYCRR 373-2.9(f)(1)(ii)	The containment area is enclosed within a building and containers were generally observed to be elevated on pallets.
The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.	6 NYCRR 373-2.9(f)(1)(iii)	As the quantity of stored hazardous wastes is variable, a volumetric assessment was not included in the scope of the assessment. It is our understanding the subject facility maintains a Waste Analysis Plan and other on-site documentation to define and list the storage capacity.
Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in 6 NYCRR 373-2.9(f)(1)(iii) to contain any run-on which might enter the system.	6 NYCRR 373-2.9(f)(1)(iv)	The secondary containment system is enclosed within a building. Run-on is prevented via a concrete curb on the north and east sides, a concrete access curb on the west side, and a wall (with epoxy coating at bottom) on the south side.
Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.	6 NYCRR 373-2.9(f)(1)(v)	Accumulated liquids were not present within the secondary containment system at the time of the assessment. It is our understanding that the subject facility provides removal and cleanup of spilled or leaked material in an expeditious manner.

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 1

Description: View of proposed hazardous waste area in Building 4.

Location: Building 4

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph: 2

Description: View of proposed hazardous waste area in Building 4.

Location: Building 4

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 3

Description: View of loading dock bay door.

Location: Building 4

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph: 4

Description: View of minor chipping in concrete curb.

Location: Building 4

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 5

Description: Damage to wall.

Location: Building 4

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph: 6

Description: Cracking concrete around shelving post affixed to floor.

Location: Building 4

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Photograph Log

Univar Solutions
Univar Secondary Containment Assessment
10538525

Photograph: 7

Description: Staining on concrete flooring next to shelving post affixed to the floor.

Location: Building 4

Photograph taken by:
Daniel Zuck

Date: 4/26/2022

Appendix B

Product Data Sheets

STONHARD

STONCLAD® GS

PRODUCT DATA

PRODUCT DESCRIPTION

Stonclad GS is a four-component, troweled, epoxy mortar system. The system consists of an epoxy resin, amine curing agent, pigments and selected, graded aggregates. Stonclad GS can be applied at thickness ranging from 1/8 in./3 mm to 1/4 in./6 mm depending on application requirements. Stonclad GS cures to an extremely hard, impact-resistant mortar which exhibits excellent abrasion, wear and chemical resistance and can be used anywhere an epoxy mortar is required.

SYSTEM OPTIONS

Coatings

To improve cleanability and increase the resistance to damage from abrasion and chemical spillages, the following coatings are recommended: Stonkote GS4 and Stonkote HT4. Other coating options are available, please contact your local Stonhard representative or Technical Service for specific requirements.

Waterproofing

Where the total system must be waterproof, use of Stonhard's Stonproof ME7 membrane system is required, with strict adherence to application instructions.

Cove Base

To provide for an integral seal at the joint between the floor and the wall, cove bases in varying heights are available, contact your local Stonhard representative or Technical Service for details.

PACKAGING

Stonclad GS is packaged in units for easy handling. Each unit consists of:

2 cartons, each containing:
- 6 foil bags of Amine
- 6 poly bags of Resin

12 individual bags of Part C-1 Aggregate

1 carton containing:
- 12 bags of Part C-2 Pigment

COVERAGE

Each unit of Stonclad GS will cover approximately 200 sq. ft./18.6 sq. m of surface at a nominal 1/4 in./6 mm thickness.

STORAGE CONDITIONS

Store all components of Stonclad GS between 60 to 85°F/16 to 30°C in a dry area. Avoid excessive heat and do not freeze. The shelf life is 3 years in the original, unopened container.

PHYSICAL CHARACTERISTICS

Compressive Strength (ASTM C-579)	10,000 psi after 7 days
Tensile Strength (ASTM C-307)	1,750 psi
Flexural Strength (ASTM C-580)	4,000 psi
Flexural Modulus of Elasticity (ASTM C-580)	2.0×10^6 psi
Hardness (ASTM D-2240, Shore D)	85 to 90
Impact Resistance (ASTM D-2794)	>160 in./lbs.
Abrasion Resistance (ASTM D-4060, CS-17)	0.1 gm *
Flammability (ASTM E-648)	Class 1
Thermal Coefficient of Linear Expansion (ASTM C-531)	1.4×10^{-5} in./in.°F
Water Absorption (ASTM C-413)	0.2%
VOC Content (ASTM D-2369, Method E)	4 g/l
Cure Rate (at 75°F/25°C)	24 hours for normal operations

* Test samples finished with one coat of high solids epoxy coating

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual floor system, including binder and filler, were used as test specimens. All sample preparation and testing is conducted in a laboratory environment, values obtained on field applied materials may vary and certain test methods can only be conducted on lab made test coupons.

COLOR

Stonclad GS is available in 12 standard colors. Refer to the Stonclad Color Sheet. Color variations will exist if the Stonclad GS surface is not coated with a pigmented coating. Please contact your local Stonhard representative or Technical Service with any questions.

SUBSTRATE

Stonclad GS, with the appropriate primer, is suitable for application over concrete, wood, brick, quarry tile, metal or Stonhard Stonset grouts. For questions regarding other possible substrates or an appropriate primer, contact your local Stonhard representative or Technical Service.

SUBSTRATE PREPARATION

Proper preparation is critical to ensure an adequate bond and system performance. The substrate must be dry and properly prepared utilizing mechanical methods. Questions regarding substrate preparation should be directed to your local Stonhard representative or Technical Service.

PRIMING

The use of Standard Primer is necessary for all applications of Stonclad GS over all substrates except Stonset grouts. Over Stonset grouts, Stonhard's Stonset Primer is used. Please see the appropriate primer Product Data sheet for details.

MIXING

- Proper mixing is critical for the product to exhibit the proper application properties, cure properties and ultimate physical properties.
- Mechanical mixing using a JB Blender (or equivalent 5 gal. pail mixer) or a larger mortar mixer (e.g., a Baugh 3 Batch Mixer) is required.
- See Stonclad GS Directions for further details.

APPLYING

- DO NOT attempt to install material if the temperature of Stonclad GS components and substrate are not within 60 to 85˚F/16 to 30˚C. The cure time and application properties of the material are severely affected at temperatures outside of this range.
- Material must be applied immediately after mixing.
- A suitable screed applicator is used to distribute the mixed Stonclad GS onto the floor.
- Steel finishing trowels are used to compact and smooth the surface of the material to the required thickness.
- Detailed application instructions can be found in the Stonclad GS Directions.

NOTES

- Procedures for cleaning of the flooring system during operations can be found in the Stonhard Floor Maintenance Guide.
- Specific information regarding chemical resistance is available in the Stonclad Chemical Resistance Guide. If a coating is utilized to seal the Stonclad GS surface, please ensure that you consult the Product Data sheet for the coating for details regarding chemical resistance of the coating utilized.
- Safety Data Sheets for Stonclad GS are available online at www.stonhard.com under Products or upon request.
- A staff of technical service engineers is available to assist with installation or to answer questions related to Stonhard products.
- Requests for literature can be made through local sales representatives and offices, or corporate offices located worldwide.
- The appearance of all floor, wall and lining systems will change over time due to normal wear, abrasion, traffic and cleaning. Generally, high gloss coatings are subject to a reduction in gloss, while matte finish coatings can increase in gloss level under normal operating conditions.
- Surface texture of resinous flooring surfaces can change over time as a result of wear and surface contaminants. Surfaces should be cleaned regularly and deep cleaned periodically to ensure no contaminant buildup occurs. Surfaces should be periodically inspected to ensure they are performing as expected and may require traction-enhancing maintenance to ensure they continue to meet expectations for the particular area and conditions of use.

Rev. 11/16

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STONHARD

STONCHEM® 601

PRODUCT DATA

PRODUCT DESCRIPTION

Stonchem 601 is a highly cross-linked, novolac epoxy lining system applied at a nominal thickness of 25 mil/ 625 microns. Two coats of the mineral composite-filled topcoat is ideal for the coating of bases, piers, walls and concrete structures. A one coat, 10 to 12 mil/250 to 300 microns, application will renew the surface of an aged lining system. The Stonchem 601 system has excellent resistance to concentrated sulfuric acids, chlorinated solvents and caustics.

USES, APPLICATIONS

- Secondary containment areas
- Concrete pads and pedestals
- Splash/spill areas

PRODUCT ADVANTAGES

- Excellent chemical resistance to most mineral acids, solvents and all caustics
- Mineral composite-filled for increased impermeability
- Factory proportioned units for easy application

PHYSICAL CHARACTERISTICS

Tensile Strength . . . . . 5,600 psi
(ASTM D-638)
Hardness . . . . . 85 to 90
(ASTM D-2240, Shore D)
Abrasion Resistance . . . . . .0.07 gm max. weight loss
(ASTM D-4060, CS-17)
Color . . . . . Gray
Cure Rate . . . . . .4 to 6 hours tack-free
(@70F°/21°C) 24 hours chemical service
VOC . . . . . Stonchem 600 Topcoat 68 g/l
(ASTM D-2369, Method E)

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual system, including binder and filler, were used as test specimens.

CHEMICAL RESISTANCE

Stonchem 601 is formulated to resist a variety of chemical solutions. Refer to the Stonchem 600 Series Chemical Resistance Guide which lists reagent concentration and temperature recommendations for each product.

PACKAGING

Stonchem 601 is packaged in units for easy handling. Each unit consists of:

Topcoat

2 cartons of Stonchem 600 Series Topcoat
A carton contains:
4 foil bags of Amine
4 poly bags of Resin

COVERAGE

Each unit of Stonchem 601 will cover approximately 180 sq. ft./16.72 sq. m at a thickness of 25 mil/625 microns.

Note: Coverage rates shown are theoretical. Actual coverage rates may vary. Make necessary allowances for the condition of the surface to be coated, working conditions, waste, spillage, experience level and skill of the installers, etc.

STORAGE CONDITIONS

Store all components between 50 to 75°F/10 to 24°C in a dry area. Keep out of direct sunlight. When stored in the unopened containers at the proper temperatures, the shelf life is 3 years.

SUBSTRATE

Stonchem 601, with appropriate primer, is suitable for application over concrete and the following uncoated newly applied Stonhard mortars and grouts: GS, HT, UR, UT, TG6, TG8, CR5 and PM5. For questions regarding other possible substrates or an appropriate primer, contact your local Stonhard representative or Technical Service.

SUBSTRATE PREPARATION

Proper preparation is critical to ensure an adequate bond and system performance. The substrate must be dry and properly prepared utilizing mechanical methods. Questions regarding substrate preparation should be directed to you local Stonhard representative or Technical Service.

APPLICATION GUIDELINES

For optimal working conditions, substrate temperature must be between 60 to 80˚F/15 to 27˚C. Cold areas must be heated until the slab temperature is above 55˚F/13˚C to ensure the material achieves a proper cure. A cold substrate will make the material stiff and difficult to apply. Warm areas or areas in direct sunlight must be shaded or arrangements made to work during evenings or at night. A warm substrate (60 to 80˚F/15 to 27˚C) will aid in the material's workability; however, a hot substrate (80 to 100˚F/27 to 37˚C) or a substrate directly in the sun will shorten the material's working time and can cause other phenomenon such as pinholing and bubbling. Substrate temperature must be greater than 5˚F/3˚C above dew point during application and curing period.

Application and curing times are dependent upon ambient and surface conditions. Consult Stonhard's Technical Service Department if conditions are not within recommended guidelines.

APPLYING

Priming

Vacuum the surface before priming and make sure the substrate is dry. The use of Stonchem Epoxy Primer is necessary in all applications of Stonchem 601. This ensures maximum product performance. (See the Stonchem Epoxy Primer product data sheet for details.)

> **Note:** Stonchem Epoxy Primer must be tack-free prior to application of Stonchem 601.

First Coat

After allowing the primer to cure, mix the amine and resin in a 5 gallon mixing bucket using a heavy-duty, slow speed drill (400 to 600 rpm) with a Jiffy Mixer for one minute. Pour the material onto the floor and spread out with a 15 mil notched squeegee. Backroll the area with a medium nap roller to remove squeegee lines using long roll strokes to decrease the visibility of roller lines. For vertical surfaces, pour a bead of material along the base of the wall. Using a medium nap roller, roll the material onto the wall. The wet film thickness of the coating is 10 to 12 mil/250 to 300 microns. Check the thickness with a wet film gauge.

Second Coat

Apply the same as the first coat.

CURING

The surface of Stonchem 601 will be tack-free in 4 to 6 hours at 70˚F/21˚C. The coated area may be put back into service in 24 hours at 70˚F/21˚C. Ultimate physical characteristics will be achieved in 7 days.

PRECAUTIONS

- Avoid contact with Stonchem 600 amine and resin, as they may cause skin, respiratory and eye irritation.
- Acetone is recommended for clean up of Stonchem 600 amine and resin material spills. Use this material only in strict accordance with the manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
- The use of NIOSH/MSHA approved respirators using an organic vapor/acid gas cartridge is recommended.
- The selection of proper protective clothing and equipment will significantly reduce the risk of injury. Body covering apparel, safety goggles and impermeable nitrile gloves are highly recommended.
- In case of contact, flush the area with copious amounts of water for 15 minutes and seek medical attention. Wash skin with soap and water.
- If material is ingested, immediately contact a physician. **DO NOT INDUCE VOMITING**.
- Use only with adequate ventilation.

NOTES

- Safety Data Sheets for Stonchem 601 are available online at www.stonhard.com under Products or upon request.
- Specific information regarding chemical resistance is available in the Stonchem 600 Series Chemical Resistance Guide.
- A staff of technical service engineers is available to assist with product application or to answer questions related to Stonhard products.
- Requests for technical literature or service can be made through local sales representatives and offices, or corporate offices located worldwide.
- The appearance of all floor, wall and lining systems will change over time due to normal wear, abrasion, traffic and cleaning. Generally, high-gloss coatings are subject to a reduction in gloss, while matte-finish coatings can increase in gloss level under normal operating conditions.
- Surface texture of resinous flooring surfaces can change over time as a result of wear and surface contaminants. Surfaces should be cleaned regularly and deep cleaned periodically to ensure no contaminant buildup occurs. Surfaces should be periodically inspected to ensure they are performing as expected and may require traction-enhancing maintenance to ensure they continue to meet expectations for the particular area and conditions of use.

Rev. 5/17

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STONHARD

600 SERIES CHEMICAL RESISTANCE GUIDE

INTRODUCTION

The Stonchem 600 Series Chemical Resistance Guide is designed to aid in the proper selection of material for every job application. Exposure to over 250 chemicals are rated for specific temperature ranges. Due to the number of variables involved in each application, it is recommended that a Technical Service Engineer be contacted for specific recommendations.

This Chemical Resistance Guide is intended only as a guideline and does not constitute an implied warranty for the use of our materials under the environments indicated.

INSTRUCTIONS FOR USE

The chemical resistance data contained in this guide has been summarized from in-depth lab analysis and actual job performance. The rating system shown below is designed to consider most application variables. Choose the closest chart temperature - 100˚F/38˚C or 150˚F/66˚C. The rating gives the maximum service for a chemical at that temperature.

CHEMICAL RESISTANCE KEY

IM = Immersion
SS = Splash/Spill
NR = Not Recommended

Notes:

1. For immersion conditions over 150˚F/66˚C, contact Stonhard's Technical Service Department. For solutions with no concentrations given, the rating is for all possible concentrations.
2. * Indicates chemicals where silica-free systems are required. Consult Stonhard's Technical Service Department.

