ATTACHMENT E

No Modifications Proposed

ATTACHMENT F

Application Section F – Preparedness & Prevention

No modifications to the text of the plan are proposed with the exception of the Inspection Forms

PREPAREDNESS AND PREVENTION

This section is presented in fulfillment of the requirements of 6 NYCRR 373-1.5(a)(2)(iv) and (v), 373-2.2(f),(g), and (h), 373-2.3, and 373-2.4(b)(1). It addresses information concerning security systems and procedures, facility inspection plans and procedures, and the equipment, structures, and procedures utilized to minimize hazards at the CWM Chemical Services, LLC, Treatment, Storage, and Disposal Facility in Model City, New York.

1.0 SECURITY [6 NYCRR 373-1.5(a)(2)(iv) and (v)], [6 NYCRR 373-2.2(f)]

1.1 24-hour Surveillance System

The primary access to the facility is via the main entrance off Balmer Road. This entrance is used by plant employees, contractors, waste haulers, suppliers, salesmen, and visitors. The main entrance gate is monitored 24 hours a day by one or more security guards who stops all trucks or other vehicles entering and leaving the facility. The guardhouse is equipped with telephone and radio communications. All hazardous waste shipments are stopped at this checkpoint.

Prior to admittance to the facility, all visitors or drivers must provide information including name, business affiliation, reason for visit, person whom visiting, and date and time of entry and exit. All plant visitors, contractors, vendors, and other nonfacility personnel are recorded by the guard in the visitor logbook prior to entry. Unauthorized access to the facility is prevented by the security guard. In addition, the entrance/exit gates may be closed and locked, if necessary.

1.2 Barrier and Means to Control Entry [6 NYCRR 373-2.2(f)(2)(ii)(a) and (b)]

In addition to the 24-hour security surveillance at the main entrance to the facility, the entire Model City Facility is enclosed with wire chain link fencing to prevent accidental or unauthorized access to active portions of the facility. The Balmer Road gate is controlled by the security guard, as described above. The alternate plant entrance is located on Balmer Road across from Lutts Road. All gates in the perimeter fence with roadway access from public thoroughfares to the active portion of the facility, except the main gate, are kept securely locked at all times when not in use. Whenever any of these gates is opened, a CWM employee or a security officer is stationed at these gates to record the name, date, and time of persons entering or leaving the facility.

Upon entry to and exit from the facility, all vehicles are required to show identification (for facility personnel) or sign in/out with the security guard. Consequently, the security guard maintains a complete and accurate record of who is on-site at any particular point in time.

1.3 Warning Signs [6 NYCRR 373-2.2(f)(3)]

Warning signs bearing the legend "DANGER - Unauthorized Personnel Keep Out" are posted at the entrance to the facility and at intervals on the fencing surrounding the facility. Warning signs are clearly legible from a distance of 25 feet and can be seen from any approach to the facility. A large sign is present at the Balmer Road entrance to the facility which describes the minimum safety precautions which must be followed at all times on-site. Facility buildings are posted with "DANGER -- Unauthorized Personnel Keep Out" signs. Required signs are posted on all appropriate tankage. Other warning signs such as "No Smoking" signs and personal protective equipment requirements are posted throughout the facility in appropriate locations. Traffic control signs are also posted throughout the facility.

2.0 INSPECTION PLAN [6 NYCRR 373-1.5(a)(2)(v)], [6 NYCRR 373-2.2(g)]

2.1 Introduction

This inspection plan has been developed in accordance with the regulatory requirements set forth under 6 NYCRR 373-2.2(g) and is an integral part of the Part 373-2 Permit for the Model City facility. Implementation of the procedures set forth in this plan will ensure facility compliance with all requirements of 6 NYCRR 373-2.2(g). A copy of this plan will be maintained and be available at the facility at all times.

This inspection plan is intended to provide a mechanism to identify and prevent system malfunctions, equipment deterioration, and human errors which, if allowed to continue without correction or preventive action, may lead to a release of hazardous waste constituents to the environment or create a threat to human health. The performance of periodic and effective inspections is essential if such events are to be prevented. To this end, CWM has developed the following procedure for performing inspections so that substandard conditions and practices are identified, and appropriate actions are taken in a timely manner.