CHEMICAL NAME	TEMPERATURES 100˚F/38˚C	TEMPERATURES 150˚F/66˚C
Acetaldehyde	SS	NR
Acetic Acid - 10%	SS	NR
Acetic Acid - 25%	SS	NR
Acetic Acid - 50%	NR	NR
Acetic Acid, Glacial	NR	NR
Acetic Anhydride	SS	NR
Acetone	SS	SS
Acetonitrile	SS	NR
Acrylonitrile	NR	NR
Adipic Acid - 23%	SS	NR
Alum	IM	SS
Aluminum Chloride	IM	IM
Aluminum Fluoride *	IM	IM
Aluminum Hydroxide	IM	IM
Aluminum Nitrate - 10%	IM	IM
Aluminum Sulfate	IM	IM
Ammonia	IM	SS
Ammonium Chloride	IM	IM
Ammonium Fluoride *	IM	IM
Ammonium Hydroxide - 10%	IM	IM
Ammonium Hydroxide - 29%	IM	IM
Ammonium Nitrate	IM	IM
Ammonium Oxalate	IM	SS
Ammonium Persulfate	IM	SS
Ammonium Phosphate	IM	IM
Ammonium Sulfate	IM	IM
Ammonium Sulfide - Sat.	IM	IM
Ammonium Sulfite - Sat.	IM	IM
Amyl Acetate	IM	SS
Amyl Alcohol	IM	IM
Aniline	IM	SS

CHEMICAL NAME	TEMPERATURES 100˚F/38˚C	TEMPERATURES 150˚F/66˚C
Aniline Hydrochloride	IM	IM
Barium Acetate	IM	IM
Barium Bromide	IM	IM
Barium Carbonate	IM	IM
Barium Chloride	IM	IM
Barium Hydroxide	IM	IM
Barium Sulfate	IM	IM
Barium Sulfide	IM	SS
Benzene	IM	SS
Benzene Sulfonic Acid - 50%	IM	SS
Benzoic Acid - Sat.	IM	SS
Benzyl Chloride	IM	SS
Black Liquor	IM	IM
Blood Sugar	IM	SS
Borax - 100%	IM	IM
Boric Acid	IM	SS
Brine	IM	IM
Bromine, Liquid	NR	NR
Butanol	IM	IM
Butyl Acetate	IM	SS
Butyl Acrylate	IM	SS
Butyl Cellosolve Solvent	IM	SS
Butyric Acid	SS	NR
Calcium Bisulfite	IM	IM
Calcium Bromide	IM	IM
Calcium Carbonate	IM	IM
Calcium Chlorate	IM	IM
Calcium Chloride	IM	IM
Calcium Hydroxide	IM	IM
Calcium Hypochlorite	IM	SS
Calcium Nitrate	IM	IM
Calcium Sulfate	IM	SS
Calcium Sulfite	IM	SS
Carbon Disulfide	SS	NR
Carbon Tetrachloride	IM	SS
Castor Oil	IM	SS
Chlorine Water - Sat.	IM	SS
Chloroacetic Acid - 25%	SS	NR
Chloroacetic Acid - 50%	NR	NR
Chlorobenzene	IM	SS
Chloroform	SS	NR
Chromic Acid - 10%	SS	NR
Chromic Acid - 40%	SS	NR
Citric Acid	IM	IM
Copper Acetate	IM	IM
Copper Chloride	IM	IM
Copper Cyanide	IM	IM
Copper Fluoride *	IM	IM
Copper Nitrate	IM	IM
Copper Sulfate	IM	IM
Corn Oil	IM	SS
Corn Starch - Slurry	IM	IM
Corn Sugar	IM	IM
Cottonseed Oil	IM	SS
Creosote	IM	IM
Cutting Oil	IM	SS
Cyclohexane	IM	SS
Detergents, Organic	IM	SS
Detergents, Sulfonated	IM	SS
Dibutylpthalate	IM	IM
Dichlorobenzene	IM	SS
Dichloroethane	SS	NR
Diesel Fuel	IM	IM
Diethylbenzene	IM	SS
Diethylene Glycol	IM	IM
Diethyl Ether	IM	SS
Dimethyl Formamide	NR	NR

CHEMICAL NAME	TEMPERATURES 100˚F/38˚C	TEMPERATURES 150˚F/66˚C
Dimethyl Sulfoxide	NR	NR
Epichlorohydrin	IM	IM
Ethanol	IM	IM
Ethanolamine	SS	NR
Ethyl Acetate	SS	NR
Ethyl Acrylate	SS	NR
Ethylbenzene	IM	SS
Ethyl Chloride	SS	NR
Ethlyene Dichloride	SS	NR
Ethylene Glycol	IM	IM
Fatty Acids	SS	NR
Ferric Chloride	IM	IM
Ferrous Nitrate	IM	IM
Ferric Sulfate	IM	IM
Ferrous Chloride	IM	IM
Ferrous Sulfate	IM	IM
Fluoboric Acid *	SS	NR
Fluosilicic Acid - 10% *	SS	NR
Formaldehyde	IM	SS
Formic Acid - 10%	SS	NR
Formic Acid - 50%	NR	NR
Fuel Oil	IM	IM
Furfural Alcohol	SS	NR
Gasoline	IM	IM
Glycerine	IM	SS
Green Liquor	IM	IM
Heptane-n	IM	IM
Hexane	IM	IM
Hydraulic Fluid	IM	IM
Hydrobromic Acid - 18%	SS	NR
Hydrobromic Acid - 48%	SS	NR
Hydrobromic Acid - 62%	SS	NR
Hydrochloric Acid - 10%	IM	SS
Hydrochloric Acid - 37%	IM	SS
Hydrofluoric Acid - 10% *	IM	SS
Hydrofluoric Acid - 40% *	SS	NR
Hydrogen Peroxide - 10%	SS	NR
Hydrogen Peroxide - 30%	SS	NR
Hydrogen Peroxide - 50%	NR	NR
Hydrogen Sulfide - 5%	IM	SS
Hydrogen Sulfide - 100%	IM	SS
Hypochlorous Acid - 20%	NR	NR
Isopropyl Alcohol	IM	IM
Isopropyl Amine	SS	NR
Jet Fuel (JP-4)	IM	IM
Kerosene	IM	IM
Lactic Acid - 10%	IM	SS
Lactic Acid - 50%	SS	NR
Lactic Acid - 85%	NR	NR
LASSO Herbicide	IM	SS
Lead Acetate	IM	IM
Linseed Oil	IM	SS
Lithium Bromide - Sat.	IM	IM
Lithium Chloride - Sat.	IM	IM
Lithium Hydroxide - Sat.	IM	IM
Magnesium Bisulfite	IM	IM
Magnesium Carbonate	IM	IM
Magnesium Chloride	IM	IM
Magnesium Hydroxide	IM	IM
Magnesium Nitrate	IM	IM
Magnesium Sulfate	IM	IM
Maleic Acid	SS	NR
Manganese Chloride	IM	IM
Manganese Sulfate	IM	IM
Mercuric Chloride	IM	IM
Mercurous Chloride	IM	IM
Mercury	IM	IM

CHEMICAL NAME	TEMPERATURES 100˚F/38˚C	TEMPERATURES 150˚F/66˚C
Methyl Benzoate	IM	SS
Methyl Alcohol	SS	NR
Methyl Ethyl Ketone	SS	NR
Methyl Isobutyl Ketone	IM	NR
Methylene Chloride	SS	NR
Milk	IM	IM
Mineral Oils	IM	IM
Mineral Spirits	IM	SS
Motor Oil	IM	IM
M-Pyrol	NR	NR
Naphtha	IM	IM
Nickel Chloride	IM	IM
Nickel Nitrate	IM	IM
Nickel Sulfate	IM	IM
Nitric Acid - 10%	IM	SS
Nitric Acid - 40%	SS	NR
Nitric Acid - 70%	NR	NR
Nitrobenzene	SS	NR
Oil, Sour Crude	IM	SS
Oil, Sweet Crude	IM	SS
Oleic Acid	IM	SS
Oleum	SS	NR
Oxalic Acid	SS	NR
Perchloric Acid	SS	NR
Perchloroethylene	IM	SS
Phenol - 5%	SS	NR
Phenol - 88%	NR	NR
Phosphoric Acid - 50%	IM	SS
Phosphoric Acid - 85%	IM	SS
Phosphorous Acid - 70%	IM	SS
Phosphorous Trichloride	IM	SS
Picric Acid - 10%	IM	SS
Plating Solutions, Cyanide	IM	SS
Plating Solutions, Fluoborate *	IM	SS
Potassium Bicarbonate - 10%	IM	IM
Potassium Bicarbonate - 50%	IM	IM
Potassium Bromide	IM	IM
Potassium Carbonate	IM	IM
Potassium Chloride	IM	IM
Potassium Hydroxide	IM	IM
Potassium Iodide	IM	IM
Potassium Nitrate	IM	IM
Potassium Permanganate	IM	SS
Potassium Persulfate	IM	SS
Potassium Sulfate	IM	IM
Propionic Acid	SS	NR
Propylene Glycol	IM	IM
Pyridine	NR	NR
Salt Brine - 30%	IM	IM
Silver Nitrate	IM	SS
Skydrol	IM	SS
Sodium Acetate	IM	IM
Sodium Benzoate	IM	IM
Sodium Bicarbonate - 10%	IM	IM
Sodium Bicarbonate - Sat.	IM	IM
Sodium Bisulfate	IM	IM
Sodium Bisulfite - Sat.	IM	IM
Sodium Carbonate	IM	IM
Sodium Chlorate - 50%	IM	SS
Sodium Chloride - Sat.	IM	IM
Sodium Chlorite - 10%	SS	NR
Sodium Chlorite - 50%	SS	NR
Sodium Chromate - 50%	IM	SS
Sodium Cyanide	IM	IM
Sodium Dichromate	IM	SS
Sodium Ferrocyanide	IM	IM
Sodium Fluoride *	IM	IM

CHEMICAL NAME	TEMPERATURES 100˚F/38˚C	TEMPERATURES 150˚F/66˚C
Sodium Hydroxide	IM	IM
Sodium Hypochlorite - 5.25%	IM	SS
Sodium Hypochlorite - 15%	NR	NR
Sodium Nitrate	IM	IM
Sodium Phosphate - 10%	IM	IM
Sodium Silicate	IM	IM
Sodium Sulfate	IM	IM
Sodium Sulfide	IM	IM
Sodium Sulfite	IM	IM
Sodium Tartrate	IM	IM
Sodium Tetraborate - Sat.	IM	IM
Sodium Thiosulfate	IM	IM
Stannic Chloride	IM	IM
Stannous Chloride	IM	IM
Stearic Acid	IM	SS
Styrene	IM	SS
Sugar Cane	IM	IM
Sugar/Sucrose	IM	IM
Sulfite/Sulfate Liquors	IM	IM
Sulfuric Acid - 25%	IM	SS
Sulfuric Acid - 75%	IM	SS
Sulfuric Acid - 98%	IM	SS
Sulfurous Acid - 10%	IM	SS
Tall Oil	IM	IM
Tannic Acid	IM	SS
Tartaric Acid	IM	SS
Tetrachloroethane	IM	SS
Thionyl Chloride	NR	NR
Toluene	IM	SS
Toluene Sulfonic Acid	IM	SS
Transformer Oils	IM	IM
Trichloroacetic Acid - 50%	NR	NR
Trichloroethane	IM	SS
Trichloroethylene	IM	SS
Tricresyl Phosphate	IM	SS
Trisodium Phosphate	IM	IM
Turpentine	IM	SS
Tween Surfactant	IM	SS
Urea - 50%	IM	IM
Vegetable Oils	IM	IM
Vinegar	IM	SS
Water, Deionized	IM	IM
Water, Distilled	IM	IM
Water, Sea	IM	IM
Water, Steam Condensate	IM	IM
White Liquor	IM	IM
Xylene	IM	SS
Zinc Chloride - 70%	IM	IM
Zinc Chlorate	IM	SS
Zinc Nitrate	IM	IM
Zinc Sulfate	IM	IM
Zinc Sulfite	IM	IM

Note: This data is based on laboratory tests performed under carefully controlled conditions. (All solutions are at ambient temperatures.) No warranty can be expressed nor implied regarding the accuracy of this information, as it will apply to actual plant operation or job site use. Plant operations and job site uses vary widely, and the individual results obtained are affected by the specific conditions encountered, which are beyond our control.

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BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-2c NS Arctic

TWO-COMPONENT, NON-SAG, POLYURETHANE ELASTOMERIC SEALANT FOR ARCTIC WEATHER APPLICATIONS

PRODUCT DESCRIPTION

Sikaflex®-2c NS Arctic is a 2-component, premium-grade, polyurethane based, elastomeric sealant formulated for cold weather applications. It is principally a chemical cure in a non-sag consistency. Available in a wide range of architectural colors with convenient color paks. Meets ASTM C-920, Type M, Grade NS, Class 25, use T, NT, M, G, A, O and Federal Specification TT-S-00227E, Type II, Class A. Meets CAN/CGSB 19.24 - M90.

USES

- Intended for use in all properly designed working joints with a minimum depth of 1/4 inch.
- Ideal for vertical and horizontal applications.
- Adheres to most substrates commonly found in construction.
- Mixable and placeable at temperatures as low as 15 F
- Submerged environments, such as canal and reservoir joints.
- An effective sealant for use in Exterior Insulation Finish Systems (EIFS).

CHARACTERISTICS / ADVANTAGES

- Easy to mix, gun, tool down to 15F
- At extreme cold temperatures the material will continue to be workable, gunable and toolable
- Chemical cure allows the sealant to placed in greater depths for non-moving joints/cracks
- High elasticity with a tough, durable, flexible consistency
- Exceptional adhesion to most substrates without priming
- Exceptional cut and tear resistance
- Available in 35 standard architectural colors
- Color uniformity via Color-pak system
- Capable of +/- 50 % Movement
- Non-sag even in wide joints
- Paintable with water, oil, and rubber based paints

PRODUCT INFORMATION

Packaging	1.5 gal. unit.
Color	Available in a wide range of architectural colors are available. Special colors available on request.
Shelf Life	One year in origonal, unopened containers.
Storage Conditions	Store dry at 15 °F (-9.4 °C) to 85 °F (35 °C). Condition material to 15 °F (-9.4 °C) to 50 °F (10 °C) before using.

TECHNICAL INFORMATION

Shore A Hardness	**73 °F (23 °C)** 14	
Tensile Strength	**73 °F (23 °C)** 73 psi	(ASTM D-412)
Elongation at Maximum Tensile Stress	**73 °F (23 °C)** 600 %	(ASTM C-1135)
Elongation at Break	**73 °F (23 °C)** 540 % **Extension at Break** **73 °F (23 °C)** 640 % *100 % E-Modulus* **73 °F (23 °C)** 15 %	(ASTM D-412) (ASTM C-1135) (-)
Tensile Adhesion Strength	**73 °F (23 °C)** 73 psi	(ASTM C-1135)
Tear Strength	**73 °F (23 °C)** 23 lbf/in *Tear Strain at Max. Stress* **73 °F (23 °C)** 570 psi	(ASTM D-624) (-)
Chemical Resistance	Good resistance to water, diluted acids, diluted alka lines, and residential sewage. Consult Technical Service at 1-800-933-SIKA for specific data.	
Resistance to Weathering	Excellent	
Service Temperature	-40º to 170º F (-40º- 75º C)	

APPLICATION INFORMATION

Coverage

1 gallon: Yield in Linear feet

Width/Depth	**1/4''**	**3/8''**	**1/2''**
1/4''	307.9		
3/8''	205.3	136.8	
1/2''	153.9	102.6	77.0
3/4''	102.6	68.4	51.3
1''			38.5
1.25''			30.8
1.5''			25.7

Ambient Air Temperature	15 °F (-9.4 °C) to 50 °F (10 °C)	
Substrate Temperature	15 °F (-9.4 °C) to 50 °F (10 °C)	
Pot Life	**15 °F (-10 °C)** 14 hours	**73 °F (23 °C)** 3 hours
Cure Time	**15 °F (-10 °C)** 6 to 8 days	**73 °F (23 °C)** 3 to 4 days

Tack Free Time	15 °F (-10 °C)	73 °F (23 °C)
	3 hours	6 hours

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All joint-wall surfaces must be clean, dry, sound, and frost-free. Use mechanical means (i.e. sandblasting, surface grinding) to remove oils, grease, curing compound residues, and any other foreign matter from joint walls that might prevent bond. Bond breaker tape or backer rod must be used in the bottom of the joint to prevent three sided adhesion.
Priming: Priming is typically not necessary. Most substrates only require a primer if sealant will be subject to water immersion after cure. Test questionable substrates to determine if priming is needed. Consult Sikaflex Primer Technical Data Sheet for additional information or Technical Service at 800-933-7452 or www.sikaconstruction.com (USA)
Note: Most Exterior Insulation Finish Systems (EIFS) manufacturers recommend the use of a primer. When EIFS manufacturer specifies a primer Sikaflex 429 primer is recommended.

MIXING

Pour entire contents of Component 'B' into pail of component 'A'. Add entire contents of Color Pak. Mix with a slow speed drill (400–600 rpm) and Sikaflex sealant mixing paddle (or other sealant paddle with rounded edges). Mix for 3–5 minutes to achieve a uniform color and consistency. Scrape down the side periodically to ensure all of the material is mixed. Avoid over-mixing and entrapment of air when mixing. Color pak must be used with tint base.

APPLICATION METHOD / TOOLS

Recommended application temperatures: 15–50°F. Move preconditioned units to work areas just prior to application. To place, load directly into bulk gun or use a follower plate loading system. Place nozzle of gun into bottom of joint and fill entire joint. Keeping the nozzle deep in the sealant, continue with a steady flow of sealant to ensure full contact with joint walls and remove air entrapment. Also, avoid overlapping sealant since this also entraps air. Tool sealant to ensure full contact with joint walls and remove air entrapment. Joint dimension should allow for 1/4 inch minimum and 1/2 maximum thickness for sealant. Proper design 2:1 width to depth ratio.

LIMITATIONS

- The ultimate performance of Sikaflex®-2c NS Arctic depends on good joint design and proper application.
- Minimum depth in working joint is 1/4 in.
- Maximum expansion and contraction should not exceed 50 % of average joint width.
- So not use with Sikaflex 2c NS TG (Traffic Grade) Additive.
- Do not cure in the presence of curing silicones.
- Avoid contact with alcohol and other solvent cleaners during cure.
- Allow 7 day cure before subjecting sealant to total water immersion. Primer is required if sealant will be subjected to total water immersion.
- Avoid exposure to high levels of chlorine. (Maximum level is 5 ppm).
- Do not apply when moisture vapor transmission exists since this can cause bubbling within the sealant.
- Avoid over-mixing sealant.
- White color tends to yellow slightly when exposed to ultraviolet rays.
- Light colors can yellow if exposed to direct gas fired heating elements.
- When overcoating: an on-site test is recommended to determine actual compatibility.
- Rigid paints, coatings or primers will crack when placed over elastomeric sealants experiencing expansion or contraction
- Do not use in contact with bituminous/asphaltic materials.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **FOR PROFESSIONAL USE ONLY**

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at https://usa.sika.com/en/group/SikaCorp/termsandconditions.html or by calling 201-933-8300.

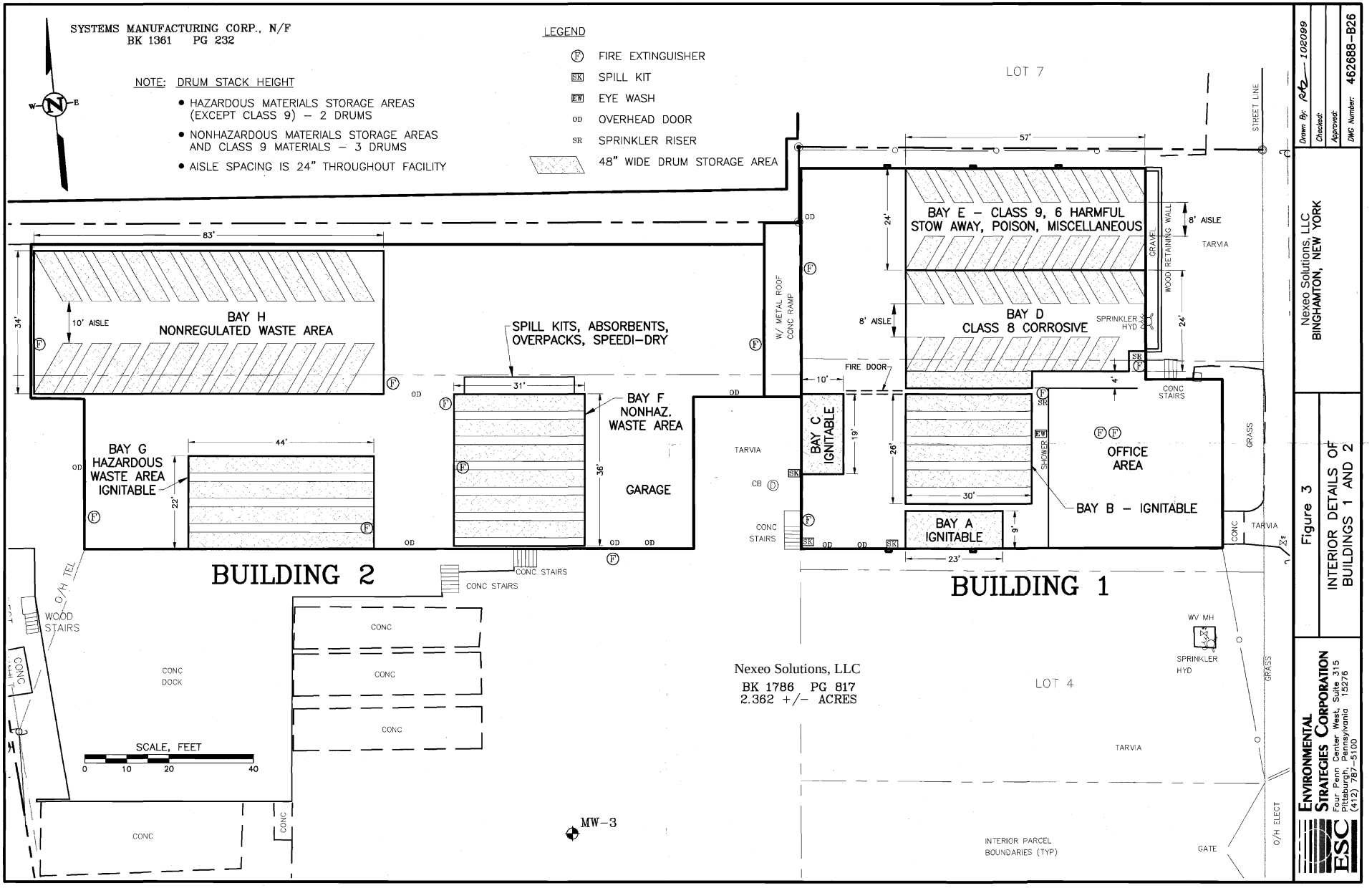
Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: 800-933-7452
Fax: 201-933-6225

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537

Sika Canada Inc.
601 Delmar Avenue
Pointe Claire
Quebec H9R 4A9
Phone: 514-697-2610
Fax: 514-694-2792

Arcadis U.S., Inc.
One Lincoln Center, 110 West Fayette Street, Suite 300
Syracuse
New York 13202
Phone: 315 446 9120
Fax: 315 449 0017
www.arcadis.com

Enclosure 5 – Attachment A-2



Nexeo Solutions, LLC
BINGHAMTON, NEW YORK

Figure 3

INTERIOR DETAILS OF BUILDINGS 1 AND 2

Drawn By: RAZ 102099
Checked:
Approved:
DWG Number: 462688-B26

ENVIRONMENTAL STRATEGIES CORPORATION
Four Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
(412) 787-5100

Rick Z – Z:\DWG\460\462688\B26.dwg :December 17, 1999 2:18 pm

ENCLOSURE 2

Schedule 1 of Module I

NYSDEC-revised Pages S1-3 and S1-4

Document Incorporated by Reference:

1. Part A Application

C. COMPLIANCE SCHEDULE

The Permittee must complete the following activities within the scheduled timeframes indicated in the following table:

Item	Requirement	Compliance Date[1]
2022 Secondary Containment Assessment Report	Attached New York State professional engineer certification language as per Part 373-1.4(a)(5)(iv) to the 2022 assessment report, and resubmit to DEC	7/17/2023
Building 4 damaged floor	Repair all damaged concrete floor at shelving posts in Building 4. All repaired locations must be finished with epoxy coating. Final written certification using Part 373-1.4(a)(5)(iv) including pictures of repairs must be submitted for approval.	7/17/2023
Building 4 damaged wall	Repair damaged wall at the joint of CMU wall and floor in Building 4. Final written certification using Part 373-1.4(a)(5)(iv) including pictures of repairs must be submitted for approval.	7/17/2023
Building 4 floor plan	Provide floor plan drawing of Building 4 indicating proposed storage arrangement. Drawing must include aisle widths between pallets, and widths for any central aisles. Final written certification using Part 373-1.4(a)(5)(iv) including pictures of repairs must be submitted for approval.	7/31/2023

Footnotes:

1. The Permittee must comply with the reporting requirements of 6 NYCRR 373-1.6(d)(1)(iii) for each interim date and the final compliance date.

D. SCHEDULE OF DELIVERABLES

The Permittee must complete the activities indicated in the following table within the scheduled timeframes from the effective date of the Permit:

Item	Requirement	Compliance Date[1]
Fire Inspection	Local fire department must provide a statement attesting to Building 4 meeting NFPA specification, as well as Fire & Property Maintenance Code of New York State.	Within 30 days from the effective date of this Permit Modification
Fire Report	If local fire department will not attest, then an independent certified report that Building 4 meeting NFPA code and Fire & Property Maintenance Code of New York State must be submitted.	Up to 90 days from the effective date of this Permit Modification

Footnotes:

1. The Permittee must comply with the reporting requirements of 6 NYCRR 373-1.6(d)(1)(iii) for each interim date and the final compliance date.

E. ROUTINE REPORTING AND COMPLIANCE ACTIVITIES

The Permittee must perform the following compliance activities and submit the following routine reports to the Department by the indicated due date in accordance with the requirements of this Permit:

Item	Frequency	Due Date	Requirement
Secondary Containment	Triennially	30 Days after Inspection	3rd Party Inspection

ENCLOSURE 3

Attachment M – Major/Minor Modification Log

NYSDEC-revised Pages 1 to 10

ATTACHMENT M – MAJOR/MINOR MODIFICATION

The permit may be modified for causes as allowed under 6 NYCRR 373-1.7. General Permit Condition 4 in page 2 of this permit and 6 NYCRR 621.14. Modification shall be requested in writing as required by 6 NYCRR 621.13 and 621.14. Requests for modifications shall be submitted to the Regional Permit Administrator for approval and modification of the permit.

PERMIT MODIFICATION LOG

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Module II		88A to 88I	11/20/2006	11/20/2006	The General Groundwater Conditions that were included in the 15, 2000) not included in the current permit. These conditions were updated and now incorporated into the current permit as Appendix E to the Module
Attachment I Waste Analysis Plan	136	136, l36A, 1368, & l36C	5/1/07	5/1/2007	For managing 10-Day Transfer Wastes
Attachment M Permit Modification Log	328	328	1/4/2007	1/4/2007	Updated
All attachments	N/A	N/A	August 2011	August 2011	As part of the permit renewal and transfer of ownership and operations from Ashland to Nexeo, removed all references to Ashland and replaced with “Nexeo” or “facility”; changed abbreviation of WMPS to WPS; replaced examples of WPS, LDR, and driver’s checklist with Nexeo equivalent forms;

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
					removed references to RCRA Compliance Kit in Attachment III, updated corporate emergency contact telephone number.
Permit Special Conditions	Permit Page 4 and 5	Same	April 2023 (Revision 1)	5/26/2023	Corrected typos such as “Quality”, capitalization, and added wording for clarification; identified Bay E and Building 4 as corrosive storage; clarified that the facility does not accept DOT Division 1.1 through 1.6 explosive wastes (including DOT Type A, B, and C explosives); reorganized statement regarding Class 1A flammable liquids; added Class 1 organic peroxides to Special Condition 8.
Permit Special Conditions	Permit Page 4 and 5	Same	April 2023 (Revision 1)	5/26/2023 with DEC revision	updated waste separation, stacking, and aisle space procedures to reflect regulations;
Permit Special Conditions	Permit Page 4 and 5	Same	April 2023 (Revision 1)	NOT APPROVED	deleted the term “double overpack” because it is not correct terminology for DOT packaging; removed double overpacked lab pack conditions for organic peroxides and other temperature sensitive waste
Schedule 1 of Module I.A	S1-1 and S1-2	Same	April 2023 (Revision 1)	5/26/2023	Updated waste descriptions to reflect terminology used in regulations; added ignitable (D001) waste to Bay A, Bay D; added corrosive waste (D002) to Bay E and removed from Bay D; added additional

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
					toxicity characteristic and listed waste descriptions to Bay G to match Table C-1.1; added waste description and other information for Building 4 (same as Bay E); increased storage capacity to 53,130 gallons.
Schedule 1 of Module I.A	S1-3	SAME	5/25/2023 as modified by DEC	5/26/2023	Updated Section C. Compliance Schedule to reflect additional certification needed for damages repaired in Building 4; Obtain NYS P.E. certification on the 2022 Secondary Containment Assessment Report
Schedule 1 of Module I.A	Not Applicable	S1-4	5/25/2023 as modified by DEC	5/26/2023	Updated Section D Schedule of Deliverables to require either Fire Inspection certification of Building 4 from local fire department, or a Fire Report
All Attachments included in Modification	All	All	April 2023 (Revision 1)	5/26/2023	Updated revision date to Revision 1, April 2023; changed name from Nexeo to Univar, the permittee, or the Binghamton facility.
Part A and Attachment A-1, A-2, A-3 Attachment VI, Appendix B	Part A and Attachment A-1, A-2, A-3 Attachment VI, Appendix B	Part A and Appendix A-1, A-2, and A-3 Attachment VI, Appendix B	April 2023 (Revision 1)	NOT APPROVED, Part A updated pages were not included in the April 2023 Revision 1 submission	Revised site location, facility layout drawing, and photo log to reflect current features of the site including Building 4

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment–I - Waste Analysis Plan	Page 21	Same	April 2023 (Revision 1)	NOT APPROVED	Updated U160 waste code to remove “double overpacked” condition and indicated waste would be lab packed and stored in temperature-controlled area.
Attachment–I - Waste Analysis Plan	Page 24	Same	April 2023 (Revision 1)	5/26/2023	Deleted paragraph with repetitive information (information is already included in Table C-1.1).
Attachment–I - Waste Analysis Plan	Page 25-28	Same	5/25/2023 as modified by DEC	05/26/2023	Revised Table C-1.1 and following paragraphs to reflect changes to Schedule 1 of Module I.A.; updated wording for clarification
Attachment–I - Waste Analysis Plan	Page 31	Same	April 2023 (Revision 1)	5/26/2023	Replaced bays with concrete curbed areas
Attachment–I - Waste Analysis Plan	Page 34 (Section C.2)	Same	5/25/2023 as modified by DEC	5/26/2023	Updated aisle space with clarification for central aisle width, and add “concrete” to description of curb
Attachment–I - Waste Analysis Plan	Page 37 (Section C.2.e)	Same	5/25/2023 as modified by DEC	5/26/2023	Updated aisle space with clarification for central aisle wideth, and add “concrete” to description of curb; added description of self-reactive waste (including DOT Type A, B, and C) and replaced “stored” with “accepted”
Attachment–I - Waste Analysis Plan	Page 42	Same	April 2023 (Revision 1)	5/26/2023	Removed condition “l” because these are storage guidelines, not prohibited wastes, which are identified in other sections of the permit