The inspection program is implemented by qualified individuals assigned the responsibility to detect any unsafe conditions at the facility and prevent adverse consequences. The designated individuals have the training and authority to: (1) implement the required inspections, (2) perform necessary evaluations and hazard assessments, and (3) recommend appropriate response actions. Inspections are performed according to pre-determined schedules based on engineering knowledge and operational experience with the systems and processes involved. Each inspection item has the content and frequency necessary to alert facility personnel prior to development of a serious problem. A trained inspector assesses each item noting any potential malfunction/deterioration of equipment or operator error through regular observation of the processes and procedures. The level of response and its timing is determined by the nature and seriousness of the problem identified -- with protection of personnel and the prevention of adverse environmental impact being of paramount concern.

2.2 Administration

The facility District Manager is responsible for the administration and implementation of this plan. The District Manager has the responsibility for ensuring that:

- Inspections are conducted per the schedule included on the inspection forms which are included as part of this plan.
- Inspection reports are properly documented and problem conditions are addressed and corrected.
- The program is updated as necessary to reflect changes in Federal and State regulations as well as changes in facility operations.

2.3 Inspection Schedule and Criteria

The inspection program for the facility includes the following types of inspections which are described in detail below.

- Environmental Compliance Inspections (ECI). (Daily/Weekly/Monthly)
- Environmental Monitoring Systems Inspections (EMSI). (Frequency Varies)
- Security Inspection (SI). (Quarterly)
- Surface Water Control Inspection (SWCI). (Monthly)
- Emergency Equipment Inspection (EEI). (Monthly)

2.3.1 Environmental Compliance Inspection (ECI)

The Environmental Compliance Inspection (ECI) is performed to meet the requirements of the applicable federal regulations and the analogous New York State regulations:

Federal regulations

- General Facility Inspection Requirements (40 CFR 264.15)
- Container Management Inspections (40 CFR 264.174)
- Tank System Inspections (40 CFR 264.195)
- Surface Impoundment Inspections (40 CFR 264.226)
- Landfill Inspections (40 CFR 264.303)

Analogous New York State regulations

- General Facility Inspection Requirements (6 NYCRR 373-2.2(g))
- Containers Management Inspections (6 NYCRR 373-2.9)
- Tank System Inspections (6 NYCRR 373-2.10)
- Surface Impoundment Inspections (6 NYCRR 373-2.11)

- Secure Landburial Facility Inspections (6 NYCRR 373-2.14)

The facility is broken up into the following areas for the purposes of performing routine inspections:

- Aqueous Wastewater Treatment Operations
- Drum Warehouse
- Transformer Decommissioning Area
- General Facility
- Landfill Leachate Systems
- Active Landfills
- PCB Warehouse
- Laboratories
- Stabilization
- Trailer Parking
- Closed Landfills
- Petroleum Tanks

The schedule for inspecting the individual components of each of these areas is indicated on the inspection forms. Some inspections are conducted daily, i.e., 365 days per year. Other inspections are required only on operating days, defined as days on which a given operation is processing (e.g., aqueous wastewater treatment, stabilization) or managing gate receipt wastes (e.g., landfill, trailer park, warehouses). In addition, inspections with weekly and monthly frequencies are also included in the program. Many of the areas listed above have common components for which standard inspection criteria apply, i.e., tanks, container management areas, and satellite accumulation areas. In these cases, they are included on the back of the form to avoid repetition. The inspection forms for the ECI are attached.

Inspections are performed by trained site personnel that may include site supervision, and/or the Environmental Compliance Inspector (Site Inspector), and/or a trained alternate Site Inspector.

2.3.2 Environmental Monitoring Systems Inspections

The EMSIs are performed to ensure proper operation of the environmental monitoring systems in use at the facility. The Environmental Monitoring Personnel perform regular inspections of environmental monitoring equipment as outlined below:

2.3.2.1 Meteorological Monitoring System (per QAPP)

Meteorological System components are inspected per the Quality Assurance Project Plan (QAPP) for the CWM Meteorological Monitoring Network. Typical inspection

items include the following instrumentation: wind speed, wind direction, sigma theta, temperature, dewpoint temperature, barometric pressure, precipitation gauge, chart recorder, and data logger.