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment IV – Procedures to Prevent Hazards	Page 1	Same	April 2023 (Revision 1)	5/26/2023	Added "Part A" to clarify location of Attachment A-2 (the appropriate attachment number, deleted Attachment 6, Appendix B); added Building 4
Attachment IV – Procedures to Prevent Hazards	Page 1	Same	April 2023 (Revision 1)	NOT APPROVED	Removed statement "The ignitable, reactive, poisons, toxics and corrosive hazardous waste storage areas are adjacent to the plant administrative office, which are in the same building."
Attachment V – Preparedness and Prevention	Page 1	Same	April 2023 (Revision 1)	5/26/2023	Changed "bays" to "permitted hazardous waste storage areas"
Attachment–V - Preparedness and Prevention	Page 2 (Section F.3.b)	Same	5/25/2023 as modified by DEC	5/26/2023	Updated aisle space with central aisle width maintained at least 5 feet; corrected typo "forklift"; updated to Attachment A-2
Attachment–V – Preparedness and Prevention	Page 3 (Section F.5.a)	Same	5/25/2023 as modified by DEC	5/26/2023	Updated aisle space with central aisle width maintained at least 5 feet, and added detail describing curb; corrected typos; corrected typo "forklift"
Attachment–V - Preparedness and Prevention	Page 4	Same	April 2023 (Revision 1)	5/26/2023	Added separation by curbs or other means, corrected typos/spelling; updated correct sequence Section title to F.5.c

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment–V - Preparedness and Prevention	Page 4	Same	April 2023 (Revision 1)	NOT APPROVED	Removed sentence "Lithium batteries will not be accepted for storage at the facility."
Attachment VII – Closure Plan	Page 2	Same	April 2023 (Revision 1)	5/26/2023	Updated storage capacity to account for Building 4
Attachment VII – Closure Plan	Page 3	Same	April 2023 (Revision 1)	5/26/2023	Updated description of storage areas to account for Building 4; identified Attachment A-2; updated wording for clarification
Attachment VII – Closure Plan	Page 4	Same	April 2023 (Revision 1)	NOT APPROVED **Note**: Closure Costs will be review during the renewal application	Updated amount of anticipated rinsate based on previous experience with closures at other locations; updated number of samples per bay from two to one, and one sample from Building 4, which is consistent with closure plans at other Univar locations
Attachment VII – Closure Plan, Section I.3	Page 5	Same	April 2023 (Revision 1)	NOT APPROVED **Note**: Closure Costs will be review during the renewal application	Revised closure cost estimate to include Building 4
Attachment VII – Closure Plan, Section I.4	Page 5	Same	April 2023 (Revision 1)	NOT APPROVED, **Note**: Financial Assurance instrument will be reviewed during renewal application	Revised financial assurance mechanism to reflect what is currently used (closure bond)

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment VIII – Management of Waste in Containers	Page 1-2	Same	April 2023 (Revision 1)	5/26/2023	Changed Appendix A to Attachment A-2 (throughout Attachment VII); changed wording for clarification (customer's); removed paragraph under Container Storage Management and replaced with reference to Table D-1 to avoid duplicative language found in other parts of the application
Attachment VIII – Management of Waste in Containers	Page 2	Same	April 2023 (Revision 1)	5/26/2023	Changed diking to curbing; added Building 4; additional updates for clarification purposes; changed Appendix A to Attachment A-2 (throughout Attachment VII); added Table D-1 under Section D.1.a
Attachment VIII – Management of Waste in Containers	Page 2	Same	April 2023 (Revision 1)	NOT APPROVED	Removed sentence "non hazardous wastes are not stored in the hazardous waste storage areas
Attachment VIII – Management of Waste in Containers, Table D-1	Page 3	Same	April 2023 (Revision 1)	5/26/2023	Revised Table D-1 and following paragraphs to reflect changes to Schedule 1 of Module I.A; clarified that reactive wastes are stored in Bay A
Attachment VIII – Management of Waste in Containers, Table D-1	Page 3	Same	April 2023 (Revision 1)	NOT APPROVED	Deleted sentence about organic peroxide and non cyanide and sulfide reactive wastes in double overpacked lab packs

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment VIII – Management of Waste in Containers	Page 4 – 6 (Section D.1.a)	Same	April 2023 (Revision 1)	5/26/2023	Added Building 4; updated paragraphs to reflect previous changes identified including aisle space; changed ramp height to at least 4 inches; deleted "in Bay A" in reference to raised pallets and removed additional detail regarding storage locations because this is identified in Table D-1; indicated technical specifications of the coating is identified in the independent secondary containment assessment required by Module III, Section K.1 of the Permit; specify Appendix B of Attachment VIII; corrected typo in thickness of curb; updated waste storage area descriptions to reflect current conditions; corrected spelling and added wording for clarification; updated stacking height; added "ELAP certified" to lab description
Attachment VIII – Management of Waste in Containers	Page 4 – 6 (Section D.1.a)	Same	5/25/2023 as modified by DEC	5/26/2023	Updated aisle space with specification for central aisle width
Attachment VIII – Management of Waste in Containers	Page 4 – 6 (Section D.1.a)	Same	April 2023 (Revision 1)	NOT APPROVED	Deleted square footage of Building 1 (dimensions provided in containment calculations);
Attachment VIII – Management of Waste in Containers	Page 4 – 6 (Section D.1.a)	Same	5/25/2023 as modified by DEC	5/26/2023	Changed specific name of floor coating to more general epoxy coating

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment VIII – Management of Waste in Containers	Not Applicable	Page 7 - 11 (Section D.1.a.3.c)	April 2023 (Revision 1)	5/26/2023	Changed Appendix to Attachment A-2
Attachment VIII – Management of Waste in Containers	Not Applicable	Page 11 - 12	April 2023 (Revision 1)	5/26/2023	Added secondary containment calculations for Building 4
Attachment VIII – Management of Waste in Containers	Page 12	Page 13	5/25/2023 as modified by DEC	5/26/2023	Updated paragraphs to reflect previous changes identified pertaining to waste storage
Attachment VIII – Management of Waste in Containers	Page 13-14	Page 13-14	April 2023 (Revision 1)	5/26/2023	Changed reference from Appendix D to Attachment A-2; corrected typos; added wording for clarification; deleted / added wording in Section D.3 to avoid repeating what is already included in Table C-1.1; updated sentence regarding incompatibility with spent corrosives, removing plating waste reference to keep it general
Attachment VIII – Management of Waste in Containers	Page 15	Page 15	5/26/2023 as modified by DEC	5/26/2023	Changed Appendix D to Attachment A-2; hyphenate staging area measurement; update inspection schedule citation to Table F-1 of Appendix C
Attachment IX – Facility Description & Supporting Documents	Page 1-2	Same	April 2023 (Revision 1)	5/26/2023	Changed Nexeo to Univar; updated storage capacity for Building 4
Attachment IX – Facility Description & Supporting Documents	3	Same	April 2023 (Revision 1)	5/26/2023	Added Building 4; corrected typo

The name of the specific document being modified (sections, and/or attachments)	Modified page numbers		Date of Revised pages	Effective Date of Permit Modification	The nature of the modifications
	Old	New			
Attachment M – Permit Modifications	Not Applicable	Page 1 - 10	5/25/2023 as modified by DEC	5/26/2023	Added new column for effective date of permit modifications
Table I-1 – Closure Cost Estimated	Page 1 – 2	Same	April 2023 (Revision 1)	NOT APPROVED **Note**: Closure cost estimate will be reviewed in detail during permit renewal process	Updated closure cost estimate to include Building 4; removed Line Item 3 because it is included in Line Item 2 – updated line item numbers; updated rinsate samples (see previous explanation); clarification that disposal costs are for solids and liquids; removed extra health and safety costs because it is included in supervision and certification cost; combined supervision and certification costs; deleted obsolete footnotes and added that costs are developed per recent costs obtained for Univar Kansas City
Attachment I-1 – Trust Agreement and Certificate of Liability Insurance	Page 1	Same	April 2023 (Revision 1)	NOT APPROVED	Changed to “Financial Guarantee – Closure Bond and Certificate of Liability Insurance” to reflect current closure cost mechanism (closure bond)

ENCLOSURE 4

Finalized Minor Mod Page Changes

4. The Permittee is responsible for verifying that the Quality Control/Assurance Program(QA/QC) followed by laboratories used by the Permittee to carry out analysis of the waste streams, conform to the QA/QC procedures approved in the permit and thus ensure the validity of the analytical data provided by the laboratories.

5. As required by ECL 03-0119, any laboratory (Permittee or contract) used by the Permittee to perform analysis pursuant to this Permit must be certified by the New York State Department of Health Environmental Laboratory Approval Program (ELAP) in the appropriate categories of analysis, if ELAP issues certifications in such categories. If the Permittee uses a contract laboratory to perform analysis required by this Permit, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis and quality assurance provisions of this Permit.

6. The Permittee will store organic peroxide and other temperature sensitive wastes only as overpacked lab packs and separated from incompatible wastes. Packages containing organic peroxide formulation will be individually marked with chemical name of the organic peroxide or with other information adequate for proper storage. Storage areas for temperature sensitive wastes will be maintained within the recommended temperature range for the materials stored. The storage of organic peroxides with concentrations above the limits specified in 49 CFR 173.225 is prohibited.

7. Incompatible wastes (acids and alkalis) stored in Bay E and Building 4 will be separated by concrete curbs and the minimum aisle space width of 2.5 feet, with a central aisle width of 8 feeet.

8. The Permittee is not authorized to accept the following wastes:
- Reactive wastes (D003) in bulk, except cyanide and sulfide wastes, (reactive wastes can be accepted as double overpacked lab packs*)
- Water reactive wastes (except as lab packs)
- Dioxin wastes and PCB's
- D003 wastes which have the property of 371.3(d)(1)(I), (vii) or (viii)
- DOT Division 1.1 through 1.6 explosive wastes (including DOT Type A, B, and C explosives)
- Class 1A flammable liquids in bulk (can only be accepted as lab packs with inner containers less than 1 (one) gallon)
- Poison gas cylinders (P-listed waste codes) and poison gas/mixtures meeting USDOT Division 2.3 hazard zone A
- Gas cylinders, except for aerosol cans and lectures bottles, which may be received in lab packs only
- Class 1 organic peroxides

Class 1A flammables liquids can only be accepted as lab packs with inner containers less than 1 (one) gallon.

Limitation on quantity of Oxidizers:
- 4000 lbs., double overpacked Class I Oxidizers
- 1000 lbs., double overpacked Class II Oxidizers
- 200 lbs., double overpacked Class III Oxidizers
- 10 lbs., double overpacked Class IV Oxidizers

* Example of Double Overpacked labpack: small containers of waste lab packed in a 30-gallon container as per DOT requirements and the 30 gallon container overpacked with absorbent in a 55 gallon drum.

9. 55 and 30 gallon hazardous and nonhazardous waste drums must not be stacked more than two tiers high. Consistent with the Fire and Property Maintenance Code of New York State (3404.3.5.2) and OSHA 29 CFR 1910.106 containers having less than 30 gallons in capacity which contain class I or II liquids shall not be stacked more than 3 feet or two containers high whichever is greater. Containers of Class I and II flammable liquids having a capacity of 30 gallons or greater shall not be stored more than one container high. All containers shall be stored in upright position.

PART 373 PERMIT

SCHEDULE 1 OF MODULE I
FACILITY-SPECIFIC CONDITIONS

DEC Facility Name: **Univar Solutions USA Inc.**
DER Facility No.: 7-0302-00068/00011
EPA RCRA ID No.: NYD049253719

Facility Address: 3 Broad Street
Binghamton, New York 13902
Broome County
Hereinafter referred to as "Facility" or "Site" or "Permittee"

A. PERMITTED ACTIVITIES

The following hazardous waste management units, activities and types and quantities of hazardous waste to be managed are authorized by this Permit:

Unit Type	Waste Description*	Container Specifications (USDOT)	Storage Volume (Gal)	Secondary Containment Volume (Gal)
Bay A (Temperature controlled)	Ignitable (D001), water reactive, reactive (D003) not containing cyanide and sulfide, organic or inorganic peroxides (except Class 1) and oxidizers	1A1, 1A2, 1H1	1,925	641
Bay B (Temperature controlled)	Ignitable (D001), F-, U- and P-listed hazardous wastes exhibiting ignitability and toxicity characteristic, reactive (D003) only for aqueous cyanide and sulfide	1A1, 1A2, 1H1	9,075	1,874
Bay C (Temperature Controlled)		1A1, 1A2, 1H1, 1H2, 6HA1, 6PA1	1,595	625
Bay D (Temperature Controlled)	Ignitable (D001), toxicity characteristic wastes	1A1, 1A2, 1H1, 1H2	8,745	3,832

Unit Type	Waste Description*	Container Specifications (USDOT)	Storage Volume (Gal)	Secondary Containment Volume (Gal)
Bay E (Temperature controlled)	Non-ignitable, corrosive (D002), F-, K-, U- and P-listed waste exhibiting toxicity characteristic	1A1, 1A2, 1H1, 1H2, 4G, 5H1, 5H2, 5H3, 1G	11,330	4,132
Bay G	Ignitable (D001), toxicity characteristic, F-, P, and U listed hazardous wastes exhibiting ignitability and toxicity characteristic	Same as Bays B and C	10,230	2,716
Building 4 (Temperature controlled)	Non-ignitable, corrosive (D002), toxicity characteristic, F-, K-, U- and P-listed waste with toxicity characteristic	1A1,1A2,1Hl 1H2, 4G, 5Hl, 5H2, 5H3, 1G	10,230	10,056
Total Storage Volume			53,130	23,876

* Waste codes are in Table C-1 and C-1.1 of Attachment I – Waste Analysis Plan

B. PERMIT DOCUMENTS

The following Modules, Attachments and documents incorporated by reference are considered part of this Permit:

Modules:

I General Conditions
Schedule 1 of Module I
II Corrective Action Requirements
III Use and Management of Containers

Attachments:

Attachment I – Waste Analysis Plan
Attachment II – Inspection Plan
Attachment III – Personnel Training Plan
Attachment IV – Security Plan
Attachment V – Preparedness & Prevention Plan
Attachment VI – Contingency Plan
Attachment VII – Closure Plan
Attachment VIII – Management of Waste in Containers
Attachment IX- Facility Description & Supporting Documents
Attachment X - Air Emission Standards
Attachment M - Major/Minor Permit Modifications

Waste Nos.	Characteristic, Chemical Name and/or Description
U159	Methyl Ethyl Ketone [I]
U160	Methyl Ethyl Ketone Peroxide [R] (will be stored in lab packed 1 gallon containers double over packed in steel drums and stored in a temperature-controlled storage area.)
U161	Methyl Isobutyl Ketone [I]
U162	Methyl Methacrylate (inhibited) [I]
U163	N-Methyl N'-nitro N-nitrosoguanidine
U164	Methylthiouracil
U165	Naphthalene
U166	1,4-Naphthoquinone
U167	1-Naphthylamine
U168	2-Naphthylamine
U169	Nitrobenzene
U170	p-Nitrophenol
U171	2-Nitropropane [I,T]
U172	N-Nitrosodi-n-butylamine
Ul73	N-Nitrosodiethanolamine
U174	N-Nitrosodiethylamine
U176	N-Nitroso-N-ethylurea
U177	N-Nitroso-N-methylurea
U178	N-Nitroso-N-methylurethane
Ul79	N-Nitrosopiperidine
U180	N-Nitrosopyrrolidine
U181	5-Nitro-o-toluidine
U182	Paraldehyde [I]
U183	Pentachlorobenzene
U184	Pentachloroethane
U185	Pentachloronitrobenzene
U186	1,3-Pentadiene [I]

Waste Nos.	Characteristic, Chemical Name and/or Description
U280	Barban
U328	o-Toluidine
U353	p-Toluidine
U359	2-Ethoxyethanol [I]
U364	Bendiocarb Phenol
U367	Carbofuran Phenol
U372	Carbendazim
U373	Prop ham
U387	Prosulfocarb
U389	Triallate
U394	A2213
U395	Diethylene Glycol, Dicarbamate
U404	Triethylamine
U409	Thiophanate-methyl
U410	Thiodicarb
U411	Propoxur

Footnotes: [I] Ignitable, [WR] Water Reactive, [R] Reactive, [C] Corrosive, [T] Toxic

Table C-1.1 shows where the various different types of waste are stored by waste description and waste code.

TABLE C-1.1
STORAGE LOCATIONS

Storage Area	Storage Capacity (Gallons)	Waste Description Lab packs, drummed liquids, solids & sludges	Hazardous Waste Codes
Building 1 – Bay A (Temperature controlled)	1,925	Ignitable (D001), water reactive, reactive (D003) not containing cyanide and sulfide, oxidizers, and organic or inorganic peroxides (except Class 1)	D001, D003 not containing cyanide and sulfide, P023, P028, P064, P069, P087, U096, U160, U223, U249
Building 1 - Bay B (Temperature controlled)	9,075	Ignitable (D001), F-, U- and P-listed hazardous wastes exhibiting ignitability and toxicity characteristic, reactive (D003) only for aqueous cyanide and sulfide	D001, D003 (only for aqueous cyanide and sulfide), D018, D028, D029, D035, D043, F003, F004, F005, P003, P005, P014, P016, P022, P064, P067, P068, P073, P092, Pl01, P102, U001, U002, U003, U008, U012, U019, U025, U031, U041- U043, U045, U053, U055-U057, U074, U076-U079, U083-U085, U092, U098, U099, U108, U110, U112, U113, U117, U118, U122, U124, U125, U140, U152- U154, U156, U159, U161, U162, U171,U182, U186, U191, U194, U196, U213, U220, U239, U359
Building 1 - Bay C (Temperature controlled)	1,595		
Building 1 - Bay D (Temperature controlled)	8,745	Ignitable (D001), toxicity characteristic wastes	D001, D004-D011, K062, K111, K124, K131, U123, U134

Storage Area	Storage Capacity (Gallons)	Waste Description Lab packs, drummed liquids, solids & sludges	Hazardous Waste Codes
Building 1 - Bay E (Temperature controlled)	11,330	Non-ignitable, corrosive (D002), F-, K-, U- and P-listed waste exhibiting toxicity characteristic	D002, F001, F002, F006, F007, F008, F009, F010, F011, F012, F019, F024, F025, F034, F035, F037, F038, D004-D017, D019-D027, D030-D034, D036-D042, K001-K011, K013-K026, K028-K043, K046, K048- K052, K060, K061, K064-K066, K071, K073, K083-K088, K090, K093, K095-K105, Kl12-Kll8,K123, K125, K126, K132, K136, ALL LISTED "P" CODES IN TABLE C-1 UNLESS IGNITABLE (see above) U004, U007, U009-U011, U014-U018, U021, U022, U024, U026-U030, U032, U034-U039, U044, U047-U052, U058-U064,U067-U073, U075, U080-U082, U086-U091, U093-U095, U097, U101- U107, U109, U111, U114, U116, U119-U121, U126-U132, U135-U138, U141-Ul51, U155, U157, U158, U163-U170, U172-U174, U176-U181, Ul83-U185, U187, U188, U190, U192, U193, U197, U200-U211, U214-U219, U221-U222, U225-U228, U235-U238, U240, U243, U244, U246-U249, U271, U278-U280, U328, U353, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409-U411

Storage Area	Storage Capacity (Gallons)	Waste Description Lab packs, drummed liquids, solids & sludges	Hazardous Waste Codes
Building 2 - Bay G (not temperature controlled	10,230	Ignitable (D001), toxicity characteristic, F-, P, and U listed hazardous wastes exhibiting ignitability and toxicity characteristic	D001, D018, D028, D029, D035, D043, F003, F004, F005, P003, P005, P014, P016, P022, P064, P067, P068, P073, P092, Pl01, P102, U001, U002, U003, U008,U012, U019, U025, U031, U041-U043, U045, U053, U055- U057, U074, U076-U079, U083- U085, U092, U098, U099, U108, U110, U112, U113, U115, U117, U118, U122, U124, U125, U140, Ul52- U154, U156, U159, U161, U162, U171, U182, UI86, U191
Building 4 (Temperature controlled)	10,230	Non-ignitable, corrosive (D002), toxicity characteristic, F-, K-, U- and P-listed waste exhibiting toxicity characteristic	D002, F001, F002, F006, F007, F008, F009, F010, F011, F012, F019, F024, F025, F034, F035, F037, F038, D004-D017, D019-D027, D030-D034, D036-D042, K001- K011, K013-K026, K028-K043, K046, K048-K052, K060, K061, K064-K066, K071, K073, K083-K088, K090, K093, K095-K105, K112-K118, K123, K125, K126, K132, K136, ALL LISTED "P" CODES IN TABLE C-1 UNLESS IGNITABLE (see above) U004, U007, U009-U011, U014-U018, U021, U022, U024, U026-U030, U032, U034-U039, U044, U047-U052, U058-U064, U067-U073, U075, U080-U082, U086-U091,U093-U095, U097, U101- U107, U109, U111, U114, U116, U119-U121, U126- U132, U135-U138, U141-U151, U155, U157, U158, U163-U170, U172-U174, U176-U181, U183- U185, U187, U188, U190, U192, U193, Ul97, U200-U211, U214-U219, U221-U222, U225-U228, U235-U238, U240, U243, U244, U246-U249, U271, U278- U280, U328, U353, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409 - U411

The Binghamton facility is not authorized to accept the following wastes:

- Reactive wastes (D003) in bulk, except cyanide and sulfide wastes (reactive waste can be accepted as double overpacked lab packs)
- Water reactive wastes (except as double overpacked lab packs)
- Dioxin wastes and PCB's
- D003 wastes which have the property of 371.3(d)(l)(I), (vii) or (viii)
- DOT Division 1.1 through 1.6 explosive wastes (including DOT Type A, B, and C explosives)
- Class 1A flammable liquids in bulk (can only be accepted as lab packs with inner containers less than 1 (one) gallon)
- Poison gas cylinders (P-listed waste codes) and poison gas/mixtures meeting USDOT Division 2.3 hazard zone A
- Gas cylinders, except for aerosol cans and lecture bottles, which may be received in lab packs only
- Class 1 organic peroxides

Limitation on quantity of Oxidizers:

4,000 lbs., double overpacked Class I Oxidizers
1,000 lbs., double overpacked Class II Oxidizers
200 lbs., double overpacked Class III Oxidizers
10 lbs., double overpacked Class IV Oxidizers

Class 1A flammable liquids can only be accepted as lab packs with inner containers less than 1 (one) gallon.

Example: [Double Overpacks lab packed in a 30-gallon container as per DOT requirements and overpacked with absorbent in a 55-gallon drum.]

On-site Generated Wastes

On site generated wastes are derived from clean up, monitoring well waters (non-hazardous) and maintenance operations (e.g., paints, oils, thinners). On site generated waste is profiled for acceptance by an off-site TSDF for disposal or treatment.

Off-site Generated Wastes

The Binghamton facility stores off-site wastes generated by various generators. As a matter of routine, such wastes are pre-approved for acceptance by a commercial (non-Univar) waste management facility.

The largest volume of off-site generated wastes are waste solvents and waste products containing spent solvents. These wastes include paint solvents, lacquer thinner, cleaning and degreasing solvents, waste paints and paint residues, printing inks, distillation bottoms, etc. These wastes are deemed hazardous due to ignitability and toxicity. Some of these wastes are hazardous due to presence of TC constituents.

Containers for hazardous wastes must be made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored. Containers to be stored include portable containers that meet U. S. Department of Transportation (USDOT) requirements for the hazardous material in the container.

Hazardous waste containers are always kept closed during storage. Containers will not be opened, handled, or stored in a manner that may cause them to rupture or leak. If a container holding hazardous waste is not in good condition, or if it begins to leak, it will be placed in a compatible overpack drum that meets the USDOT specifications.

Incompatible wastes will not be placed in the same container. Only wastes that are compatible with each other will be stored within a specific concrete curbed storage area. Wastes which may be stored at the facility are listed in Table C-1 and storage locations in Table C-1.1 of this permit. These hazardous wastes may contain free liquids, however, each storage area is designed for containers with free liquids.

The hazardous waste labels on the containers specifically identify ignitable (D001), corrosive (D002), and potentially reactive (F006, F007, and cyanide-containing) wastes. Nexeo's personnel are trained to keep acids and caustics stored separately and to keep all cyanide-containing wastes separate from acids. Bulk cyanide wastes with a pH lower than 10 will not be accepted for storage at the facility. Also, inorganic corrosive wastes are kept separate from the waste solvents. Hazardous waste containers are stored on pallets. The pallets are adequately spaced for inspection and for access by forklift. Containers are stored with labels visible for inspection (refer to section D for additional information).

C.2 WASTE ANALYSIS PLAN
[40 CFR 270.14(b)(3), 264.13(b) and(c), 266.102(a)(2)(ii), 266.104(a)(2), 268.7]
[6 NYCRR373-1.5(a)(2)(iii), 373-2.2(e)(2) & (3)]

The waste analysis plan which is used to assure that sufficient information is available for the proper handling and storage of wastes is described below.

Nexeo assists its off-site generators in qualifying their hazardous waste streams for approval and acceptance at a selected commercial waste management or reclamation facility. The waste handling program was developed by Nexeo to ensure proper container management and involves joint agreements between Nexeo and various permitted TSDFs. Nexeo assists with pick-up and transportation of off-site generator containerized wastes for disposal or reclamation at a permitted TSDF.

Nexeo subsequently picks up and transports the off-site generators containerized wastes to the identified waste management facility. Containerized off-site generator wastes are stored

completed for wastes subject to these restrictions.

Any significant discrepancy between the shipment, the manifest, or the waste profile sheet will be noted in writing on the manifest. The permittee will immediately contact the off-site generator representative listed on the WPS to reconcile any discrepancies. If a significant discrepancy cannot be reconciled with the off-site generator within fifteen (15) calendar days, the NYSDEC will be notified of our attempt to resolve the matter along with an explanation of the manifest discrepancy. Also, the permittee will notify the department within 15 days if the pre-approved waste delivered by the permittee is rejected by the treatment/disposal facility. All documents pertaining to such rejection of wastes and the actions taken by the permittee will be maintained in the operating records of the facility as per 6 NYCRR 3732.5(c)(2).

Once the permittee's representative has verified the consistency of the manifest and shipment quantity, the integrity of each container, and the presence and accuracy of the labels and coding, the lot of waste is moved to the hazardous waste storage area. The representative will note the reactive properties of each lot of wastes as a basis for segregating the wastes. Plant personnel are trained to keep acids and caustics separate from each other and to keep cyanide wastes separate from acids. Incompatible wastes in adjacent bays are separated by a four-inch-high concrete curb and minimum aisle space width of 2.5 feet, and at least 5 feet of central aisle space.

C.2.a Parameters and Rationale
[40 CFR 264.13(b)(l), 6 NYCRR 373-2.2(e)(2)(i)]

The most extensive analytical evaluations of wastes are conducted by the receiving facility's laboratory. The qualifying or confirmatory testing is done primarily for five reasons:

1. To confirm the accuracy of the information provided on the WPS;
2. To confirm the accuracy of the declared RCRA hazardous waste code (WPS);
3. To establish the most effective waste management alternative;
4. To establish the safest container/shipment handling methods; and
5. To establish potential land disposal restrictions for the waste.

C.2.b Sampling Methods
[40 CFR 264.13(b)(3), Part 266- Appendix IX, 6 NYCRR 373-2.2(e)(2)(iii)]

For on-site generated waste, if a sample is required, a representative sample of the waste stream is obtained following the procedures outlined in U.S. EPA Publication, SW-846-Test Methods for Evaluating Solid Waste, Physical Chemical Methods, Third Edition, November 1986 or most recent update.

adjacent bays are separated by a four-inch-high concrete curb and minimum aisle space width of 2.5 feet, with at least 5 feet of central aisle space. The basis for segregating the wastes are the known properties of the waste and the process from which they come. This is supplemented by the data which is supplied by the generator on the WPS. This is confirmed by the pre-acceptance procedure.

No mixing of off-site generated hazardous wastes from different generators or different waste streams, or opening of off-site generated waste containers is done by this facility. Incompatible onsite generated wastes are not mixed or placed in the same container. Self-reactive wastes (including DOT Type A, B, and C) are not accepted at this facility. Organic peroxide/formulation wastes with self accelerated decomposition temperature (SADT), as determined in accordance with 49 CFR 173.21, below ambient temperature will not be accepted at the facility.

C.3 WASTE ANALYSIS REQUIREMENTS PERTAINING TO LAND DISPOSAL RESTRICTIONS
[40 CFR 262.10, 262.11, 264.13, 264.73, 266.102(a)(2)(ii), Part 268, 270.14(b)(3)]

Waste that is restricted from land disposal will not be accepted for storage unless it is accompanied by one of the applicable notices, an example of which is shown in Attachment C-2.

C.4 WASTE ANALYSIS
[40 CFR 261.21 THROUGH 261.24, 264.13()(1), 268.1, 268.7, 268.9, 268.32 THROUGH 268.37, 268.41 THROUGH 268.43]

The hazardous wastes stored at this facility are listed in Table C-1. The facility stores wastes that are generated off-site and wastes that are generated onsite. Wastes are accepted for storage only after they are pre-qualified for acceptance by a permitted TSDF. Each waste stream is profiled or characterized for its specific chemical or physical properties. This information is provided by the generator. A copy of the WPS is included in Attachment C-1.

C.4.a.1 Spent Solvent and Dioxin Wastes
[40 CFR 264.13(a)(1), 268.2(F)(1), 268.7, 268.30, 268.31}

F001 to F005 spent solvent wastes which are restricted from land disposal are identified by the generator during the pre-acceptance process, and the information is confirmed by the ultimate TSDF. These wastes are accompanied by the proper LDR notification form which indicates treatment standards. A typical LDR notification form is included in Attachment C2.

Containers are marked with the initial date of storage, and may not be stored at the facility for more than one year. Nexeo will not accept any dioxin or PCB wastes for storage at the facility.

a. The areas where the consolidation of loads takes place by moving containers from one transport vehicle to another or containers are removed from transport vehicles and stored prior to being reloaded are designed to meet the secondary containment requirements stipulated in 6NYCRR Part 373, Section 373-2.9(f).

b. The facility does not commingle wastes by repackaging, mixing or pumping from one container to another.

c. Transfer wastes are packaged in accordance with applicable USDOT regulations set forth in 49 CPR Parts 173, 178 and 179.

d. Transfer wastes are classified and segregated in accordance with 49 CFR 173.2(a) and 177.848 for storage and management at the facility.

e. Lab packs will be packaged in accordance with 49 CFR 173.12(b) and the contents of lab pack containers that are packed by other than the facility personnel will be inspected prior to transport to the facility by the facility personnel to ensure that they are packaged in accordance with USDOT requirements.

f. Solid wastes will be managed in accordance with 6 NYCRR Part 360, Section 360-1.7(b)(7).

g. Transfer wastes (Hazardous wastes) are stored on site for a maximum of 10 days.

h. A current inventory of all transfer wastes on site will be maintained at all times.

i. Transfer waste containers will be inspected each operating day.

j. 10-Day transfer wastes trucks if parked overnight will be staged in designated areas.

k. Ignitable wastes and oxidizers will be managed in accordance with NFPA requirements and Fire & Property Maintenance Code of New York State.