2.3.2.2 Groundwater Monitoring Wells and Equipment (per sampling event)

Groundwater monitoring equipment is in good condition, including the following inspection items for all active groundwater monitoring wells: Well Wizard samplers, bailers, well casings, protective casings, protective barriers, concrete pads, and drainage.

2.3.2.3 Air Monitoring Equipment (per sampling event)

The air monitoring equipment is in good condition, including the following inspection items: air sampler, selective size inlet, filter holder housing, flow recorder, and timer.

2.3.2.4 Storm Water Flow Monitoring Equipment (Monthly)

The storm water flow monitoring flumes are operable, including the following inspection items: power supply, recorder, chart paper supply, flume condition.

2.3.3 Security Inspections (SI)

The Site Inspector performs a quarterly general facility security inspection. This inspection assesses the overall integrity and maintenance of the facility's security devices: perimeter fence, gates, locks, and warning signs.

2.3.4 Surface Water Control Inspection (SWCI)

The Site Inspector inspects the facility surface water control mechanisms monthly. The SWCI ensures that the run-off control systems for the facility are operating properly. Inspection criteria are as follows:

a. Discharge drainage ditches and culverts are free from major obstruction and blockage.
b. Adequate volume for containment of surface water prior to gates (visual observation).
c. Surface water retention area berms show no signs of instability, erosion, or integrity problems.
d. Concrete gates free of signs of deterioration or damage.
e. Gratings not buckling, corroding, deteriorating, or damaged.

f. Butterfly valves appear to seal properly.
g. Butterfly valves free from damage, deterioration, or corrosion.

2.3.5 Emergency Equipment Inspection (EEI)

The Emergency Coordinator (or his designee) will perform a monthly inspection of emergency response equipment maintained at the facility. These following items will be inspected to ensure that the equipment is available, accessible, and maintained:

a. Emergency Response Garage
   - Emergency Equipment Inventory per Contingency Plan
b. Emergency Response Van
   - Emergency Equipment Inventory per Contingency Plan
   - Response Van engine turned over to insure operation
c. Emergency Response Vehicle
   - Extinguishing system check for operability
   - Turn out gear accessible
   - SCBAs

2.4 Assess, Correct, Train (A.C.T.) Procedures

When an inspection indicates equipment malfunction or deterioration, or any other condition of concern, the following actions are taken as appropriate:

- Assess the situation.
- Determine the action needed in response to the situation, including immediate responses, if necessary.
- Establish the time frame within which the responses must occur. For minor discrepancies, the area supervisor is notified and the situation remedied as soon as possible. For remedies that require more time, an Environmental Work Order (EWO) is prepared. For emergency or near-emergency situations, prompt verbal reports shall be made to the Environmental or Safety Manager, to be followed later with written reports.
- Determine if training is required to prevent future reoccurrence and schedule any appropriate training.
- Follow up to verify that the situation has been resolved.

2.5 Environmental Work Order System

Environmental Work Orders (EWOs) are used to correct deficiencies that cannot be addressed by the end of the next business day (business days exclude weekends and holidays). The following is a description of how the EWO process works. An EWO can be initiated by any employee at the

Model City Facility using the EWO form. Part A of the form is usually completed by the Site Inspector who assigns a number to the EWO and enters it into the EWO tracking system. EWOs are typically issued by the end of the second business day after the deficiency is first noted. A copy of the EWO is then forwarded to the Operations Manager or other CWM employee with responsibility for the resources needed to respond to the EWO. This person completes Part B and C of the EWO form. When the work is completed, the Site Inspector is contacted to reinspect the area. If the deficiency has been resolved, the Site Inspector completes Part D. The completed EWO is filed in the Facility Operating Record.

The EWO tracking system maintained by the Site Inspector includes information regarding each current EWO, the responsible party, and the scheduled completion date. The Site Inspector periodically reviews the status of EWOs to ensure closure of each issue.

2.6 Recordkeeping Requirements

An inspection form is completed to document each required inspection. All substandard conditions identified during each inspection are noted on the inspection form, with a brief description of the item (if necessary) and a notation as to how the item has been resolved is included in the "Comments" column. For items which cannot be resolved by the end of the next business day, an Environmental Work Order (EWO) will be initiated.

Completed forms for all inspection areas are compiled and reviewed by the Site Inspector who ensures that all outstanding issues are addressed by an EWO or otherwise flagged for management review. The Site Inspector then attaches a Document Review Form to the completed package. The inspection package is then reviewed by the Technical Manager or designee and the Operations Manager or designee. Copies of all inspection packages as well as copies of completed EWOs and periodic EWO status reports, will be maintained with the facility operating record for a minimum period of 3 years.

2.7 Inspection Plan Updates

When significant changes in either the facility, operations, or equipment occur, the Operations Manager or designee will revise the inspection schedules and/or criteria contained in this plan. Any such revisions will require submission to NYSDEC as a modification to the site permit.

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

The purpose of this section is to describe the procedures, equipment and facility structures to prevent hazards in loading/unloading areas; to prevent contaminated run-off from processing areas to enter the environment; to prevent the contamination of surface and groundwater; to mitigate the

potential effects of equipment failure and power outages; and prevent undue exposure of personnel working within the facility from exposure to hazardous wastes.

3.1 Loading and Unloading Operations [6 NYCRR 373-1.5(a)(2)(viii)(a)]

The procedures for loading and unloading hazardous wastes in RMU-1 are described in the RMU-1 Engineering Report. Facilities have been designed to prevent hazards associated with the loading and unloading of hazardous wastes in connection with operation of RMU-1.

3.2 Run-on/Run-Off Control and Protection of Water Supplies
[6 NYCRR 373-1.5(a)(2)(viii)(b) and (c)]

In accordance with Section 6 NYCRR 373-1.5(a)(2)(viii)(b), a unit run-off collection system must be capable of controlling and collecting run-off to prevent it from reaching other areas of the facility or the environment and to prevent flooding. This will be achieved through a combination of impounding and pumping.

During construction of RMU-1 and before placement of wastes in the cell, surface water will be handled within the cell. The purpose of surface water control will be to manage flow from precipitation and to direct such water away from, or out of, the cell. Measures to achieve this purpose will involve sediment controls, such as silt fences and hay bales. The number and location of these will be determined by the progress of construction operations, in order to affect control at the perimeters of construction zones.

During operation of RMU-1, precipitation entering the cells will be collected in the leachate collection system and be handled and treated as leachate.

Water from the final cover system will be managed as surface water. Run-off will be collected in the site surface water drainage channel system. The existing site surface water drainage system consists of a series of drainage channels and basins controlled by ~~five~~ gate valves where samples of the collected run-off are taken. The quality of the storm water run-off is monitored according to the site Surface Water Monitoring Plan contained in the site Part 373 Permit.

The requirements of 6 NYCRR 373-2.9(f)(1)(iv) state that run-on be controlled, collected, and managed expeditiously after storms to maintain the design capacity of the system. In accordance with this requirement, RMU-1 is surrounded by a perimeter embankment of sufficient height (approximately 5 to 10 feet above the existing ground surface) to prevent run-on from reaching the unit. The run-on, thus diverted, will be collected with other site drainage in the site surface drainage channel system where it will be collected and managed as described above.

All run-on/run-off collected by the drainage and collection system is monitored, as required by the facility's SPDES Permit. As previously stated, run-off collected from active portions of the unit

will be transferred to and handled in the aqueous treatment process and run-off (and run-on) collected from other areas of the facility will be handled in accordance with site-wide drainage discharge procedures. Those procedures, summarized below, are defined in the Model City Surface Water Monitoring Plan.

Currently, the Surface Water Monitoring Plan covers most of the Model City site, discounting only a small portion of the southeastern most property that presently contains no hazardous waste management operations. This unmonitored area comprises that portion of the site drainage to Twelve Mile Creek. The monitored section of the site is part of the Six Mile Swale drainage basin.