Because containers are never opened while in storage the potential for reactions between incompatible materials remains low. However, a risk does exist in the event of leaks from multiple adjacent containers. To reduce this hazard, containers are segregated according to the USDOT segregation rules for hazardous materials in transportation (see 49 CFR 177.848). Materials that are prohibited from storage together on a transport vehicle or

Attachment IV
PROCEDURES TO PREVENT HAZARDS

F.1 SECURITY
[6 NYCRR 373-1.5(a)(2)(iv)]

F.1.a Security Procedures and Equipment

The Binghamton facility is equipped with a barrier (fence) and has a means to control entry.

F.1.a.1 24-Hour Surveillance System
[6 NYCRR 373-2.2(f)(2)(i)]

The facility uses the barrier and controlled entry method as well as a 24-hour surveillance system, in the office and ignitable and reactive bay areas, as described below.

F.1.a.2 Methods to Control Entry

F.l.a.2.a Barrier
[6 NYCRR 373-2.2(f)(2)(ii)]

The active portion of the plant property is completely enclosed by a seven-foot high fence. The fence is of chain link construction with barbed wire on top. The fence is in good condition.

F.1.a.2.b Means to Control Entry
[6 NYCRR 373-2.2(f)(2)(ii)]

As the plot plan for the facility indicates, access to the plant yard is gained through the gates adjacent to the office on Broad Street. This gate is open during plant operating hours which are 7.00 a.m. - 6.00 p.m., Monday - Friday. This gate is closed and locked during non-operating hours. There is also a gate on Bevier Street adjacent to Building #4 and a railroad gate. These gates are locked at all times. Part A, Attachment A-2 contains the site layout including the location of the fence.

The hazardous waste storage area is inside the building and the doors of the storage areas are shut except when the loading dock is being used. At these times, personnel are present to control access to the storage area. The ignitable, reactive, poisons, toxics and corrosive hazardous waste storage areas are adjacent to the plant administrative office, which are in the same building. Personnel are always present during normal working hours. The office and the hazardous waste storage areas Bays A, B, C, D, E and G, and Building 4 are equipped with an electronic security alarm and fire alarm system. The alarm systems are monitored by a central station, which is operated 24 hours a day by United Alarms. If the central station receives an alarm and does not subsequently receive a coded verification of a false alarm, it contacts the local police department and the fire department, if the fire alarm is triggered, and then contacts the emergency coordinator of Nexeo to inform them of the possible intrusion or fire.

Attachment V
PREPAREDNESS AND PREVENTION

F.3 WAIVER OF DOCUMENTATION OF PREPAREDNESS AND PREVENTION REQUIREMENTS
[6 NYCRR 373-1.5(a)(2)(vi)]

No waiver of documentation of preparedness and prevention requirements is requested for this facility.

F.3.a Equipment Requirements
[6 NYCRR 373-2.3(d)]

F.3.a.1 Internal Communications
[6 NYCRR 373-2.3(c)(1)]

The plant has an intercom system which is used to make announcements over the plant's public address system. This is adequate to provide emergency instructions to facility personnel in a situation requiring such action.

F.3.a.2 External Communications
[6 NYCRR 373-2.3(c)(2)]

The facility telephone system is used for summoning emergency assistance from the local police and fire departments and from state emergency response teams.

F.3.a.3 Emergency Equipment
[6 NYCRR 373-2.3(c)(3)]

The facility is equipped with emergency equipment to combat a fire, explosion, or spill of products or hazardous waste. A listing of the emergency equipment is included in the Contingency Plan which is in Attachment 6 of this permit application.

F.3.a.4 Water for Fire Control
[6 NYCRR 373-2.3(c)(4)]

Fire suppression water is supplied by the municipal water system. Water is available at adequate volume and pressure to supply fire hoses, foam producing equipment, automatic sprinklers and water supply systems should the need arise. The facility has an automated sprinkler system in the permitted hazardous waste storage areas where ignitable hazardous wastes are stored and in the office. The sprinklers are monitored for 24 hours per day by an independent alarm service.

F.3.b Aisle Space Requirements
[6 NYCRR 373-2.3(f)]

The hazardous waste container storage area is inspected daily for proper placement of containers and pallets. The storage area is maintained in good order with adequate aisle space for placement of pallets. All stored containers can be fully inspected from the aisles. A minimum space aisle space of 2.5 feet is maintained, with central aisle width at least 5 feet (see Part A Attachment A-2 for aisle locations). There is adequate space around the hazardous waste storage area and stored containers to allow for the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment in the event of an emergency.

F.4 PREVENTIVE PROCEDURES, STRUCTURES, AND EQUIPMENT
[6 NYCRR 373-1.5(a)(2)(viii)]

F.4.a Unloading Operations
[6 NYCRR 373-1.5(a)(2)(viii)(a)]

Each container loaded/unloaded is inspected for deterioration and any suspect container is placed in a recovery drum. Absorbent pads and corrosive neutralizers are available for clean up, if necessary. Containers are stored, loaded and unloaded on wooden pallets from trucks at the dock. A forklift is used to load and unload pallets to and from trucks. Each forklift is rated for service in a Class I Division II area. A certification plate is attached to each unit. A forklift driver is always present until the waste is unloaded at the storage area or loading dock.

The loading/unloading pads are coated with an impervious coating.

F.4.b Run-off
[6 NYCRR ·373-1.5(a)(2)(viii)(b)]

The hazardous waste storage area is curbed to prevent run-off to other areas. The storage area is within the warehouse and, therefore, not subject to precipitation. The warehouse floor is elevated above grade, and the entire facility is not within a 100-year floodplain.

F.4.c Prevention of contamination of Water Supplies
[6 NYCRR 373-1.5(a)(2)(viii)(c)]

The hazardous waste container storage area is located within the warehouse and is not subject to precipitation or storm water run-on. The storage area is fully-contained to prevent run-off of spills or leaks. The facility is not within a 100-year floodplain. There are no known water wells near the facility. The site drainage pattern does not interact with the city water supply. Therefore, there is little potential for operations at this facility to contaminate water supplies.

F.4.d Equipment and Power Failure [6 NYCRR 373-1.5(a)(2)(viii)(d)]

Operations in the hazardous waste storage area would not be affected by a power outage since material handling is manual. The facility is equipped with emergency lighting that will function in the case of a power outage.

The principal equipment failure would be mechanical failure of the forklift trucks. In that event, hand trucks would be used to move the containers.

F.4.e Personnel Protective Equipment [6 NYCRR 373-1.5(a)(2)(viii)(e)]

The facility maintains standards for protective clothing and equipment that are required for the workplace. Adequate supplies of personal protective clothing and equipment are kept at the facility. The protective equipment at the facility is listed and described in the facility Contingency Plan in Section G of this application.

The facility maintains standards for protective clothing. These standards are described in Standard Practice Instruction (SPI) I-8.

F-5 PREVENTION OF REACTION OF IGNITABLE, REACTIVE, AND INCOMPATIBLE WASTE [6 NYCRR 373-1.5(a)(2)(ix)]

F.5.a Precaution to Prevent Ignition or Reaction of Ignitable or Reactive Waste [6 NYCRR 373-2.2(i)(1) & (3)]

To reduce/prevent the possibility of a chemical reaction, drivers are instructed to never pick up any leaky, suspect, or deteriorated containers of waste. Once any material is received, only closed containers are stored at the facility. Hazardous waste containers are always kept closed when stored or moved. The storage areas are designed to prevent/reduce the possibility of an adverse reaction between incompatible wastes because of storage bays separated by a four-inch-high concrete curb and minimum aisle space of 2.5 feet, with at least 5 feet of central aisle space. Smoking is not permitted in the plant, and "No Smoking" signs are conspicuously posted. The forklifts which are used to handle hazardous wastes are approved for use in Class I, Division 2 hazardous areas. Potential reactive material is stored in separate bays.

In addition, the storage area is inspected daily and any spillage is cleaned up immediately which also reduces the possibility of any reaction. Any suspect or leaky container is placed in a recovery drum.

F.5.b General Precautions for Handling Ignitable or Reactive Waste and Mixing of incompatible Waste [6 NYCRR 373-1.5(a)(2)(ix), 373-2.2(i)]

No treatment or mixing of wastes is done by this facility. Containers are inspected upon arrival at the facility to assure that they are in good condition. Containers, which are kept closed, are then moved into the proper storage area. Containers are not opened at this facility. Therefore, accidental mixing of ignitable or reactive wastes is highly unlikely.

F.5.c Management of Ignitable or Reactive Wastes in Containers [6 NYCRR 373-1.5(b)(3), 373-2.9(g)]

The ignitable waste storage area is more than 15 meters (50 feet) from the facility's property line.

F.5.d Management of Incompatible Wastes in Containers [6 NYCRR 373-1.5(b)(4), 373-2.9(h)(1) & (2)]

Facility personnel who are responsible for the management and storage of hazardous waste are fully trained in proper waste handling procedures. Stored waste materials are not handled outside of the containers in which they were received. Potentially incompatible wastes are stored in separate bays separated by curbs or other means. Waste containers are approved for receipt and shipment only after confirmation that the containers are in good condition and properly closed. Once received, further handling of the waste materials is neither necessary nor allowed, and no mixing of wastes occurs. Therefore, incompatible wastes would neither be put into the same container with other wastes nor put into an incompatible container in the event of a transfer due to leakage. Incompatible wastes are segregated according to DOT compatibility categories. Unmarked or unknown wastes are not accepted. The DOT classification may be determined by reference to 49 CFR Part 172.101, "Hazardous Materials Table." Additionally, the facility uses MSDS sheets and the EPA document "A Method for determining the Compatibility of Hazardous Materials" as guidance for segregation of waste for storage.

No Class 1 organic peroxides will be accepted at the facility for storage.

The facility will not store organic peroxides or other temperature sensitive materials with a self-accelerating decomposition temperature (SADT) <122 ºF (as determined by any of the test methods described in Part II of the UN manual of test and criteria) unless deactivated.

Organic peroxides or temperature sensitive materials that are passed their expiration date or mixtures of temperature sensitive materials or formulations must be deactivated as provided in 49 CFR 173.225 with the required amount of dilute to desensitize them in order to be accepted for storage at the facility. The desensitized organic peroxides will be packaged in accordance with 49 CFR 173.225 and 173.24(a) and must be labeled with the chemical names of the waste along with other information adequate for proper storage.

Lithium batteries will not be accepted for storage at the facility

Copies of this Closure Plan and subsequent approved amendments to the plan will be available at the facility until closure of this area is completed and certified.

I.1.b Partial Closure and Final Closure Activities
[6 NYCRR Part 373-2.7(c)]

The hazardous waste storage area is expected to remain operational during the life of the Binghamton facility. No partial closure activities are planned for this facility. If an unanticipated partial closure is necessary, this Closure Plan will be amended in accordance with the regulations.

I.1.c Maximum Waste Inventory
[6 NYCRR Part 373-2.7(c)(2)(iii)]

The maximum inventory of hazardous wastes that could be in storage at any time during the life of this facility is 53,130 gallons (which is equivalent to 966, 55-gallon drums). Table C-1 in the Waste Analysis Plan (Attachment I of this Permit) contains a list of all hazardous waste codes the facility is permitted to store. Table C-1.1 lists which bays are used to store the various hazardous wastes.

I.1.d Schedule for Closure

A time schedule for the closure of the hazardous waste storage unit is shown in Figure I-1. Figure I-1 represents the maximum time allotted for closure activities at the Binghamton facility.

I.1.d.1 Time Allowed for Closure
[6 NYCRR 373-2.7(d)(l) & (2)]

The permittee will notify the Commissioner in writing at least 45 days prior to the date on which it expects to begin closure of the hazardous waste management unit.

Figure I-1 shows that:

- All hazardous wastes will be removed off-site within 90 days from the receipt of the final volume of waste.
- All closure activities will be completed in accordance with the approved closure plan within 180 days from the receipt of the final volume of waste.

I.1.d.1.a Extension of Closure Time
[6 NYCRR Part 373-2.7(d)(1)(i)]

If closure activities are expected to extend beyond 180 days after receiving the final volume of hazardous waste, a petition for a schedule for closure that justifies that a longer period of closure time is required will be submitted to the Department for approval.

Hazardous waste is stored in separate bays A, B, C, D, E, and G, and Building 4 (Attachment A-2). Each storage bay is separated by concrete curbing and ramps which will contain a spill or leak within the bay. Hazardous waste containers are stored on pallets within each storage bay. Bays F and H are used to store only 10-day transfer and non-hazardous wastes.

The base of the storage area is constructed of concrete which is free of cracks or gaps and is sufficiently impervious to contain leaks or spills, until any collected material is discovered and removed. The concrete base in each bay is sealed with a coating which is compatible with the wastes stored.

Closure of this storage area will be completed within 180 days after receiving the final volume of hazardous waste. The need for a time extension is not anticipated at this time. Closure activities will include:

Within 90 days of receiving the final volume of hazardous waste, the entire inventory will be transported to a RCRA permitted off-site, treatment, storage, or disposal facility (TSDF). Containers will be properly manifested, packaged, and labeled for shipment according to U.S. Department of Transportation (USDOT) and EPA/NYSDEC regulations. Prior to shipment, containers will undergo an additional inspection for leakage. Leaking containers will be placed in overpack drums with absorbent materials. Any equipment or clothing that contacts the hazardous waste will be decontaminated or disposed of as a hazardous waste.

Any liquids in the storage bay containment system will be drummed and removed for disposal at a permitted TSDF. The floor will be swept clean and/or scraped to remove any solid residues. The entire surface area of the hazardous waste storage area and any equipment used in the transport and handling of hazardous waste or equipment used during closure activities will be steam cleaned or rinsed using a high pressure water wash within the storage area containment system.

The floor will be washed with a steam generator cleaner unit employing an industrial grade detergent, pressurized steam and water. A heavy duty industrial vacuum cleaner will be used to pick up water and sediment from the floor. Detergent washing will continue until it is visually evident that the floor surface is clean. The wash water will be disposed of at a permitted TSDF facility.

Plastic sheeting, or other moisture barrier, will be placed around the outside perimeter of the storage area to protect surrounding surfaces. This sheeting will be characterized and managed appropriately following the decontamination of the storage area. Following steam cleaning and scrubbing activities, the entire surface area of the storage area will be triple rinsed with potable water. The floor will be thoroughly wetted over the entire surface area. Then using a dry vacuum, new floor mops, and squeegees, the surface water will be removed working from the periphery to the center. Once the first rinse is removed, this procedure will be repeated for the second and third rinses.

Wash and rinse water will be accumulated into 55-gallon containers. This water will be characterized (i.e., analyzed for corrosivity and TCLP and managed accordingly. If determined to be hazardous, it will be managed in the same manner as the final volume of hazardous waste. An estimated 200 gallons per hour of wash water will be generated during steam cleaning, rinsing, and scrubbing activities. The cleaned area will be inspected using a photo ionization detector to determine completeness of cleaning. As proof of decontamination of the storage bays the protocol listed in section I.9 of this document will be used. Two blank samples will also be collected. Two rinsate samples from each bay and Building 4 will be sent for chemical analysis. Each sample will be analyzed for pH, TCL volatiles, TCL semi volatiles and TAL metals. Sampling methods will be in accordance with the procedures established in SW-846 *(EPA Test Methods for Evaluating Solid Waste, November 1986, or most recent update).* The closure data will be provided as a NYSDEC Analytical Service Protocol (ASP) category B or Contract Laboratory Program (CLP) data deliverables package by the analytical laboratory to provide sufficient analytical QC data quality.

Soils in the facility are not expected to be contaminated by the container storage of hazardous wastes. However, to demonstrate that the soils are clean, two soil samples six inches below the concrete pad will be taken from each bay and analyzed for the same parameters as the rinsate samples. The exact sampling locations will be determined in consultation with the NYSDEC representative at the time of closure. The analytical values will be compared to 6 NYCRR Part 375-6, Remedial Program Soil Cleanup Objective. If contaminants above these levels are present in the soil samples, additional sampling and analysis may be required.

I.1.e.2 Analytical Parameters and Test Methods

Table C-1 contains a list of all hazardous waste codes the facility is permitted to store. Samples collected during closure activities will be analyzed for the most common constituents which have been stored at this facility, according to the applicable SW -846 methods by a NYSDOH Environmental Laboratory Approval Program (ELAP) certified off-site analytical laboratory.

Flash point and pH will also be analyzed to determine if samples exhibit the characteristics of ignitability or corrosivity.

I.1.e.3 Clean Standards

The sample results for the rinsate samples shall be compared to the New York State Water Quality Standards for Class GA groundwater or background per 6NYCRR Part 703.6. If the sample results are less than this water quality standard, the storage area will be considered closed clean.

The final and specific choice of sampling points, number of samples, type of sampling to be performed and closure analyte list will be determined at the time of closure by NYSDEC. These determinations will be based upon the past history of operating practices and types of wastes handled at the facility. The operating record, the record of spills, the types of waste released, location of spills in the facility and the condition of secondary containment systems will also provide data to be used in these determinations. The flexibility afforded by this approach will

ATTACHMENT VIII
PROCESS INFORMATION

D.1 CONTAINERS
[40 CFR 270.15, 264.170 through 264.178, 6 NYCRR 373-1.5(b), 373-2.9]

Containers used for storage of hazardous wastes at this facility are portable containers which meet the requirements of the U.S. Department of Transportation (USDOT). The layouts of the hazardous waste storage areas are shown in Attachment A-2.

This section discusses process information for the storage of containerized wastes. The facility will store customer's containerized wastes until a truckload quantity is accumulated for shipment to a permitted disposal site.

Container Inventory Logging System

When the waste enters the plant, a copy of the manifest and profile sheet are made and attached to a clipboard. There is a separate clipboard for each treatment, disposal, and recycling (TSD) facility used by the permittee for ultimate disposition of the waste. On the front of each clipboard there is a cover sheet that tracks the total number of containers currently in storage destined for shipment to each off-site permitted TSD facility used by the permittee. Shipments of wastes to the designated TSD facility are scheduled once the drum count approaches a full load.

Container Storage Management

Table D-1 provides a description of types of storage in each bay (area), container specifications, storage volumes, and secondary containment.

While in storage on-site, incompatible wastes are segregated by concrete curbing. There are six individual curbed bays in the warehouses utilized to prevent the accidental mixing of incompatible wastes. Each bay has sufficient capacity to contain a leak or spill as described in this section.

Only compatible wastes are stored in each individual bay. Additionally, containers in each bay are segregated as to the ultimate TSD facility. At the end of each working day, a site diagram of the hazardous waste storage area is posted on the door of the facility that illustrates the number of containers of each hazard classification in each bay. This site diagram information is posted in accordance with the agreements with local authorities.

The warehouse rooms are separated from the other rooms by fire doors. This area is 50 feet from the property line in accordance with State and Federal Regulations for storage of ignitable wastes.

Non hazardous wastes are not stored in the hazardous waste storage areas.

Basic Design Parameters, Dimensions, and Materials of Construction

The layout and location of the hazardous waste storage areas is shown in Attachment A-2. This drawing provides the overall dimensions of the hazardous waste storage areas.

The hazardous waste storage area has six individual storage bays in three warehouse rooms in two buildings (Building #1 and #2) in addition to Building 4. These areas meet the requirements for secondary containment and separation of incompatible wastes as specified in Title 40 of the Code of Federal Regulations (40 CFR) Part 264, Subpart I.

Each storage bay is curbed to provide secondary containment in case of potential spills and leakage. Entrance ramps are installed on one end of each storage bay as shown in the layout drawing, Attachment A-2.

D.l.a Containers with Free Liquids

Hazardous wastes that may be stored at this facility are listed in Section C, Table C-1 and Table D-1 of this permit. The chemical and physical characteristics of these wastes are described in Section–C - Waste Characteristics. These hazardous wastes may contain free liquids, therefore, the hazardous waste storage area is designed for containers containing free liquids.

Table D-1

Storage Area	Waste Description	Container specifications (USDOT)	Storage Volume (Gal)	Secondary Containment Volume (Gal)
Bay A (Temp. controlled)	Ignitable (D001), water reactive, reactive (D003) not containing cyanide and sulfide, organic peroxides, and oxidizers	1A1,1A2,1H1	1,925	614
Bay B (Temp. controlled)	Ignitable (D001), F-, U- and P-listed hazardous wastes exhibiting ignitability and toxicity characteristic, reactive (D003) only for aqueous cyanide and sulfide –	1A1,1A2,1H1	9,075	1,874
Bay C (Temp. controlled)		1A1,1A2,1H1 1H2,6HA1, 6PA1	1,595	625
Bay D (Temp. controlled)	Ignitable (D001), toxicity characteristic hazardous wastes	1A1,1A2,1H1 1ID,	8,745	3,382
Bay E (Temp. controlled)	Non-ignitable, corrosive , F-, K-, U- and P-listed waste exhibiting toxicity characteristics	1A1,1A2,1Hl 1H2, 4G, 5Hl, 5H2, 5H3, 1G	11,330	4,132
Bay G	Ignitable (D001), toxicity characteristic, F-, P, and U listed hazardous wastes exhibiting ignitability and toxicity characteristic	Same as Bays B and C	10,230	2,716
Building 4 (Temp. controlled)	Non-ignitable, corrosive (D002), toxicity characteristic, F-, K-, U- and P-listed waste exhibiting toxicity characteristic	1A1,1A2,1Hl 1H2, 4G, 5Hl, 5H2, 5H3, 1G	10,230	10,056
Total storage volume			53,130	23,876

All containers and liners used to manage hazardous wastes meet USDOT specifications. Stacking height shall not exceed 2 tiers high. Containers of different capacities shall not be stored on the same pallet for stacking purposes. All non-cyanide and sulfide reactive wastes are accepted only as double overpacked labpacks. These wastes are labpacked in a 30 gallon container as per USDOT requirements, and overpacked in a steel drum with vermiculite.

Organic peroxide will be stored only as double over packed labpacks. Packages containing organic peroxide formulations will be individually marked with the chemical name of the organic peroxide or with other information adequate for proper storage. Storage areas for organic peroxides will be maintained within the recommended temperature range for the materials stored. The storage of organic peroxides with

concentrations above the limits specified in 49 CFR 173.225 is prohibited. Organic peroxides are stored on raised containment pallets.

Building #1 contains the main plant office and two warehouse storage rooms. Hazardous wastes are stored in both Building 1 and Building 2 warehouse storage rooms, and Building 4.

Ignitable Waste Storage Area

D001 and other ignitable wastes are stored within five individual storage bays, Bay A, B, C, and D of Building 1 and also in Bay G in Building 2. The storage bays are separated by curbs for secondary containment with ramps for entry. The room has a total area of 2,200 square feet. The storage bays occupy 940 square feet. The remaining area consists of aisle ways for the movement of equipment (forklift trucks) and personnel. The bays are dedicated for the storage of all wastes which have a flash point below 140° F. Bays A, B, C, and G store D001, toxicity characteristic (TC), and F-, U-, K- and P-listed wastes exhibiting ignitability and toxicity characteristic, and Bay D stores D001 and toxicity characteristic wastes (see Table C-1.1 for specific waste codes). These areas are 50 feet from the property line in accordance with State and Federal Regulations for storage of ignitable wastes.

Attachment A-2 shows the floor plan and configuration of the permitted hazardous waste storage areas, pallets and aisle space with dimensions in the hazardous waste warehouse. The existing warehouse floor is 6-inch-thick concrete and is in good condition with no cracks, chips, or spalling. Curbs and entrance ramps extend at least 4 ½inches above the base floor elevation. The south warehouse room is separated from the other rooms by a fire door and man doors.

Corrosive, Non-Corrosive and Non-Ignitable Waste Storage Areas

The north warehouse room, in Building 1, Bay E and Building 4 store wastes which exhibit the characteristic of corrosivity. These are D002 wastes and any other toxic or TC waste which may also exhibit corrosivity. Other waste includes non-ignitable, halogenated and non-halogenated toxic wastes, TC wastes, and U-, K- and P-listed wastes. The layout and dimensions of the storage bays are shown in the layout drawing in Attachment A-2.

Building 1has a total area of 4,000 square feet. The storage bays occupy a total of 2,780 square feet. This provides adequate room for the movement of waste handling and emergency equipment and personnel in and around the storage bays. Entrance ramps are installed in the west end of the storage bays. Curbing is installed in the southeast corner of the room to separate the firewater sprinkler system header from the hazardous waste storage area.

Specifications for the construction of entrance ramps and curbing are given in the layout drawing. Curbs and ramps are set into the existing warehouse floor to extend at least four inches above the base floor elevation.

All New York non-hazardous wastes are stored separate from hazardous wastes in other areas of the plant (Building 2, Bay F and Bay H). Bay F is a temperature-controlled area to prevent non-hazardous temperature sensitive wastes from freezing.

D.l.a.1 Description of Containers
[40 CFR 264.171, 264.172, 270.14(b)(2), 6 NYCRR 373-2.9]

All containers used for each hazardous waste must meet USDOT requirements for the appropriate hazard. Facility personnel responsible for shipping and receiving hazardous waste containers are trained to inspect the containers to assure compliance. A list of container types is included as Table D-1 in this section. Examples of labels used for container marking are included in Appendix B of Attachment VIII. Container labeling requirements are satisfied by following U S DOT requirements (Title 49 of the Code of Federal Regulations [49 CFR]).

The facility ensures that all containers and liners used to manage hazardous wastes at the facility meet USDOT specifications.

D.l.a.2 Container Management Practices
[40 CFR 264.173, 6 NYCRR 373-1.5(b), 373-2.9]

The hazardous waste storage area drum storage layout is shown on Attachment A-2. This drawing shows the overall dimensions of the individual storage bays/areas and the arrangement of the storage pallets. Waste containers are always kept closed when in storage. This facility serves only as temporary storage for customer generated wastes. Hazardous waste containers are marked with hazardous waste labels (see Appendix B of Attachment VIII) and labeled with the appropriate USDOT hazard labels.

The hazardous waste storage area is inspected daily to ensure that containers are stored in a manner to prevent ruptures and leaks. Containers are stored on pallets. The storage area is inspected to verify that pallets are properly placed and that containers are properly placed on the pallets. The pallets elevate the drums by 4 inches.

Containers are stacked no more than two tiers high in the hazardous waste storage area with each layer palletized. This ensures stability. Pallets are placed in storage areas such that an aisle spacing of a minimum of 2.5 feet is maintained between rows of pallets, with central aisle width at least 5 feet.

The hazardous waste storage area is away from sources of ignition. The storage area is located more than 50 feet from the nearest property line. Containers of incompatible wastes are stored in separate bays or containment areas within the hazardous waste storage area. All ignitable wastes stored at this facility are compatible. No self-reactive (DOT Type A, B, or C) or explosive wastes are accepted at this facility.

Containers and pallets of containers are moved and handled with forklift trucks by fully-trained personnel.

D.1.a.3 Secondary Containment System Design and Operation [40 CFR 270.15(a)(1), 264.175(a), 264.175(d)], [6 NYCRR 373-1.5(b)(1)(I), 373-2.9(f)(1)(l)]

The layout of the hazardous waste storage areas are shown on Attachment A-2.

This storage facility has six individual storage bays in three warehouse rooms, in addition to Building 4. Each storage area is curbed for secondary containment of potential spills and leakage. Entrance ramps are installed on one end of each storage bay as shown in the layout drawing. The height of the curbing and entrance ramps is at least four ½inches above the base floor elevation.

The capacity of the secondary containment system is calculated as shown in Section D.l.a.3.c below.

D.l.a.3.a Requirement for the Base or Liner to Contain Liquids [40 CFR 264.175(b)(1)]

Containers are stored in bays located inside the hazardous waste storage area warehouse on a six-inch thick concrete floor that is free of cracks or gaps. Curbs and ramps are doweled to existing concrete and adhered to the concrete with an epoxy bonding agent.

Protective epoxy coating is applied to the floors of the storage areas as required according to the type of waste stored in the Bay. For example, bays holding corrosive waste is coated for protection from strong acids and alkalis with a chemical resistant sealer. Or, coated for protection from chlorinated solvents with a solvent resistant coating.

Technical specifications for the various coatings are identified in the independent secondary containment assessment required by Module III, Section K.1 of the Permit.

The floors of the waste container storage areas are inspected daily. If the condition of the coating has deteriorated, or worn out or the secondary containment is found to have cracks or gaps, it will be noted in the inspection log and re-coated/repaired for the continued use of the secondary containment. All liquid spills or leaks are cleaned up immediately. Any suspect or leaking containers are placed in recovery drums, which are kept in plant inventory for such purposes. Spills will be neutralized and/or absorbed with materials which are maintained in plant inventory for such purposes.

The identity of the spilled material can be determined in most cases from plant inventory records. If the identity of the recovered material cannot be determined from plant records, it will be sampled and analyzed by an ELAP certified external lab, as necessary, prior to being submitted for disposal at a permitted disposal facility. If the identity or characteristics of the recovered material is expected to change as a result of the cleanup process, a sample will be taken and analyzed by an ELAP certified external lab.

D.l.a.3.b Containment System Drainage
[40 CFR 270.15(a)(2), 264.175(b)(2)], [6 NYCRR 373-1.5(b)(1)(ii), 373-2.9(f)(1)(ii)]

There are no drains within the secondary containment system. Waste containers are stored on pallets which elevate the containers approximately four inches above the floor, to protect the bottoms of containers from contact with spilled or leaked liquids.

D.l.a.3.c Containment System Capacity
[40 CFR 270.15(a)(3), 264.175(b)(3)], [6 NYCRR 373-1.5(b)(1)(iii), 373-2.9(f)(1)(iii)]

Storage Bay A Containment Capacity

Storage Bay A can contain five pallets as shown on the storage area layout plan, Attachment A-2. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high. This storage bay is permitted for a storage volume of 1,925 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 193 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

1,925 gallons X 0.10^{a} = 193 gallons

Capacity Available:

(25 ft X 0.46ft X 8.83 ft) X 7.48 gal/ft^3 = 760 gallons

Volume Displacement of Ramp:

(3ft X 0.46ft X 8.83 ft X 0.5) X 7.48 gal/ft^3 = 46 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 5 pallets X 7.48 gal/ft^3 = 100 gallons

Net Capacity Available:

760 gallons - 46 gallons- 100 gallons = 614 gallons

There are 614 gallons of secondary containment available which exceeds the required minimum containment capacity of 193 gallons.