In order to choose sampling locations (and sampling methods), which will yield samples representative of surface water run-off, it is important to consider the topography and drainage characteristics (as determined by soil types, cover, land use, and drainage control systems) of the site. In general, the Model City Facility site is extremely flat, sloping northward at less that 1 percent. Natural ground surface elevations range between approximately 310 and 320 feet above sea level.

Surface water on the Model City Facility property ultimately drains to one of two creeks which flow through the site. The major part of the property (western portion) drains to the north and west, discharging to Six Mile Swale. According to the New York State Stream Classifications, Six Mile Swale is a Class C stream. The best use of Class C waters is secondary contact recreation. Class C waters are suitable for the survival of fish, but due to the natural conditions, may not support their propagation. Six Mile Swale empties into Four Mile Creek approximately two miles from the northwestern boundary of the facility. Four Mile Creek flows north to Lake Ontario. A small part of the eastern portion of the site drains to Twelve Mile Creek. Twelve Mile Creek is Class C in the area of the Model City Facility property.

Twelve-Mile Creek and Six-Mile Swale are part of the Eighteen-Mile Creek Drainage Subbasin. This subbasin is a portion of the Lake Ontario Drainage Basin which includes the Eighteen-Mile Creek Subbasin and other tributaries of Lake Ontario entering the lake between the hamlet of Olcott and the mouth of the Niagara River. The basin drains an area of 233 square miles.

3.3 Air Monitoring Program

The Model City Facility has established an air monitoring program to assess the potential effects of the facility's emissions on the ambient air surrounding the site, particularly at locations where receptors may be exposed to this air. The air monitoring program is designed to establish average long-term emissions and trends.

The parameters of the Model City program have been selected to detect, identify and quantify matter which might be emitted into the atmosphere by the process and activities on-site. These parameters cover potential emissions from all site activities, and have historically included volatile

organic compound vapors, PM-10, semi-volatile organic vapors, including PCBs. The Ambient Air Monitoring Program is detailed in the Part 373 Permit.

3.4 Equipment Failure at Power Outages [6 NYCRR 373-1.5(a)(2)(viii)(d)]

In all operating areas of the site, the facility equipment is inspected and maintained routinely to minimize equipment failure. In addition, all operators are trained with respect to the appropriate response and corrective actions in the event of an equipment or power failure.

In the event of a power failure, emergency exit lighting will automatically be activated. All feed pumps will be shut-off and remain shut down until reactivated by the operators. As an added precaution in Class I, Division II, Group D Hazard Areas, all electrical equipment is explosion-proof. Water for fire fighting purposes is available and duplicate equipment capable of pumping this water is maintained at the site.

In the event of equipment failures, potentially hazardous situations will be prevented or controlled via the following mitigation measures:

- Waste handling areas are provided with secondary containment structures.
- Movement of containers is performed by forklifts and if necessary by hand truck.
- Manual shut-off valves and controls are provided for all processes and tanks.
- Pumps which fail can be taken out of service and replaced with another pump.

If there has been an equipment failure or power outage which has resulted in a fire, explosion, spill or release of hazardous waste or produces conditions which could result in such events, the procedures described for each type of event in the Contingency Plan will be implemented.

The following procedures have been developed for, and are to be implemented if power loss does result in an imminent release, spill, fire, or explosion:

- Immediately notify the Department Supervisor of the failure or outage;
- Summon the Emergency Coordinator;
- Either the Department Supervisor or the Emergency Coordinator will contact the Maintenance Manager. The Maintenance Manager will assess the cause of the failure or outage and initiate efforts to correct situation;
- If necessary, battery operated lights and two-way radios are available to personnel.

3.5 Required Equipment [6 NYCRR 373-2.3(d)]

3.5.1 Internal Communications and Alarms [6 NYCRR 373-2.3(c)(1) and 373-2.3(c)(2)]

Internal communications are provided to each building and process area in the facility by centrally located telephones. Key management personnel are equipped with individual cell phones to notify them of an emergency situation. In addition, two-way radios are available to personnel to maintain contact in the event of an emergency. Outside emergency services (police, fire, etc.) may be contacted by telephone.