Storage Bay B Containment Capacity

Storage Bay B can contain 24 pallets as shown on the storage area layout plan, Attachment A-2. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 9,075 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 908 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

9,075 gallons X 0.10[a] = 908 gallons

Capacity Available:

(24ft X 0.46ft X 30ft) X 7.48 gal/ft^3 = 2477 gallons

Volume Displacement of Ramp:

(3 ft X 0.46ft X 24ft X 0.5) X 7.48 gal/ft^3 = 124 gallons

Volume Displacement of Pallets:
2.67 ft^3/pallet[b] X 24 pallets X 7.48 gallons/ft^3 = 479 gallons

Net Capacity Available:

2477 gallons- 124 gallons- 479 gallons = 1874 gallons

There are 1,874 gallons of secondary containment available which exceeds the required minimum containment capacity of 908 gallons.

Storage Bay C Containment Capacity

Storage Bay C can contain 4 pallets as shown on the storage area layout plan, Attachment A-2. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 1,595 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 160 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

1,595 gallons X 0.10[a] = 160 gallons

Capacity Available:

(10ft X 0.46ft X 22ft) X 7.48 gal/ft^3 = 757 gallons

Volume Displacement of Ramp:

(3 ft X 0.46ft X 10ft X 0.5) X 7.48 gal/ft^3 = 52 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 4 pallets X 7.48 gal/ft^3 = 80 gallons

Net Capacity Available:

757 gallons- 52 gallons- 80 gallons = 625 gallons

There are 625 gallons of secondary containment available which exceeds the required minimum containment capacity of 160 gallons.

Storage Bay D Containment Capacity

Storage Bay D can contain 23 pallets as shown on the storage area layout plan, Attachment A-2. Each pallet holds up to four 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 8,475 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 846 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

8,475 gallons X 0.10[a] = 846 gallons

Capacity Available:

[(25ft X 58ft) - (24ft x 4ft) - (8ft x 4ft)] x 0.46ft X 7.48 gal/ft3 = 4,549 gallons
(three dimension characteristics are listed as the bay is not a rectangle)

Volume Displacement of Ramp:

(3ft X 0.46ft X 25ft X 0.5) x 2 X 7.48 gal/ft^3 = 258 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 23 pallets X 7.48 gallons/ft^3 = 459 gallons

Net Capacity Available:

4,549 gallo–s - 459 gallons- 258 gallons = 3,832 gallons

There are 3,832 gallons of secondary containment available which exceeds the required minimum containment capacity of 846 gallons.

Storage Bay E Containment Capacity

Storage Bay E can contain 30 pallets as shown on the storage area layout plan, Attachment A-2. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 11,330 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 1,133 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

11,330 gallons X 0.10[a] = 1,133 gallons

Capacity Available:

(25 ft X 58 ft) x 0.46ft X 7.48 gal/ft^3 = 4,989 gallons

Volume Displacement of Ramp:

(3 ft X 0.46ft X 25 ft X 0.5) x 2 X 7.48 gal/ft^3 = 258 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 30 pallets X 7.48 gal/ft^3 = 599 gallons

Net Capacity Available:

4,989 gallons- 599 gallons- 258 gallons = 4,132 gallons

There are 4,132 gallons of secondary containment available which exceeds the required minimum containment capacity of 1,133 gallons.

Storage Bay G Containment Capacity

Storage Bay G can contain 27 pallets as shown on the storage area layout plan, Attachment A-2. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two pallets high.

This storage bay is permitted for a storage volume of 10,230 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 1,023 gallons.

The secondary containment capacity of this storage bay is as follows:

Required Capacity:

10,230 gallons X 0.10^{a} = 1,023 gallons

Capacity Available:

(46.5 ft X 0.46ft X 21.5 ft) X 7.48 gal/ft^3 = 3,440 gallons

Volume Displacement of Ramp:

(5 ft X 0.46ft X 21.5 ft X 0.5) X 7.48 gal/ft^3 = 185 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 27 pallets X 7.48 gal/ft^3 = 539 gallons

Net Capacity Available:

3,440 gallons- 185 gallons- 539 gallons= 2,716 gallons

There are 2,716 gallons of secondary containment available which exceeds the required minimum containment capacity of 1,023 gallons.

Building 4 Containment Capacity

Building 4 can contain 48 pallets as shown on the storage area layout plan, Attachment A-2. Each pallet holds up to four, 55-gallon drums and pallets may be stacked a maximum of two tiers high.

This storage bay is permitted for a storage volume of 10,230 gallons. The secondary containment system must be capable of containing 10% of the total storage volume or 1,023 gallons.

The secondary containment capacity of Building 4 is as follows:

Required Capacity:

10,230 gallons X 0.10^{a} = 1,023 gallons

Capacity Available:

(58.83 ft X 0.437 ft X 57.66 ft) X 7.48 gal/ft^3 = 11,088 gallons

Volume Displacement of Ramp:

(3 ft X 0.437 ft X 15 ft X 0.5) X 7.48 gal/ft^3 = 74 gallons

Volume Displacement of Pallets:

2.67 ft^3/pallet[b] X 48 pallets X 7.48 gal/ft^3 = 958 gallons

Net Capacity Available:

11,088 gallons – 74 gallons – 958 gallons = 10,056 gallons

There are 10,056 gallons of secondary containment available which exceeds the required minimum containment capacity of 1,023 gallons.

Notes:
[a] Ten-percent of the aggregate permitted capacity of the storage area or bay
[b] Pallet volume displacement

D.l.a.3.d Control of Run-On
[40 CFR 270.15(a)(4), 264.175(b)(4)], [6 NYCRR 373-l.5(b)(1)(iv), 373-2.9(f)(1)(iv)]

The hazardous waste storage areas are located inside a warehouse and run on and precipitation are prevented from entering the storage areas by the roof and walls of the building.

D.1.b Containers Without Free Liquids
[6 NYCRR 373-1.5(b)(2), 373-2.9(f), (2) & (3)]

All hazardous waste containers stored at the facility are handled as though they may contain free liquids. These containers are stored in the hazardous waste storage area which is designed for containers with free liquids.

D.2 CONTROL OF AIR EMISSIONS FROM CONTAINERS [6 NYCRR 373-2.29(g)]

The facility stores waste containers which are in light and non-light material service and, therefore, need to meet Level 1 and Level 2 control. The containers which are used for a particular waste must meet USDOT requirements for the appropriate hazard. Facility personnel responsible for shipping and receiving hazardous waste containers are trained to inspect the containers to ensure compliance. At the time of pick-up, the driver will visually inspect all containers to be picked up to verify that all containers are intact. Trailers arriving at the Binghamton facility with hazardous waste containers for storage will be unloaded onto a loading dock. Facility personnel visually inspect the containers to ensure they are properly labeled and intact prior to moving them to the hazardous waste storage area. Waste containers are always kept closed when in storage. The hazardous waste storage area is inspected daily to ensure that containers are stored in a manner to prevent ruptures and leaks. See section D.4 for specific control requirements.

D. 3 REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTES AND INCOMPATIBLE WASTES

The ignitable and reactive waste storage areas meet local codes for the storage of ignitable materials. Fire protection is provided with portable fire extinguishers and a sprinkler system. The ignitable waste storage area is located more than 50 feet from the property line in accordance with State and Federal Regulations for the storage of ignitable hazardous wastes.

All reactive wastes in bulk, except cyanides and sulfides, can only be stored at the facility as double overpacked lab packs. Other reactive wastes, e.g. water reactives, oxidizers, organic peroxides and other temperature-sensitive wastes are stored as double overpacked lab packs in temperature controlled Bay A. No Class 1 organic peroxides will be accepted at the facility for storage

Ignitable can be stored at this facility in temperature controlled Bays A, B, C, D and or G, as identified in Table C-1.1. Any storage limitations are identified in the footnotes under Table C-1.1.

A fire suppression system installed in accordance with the New York State Fire Code and approved by the Fire Department is provided for Bays A, B, C, D, E and G, and Building 4. Only forklifts conforming to Types DY, EE or EX specified in NFPA 505-4.2.3.1 and OSHA 1910.178(c)(2)(iv) will be used for handling ignitable and reactive wastes.

Incompatible wastes are placed within separate storage areas. Storage bays are dedicated for the storage of certain waste types. The six storage bays, and Building 4, are provided with secondary containment to keep potential spills within the area.

The principal source of incompatibility is between spent corrosives and the materials with which they may react. In the corrosive waste storage areas Bay E and Building 4, acids will be stored in the Northern Row and alkalis will be stored in the Southern Row separated by a distance of 8 feet.

As described in Attachment I, prior to shipment to the Binghamton facility, each customer must label each container of waste with the WPS number in addition to the information required by hazardous waste regulations. The WPS number on each container, the WPS data which has been provided by the customer and confirmed by the disposal firm, and the waste shipment identification on the hazardous waste manifest are adequate information for the segregation of incompatible waste streams. The wastes will be segregated according to standard USDOT compatibility categories. Unmarked or unknown wastes are not accepted by the permittee. Guidance for ensuring compatibility of packed waste is obtained from several sources. The permittee maintains a copy of the USD–T - Hazardous Materials Table 49 CPR 172.101. This table lists requirements for handling, packing, transporting and storing materials by USDOT hazard classification. The wastes are segregated and stored at the Binghamton facility in accordance with USDOT Table 49 CPR 177.8“8 "Segregation and Separation Chart of Hazardous Material" and as per the EPA document, "A Method for Determining the Compatibility of Hazardous Wastes (EPA-600/2-80-07”)." Additionally, the permittee uses Material Safety Data Sheets (MSDS) as a supplemental source of information on chemical/physical properties and hazards.

D.4 AIR EMISSION STANDARDS FOR CONTAINERS

Provided in Attachment X.

D.5 LOADING/UNLOADING AND STAGING

The loading/unloading and drum staging area and the truck staging areas are shown in Attachment A-2. The truck staging area is an 8-inch-thick asphalt pad coated with an impervious seal. The wastes are transferred directly from the truck into the drum unloading/loading and staging area located inside the building by forklift or hand pallet trucks. The permittee transports the wastes in its own transport vehicles. These vehicles are equipped with a secondary containment system designed to capture wastes, if any, released into the storage compartment of the vehicle. Before the waste drums are transferred from the truck into the building, they are inspected by the permittee’s trained personnel to ensure that the lids are properly secured and the containers are structurally sound. The loading/unloading and hazardous waste container storage areas are coated with an impervious coating and inspected daily for cracks, coating damage, erosion, wet spots etc., as specified in the inspection schedule in Attachment II.

On Mondays, Tuesdays, Wednesdays and Thursdays, the containers from the trucks will be unloaded into the building within 16 hours of arrival at the facility. Vehicles arriving after work hours on Fridays or holidays will be off-loaded before 12 noon of the next working day. Vehicle holding containers of waste will be staged at the facility in the truck staging area shown in Attachment A-2.

The loading/unloading and drum staging area and the truck staging areas are shown in Attachment A-2. The truck staging area is an 8-inch-thick asphalt pad coated with an impervious seal. The wastes are transferred directly from the truck into the drum unloading/loading and staging area located inside the building by forklift or hand pallet trucks. The permittee transports the wastes in its own transport vehicles.

These vehicles are equipped with a secondary containment system designed to capture wastes, if any, released into the storage compartment of the vehicle. Before the waste drums are transferred from the truck into the building, they are inspected by the permittee's trained personnel to ensure that the lids are properly secured and the containers are structurally sound. The loading/unloading and hazardous waste container storage areas are coated with an impervious coating and inspected daily for cracks, coating damage, erosion, wet spots etc., as specified in the inspection schedule in Table F-1 of Appendix C.

Section B
FACILITY DESCRIPTION

B.1 GENERAL DESCRIPTION
[40 CFR 270.14(b)(1), 6 NYCRR 373-1.51(a)(2)(i)]

The Nexeo Solutions, LLC (Nexeo) facility is located at 3 Broad Street, Binghamton, Broome County, New York. The total facility size is 2.362 acres.

The street address of the facility is:

Univar Solutions USA Inc.
3 Broad Street
Binghamton, NY 13902

The mailing address of the facility is:

Univar Solutions USA Inc.
P.0. Box 1300
Binghamton, NY 13904

The latitude and longitude of the facility are:

Latitude: 42º 07’ 11”N
Longitude: 75º 53’ 28” W

The facility is owned by Nexeo. A copy of the property deed and legal description of the site is included in Attachment B-1.

The facility is located in an area which is zoned as general industrial and as such is compatible with the land use in the area. The properties immediately adjacent to the facility area include the Delaware and Hudson railroad tracks to the west, Bevier Street to the south, Broad Street to the east, and the Binghamton Public Works Department site to the north.

The facility once served as a solvent and chemical distribution site. These operations are no longer performed. The facility is a storage site for customer generated hazardous waste. Customers are general industrial companies including: coatings, inks, printing, adhesive, and metal working, and general manufacturing companies.

Off-site generated hazardous wastes are transported from generator location to the Nexeo facility in containers which meet U.S. Department of Transportation (DOT) requirements. Incoming containers are placed on pallets and stored in the designated hazardous waste storage area. Containers are kept closed. The facility does not commingle wastes. Hazardous wastes are stored until a sufficient quantity is accumulated for shipment to an authorized recycling, treatment, or disposal facility.

The types of hazardous waste codes that may be stored at the facility are listed in Section A of this permit application. The waste characteristics of the permitted wastes are described in detail in Table C-1 of this permit application. The facility is currently permitted to store 53,130 gallons of hazardous waste.

B.2 TOPOGRAPHIC MAPS

B.2.a General Requirements
[40 CFR 270.14(b)(19), 6 NYCRR 373-l.5(a)(2)(xix)]

The following maps, drawings, and pictures are included as Attachments to this section.

- Attachment B-2 – Environmental Plan (scale: 1 inch equals 40 feet) showing hazardous waste storage areas, facility surface water flow, and legal boundaries of the facility.
- Attachment B-3 – A Flood Insurance Rate Map for Binghamton which indicates that the facility is located outside of the 100 year floodplain.
- Attachment B-4 – A wind rose for Binghamton, NY.

B.2.b Additional Requirements for Land Disposal Facilities
[40 CFR 270.14(c)(3) and (4)(I), 264.95, 264.97]

The facility is not a land disposal facility.

B.3 LOCATION INFORMATION
[40 CFR 270.14(b)(11)]

B.3.a Seismic Requirements
[40 CFR 270.14(b)(11)(i) and (ii), 264.18(a), Part 264 Appendix VI]

The site is not subject to a seismic standard because the facility is not a ‘new’ facility and it is not located in a jurisdiction identified in Part 264, Appendix VI.

B.3.b Floodplain Requirements
[40 CFR 270.14(b)(11)(iii), 264.18(b), 6 NYCRR 373-l.5(a)(2)(xi)]

The facility is not located in a 100 year flood zone.

B.4 TRAFFIC PATTERNS
[40 CFR 270.14(b)(10), 6 NYCRR 373-l.5(a)(2)(x)]

Truck traffic volume averages approximately 3 semi-trucks per day.

The facility has a truck entrance gate which is closed and locked when facility personnel are not

present. Access is limited to authorized vehicles. Warning signs are posted at the gate that state "Danger – Unauthorized Personnel Keep Out". The hazardous waste storage areas are located inside Building 1, Building 2, and Building 4.

Trucks transporting off-site waste to the facility unload containers on a loading dock. The drummed waste is placed on pallets and moved by forklift to the storage areas. Shipments of waste going out of the facility are moved on pallets by forklift to the loading dock and loaded into trucks.

The access street is Broad Street, an asphalt-paved street routinely used by transport trucks weighing 80,000 pounds (gross). Broad Street is maintained by the City of Binghamton. The facility's operations do not significantly increase traffic volume in the area.