The primary alarm notification of an emergency is the electric siren located on the 350,000-gallon water tank adjacent to the container storage building. This siren can be activated by the Security Officer at the main entrance to the facility. This siren, when activated, alerts facility personnel that an emergency situation exists.

3.5.2 Emergency Response Equipment [6 NYCRR 373-2.3(c)(3)]

Portable fire extinguishers are located in various marked locations within the facility. Emergency response equipment is detailed in the site Contingency Plan.

3.5.3 Water for Firefighting [6 NYCRR 373-2.3(c)(4)]

Water for firefighting within the facility is provided by:

- a series of fire hydrants located throughout the facility
- a 350,000 gallon fire water tank adjacent to the drum handling building

3.5.4 Testing and Maintenance of Emergency Equipment

All facility communications and alarm systems, fire protection equipment, spill control equipment, and decontamination equipment will be tested and maintained in accordance with the facility Inspection Plan to assure its proper operation in time of emergency.

3.6 Preventing Undue Exposure of Personnel to Hazardous Waste

Employees complete general training courses which ensure that they have the basic skills to protect themselves and their fellow employees, as well as instructions which address the specific needs of their jobs. This includes a personal protection course, which takes employees through the care, use, limitations, and decontamination of the respirators and protective clothing that are required for their job duties in order to supplement general training about basic personal protection techniques and clothing. If appropriate to their duties, employees also learn how to use eye-wash/chemical-safety showers and hearing protection.

4.0 PRECAUTIONS TO PREVENT IGNITION OR REACTION OF IGNITABLE, REACTIVE OR INCOMPATIBLE WASTES [6 NYCRR 373-1.5(a)(2)(ix) and 373-2.2(i)(1) and (3)]

4.1 Applicable Waste Streams and Storage Locations

CWM has instituted operating procedures and facility construction to prevent accidental, uncontrolled reactions which might result in:

- Generation of extreme pressure, fire, explosion or violent reaction;
- Production of uncontrolled toxic mists, fumes, dusts or gases which may impact human health or the environment;
- Production of uncontrolled flammable fumes or gases which may result in a fire or explosion; or
- Damages to the structural integrity of the facility; or
- Through other like means threaten human health or the environment.

Mandatory laboratory analyses (as defined in the facility Waste Analysis Plan) are used to determine the properties of waste materials so that ignitable, reactive or incompatible wastes are not improperly placed in the unit, preventing reaction.

RCRA regulated reactive and ignitable wastes are restricted from landfill disposal unless they are deactivated. These wastes will be managed by properly processing, stabilizing, or otherwise rendering nonreactive, before placement into the landfill so that the material no longer meets the definition of reactive under 6 NYCRR Part 371.3(d) and 40 CFR 261.21 and 261.23. In addition, incompatible waste materials will not be placed in the same landfill cell unless they have been treated so that they are compatible prior to placement. The analyses described in the Waste Analysis Plan are implemented to ensure compliance with these requirements. In general, potentially incompatible materials are placed in separate areas in the unit and separated by a buffer zone, preventing reaction.

4.2 General Procedures to Prevent Ignition of Ignitable/Reactive Wastes

To prevent the ignition of wastes from sources of ignition or reaction, such as open flames, smoking, cutting, welding, hot surfaces, and sparks (static, electrical, or mechanical), operating procedures are strictly enforced for proper hot work and tool safety. Training in these procedures is provided for all employees who may be involved in such work.

"No Smoking" signs are conspicuously posted throughout the facility. These rules are strictly enforced. Any employee violating this rule is subject to termination.

As discussed in the facility Waste Analysis Plan, the wastes are characterized upon receipt, as well as through various handling processes to insure proper segregation and handling. The design of all hazardous waste units at the site provide for both physical barriers and area separation of the wastes based upon their characteristics. Ignitables are stored in separate areas from other wastes, such as cyanides and acids. Bulk waste storage tanks are also segregated and contained according to waste types.

Through the analysis, testing, and identification protocols identified in the Waste Analysis Plan, the mixing of wastes which would produce adverse chemical reactions is avoided. In the event that incompatibles are mixed during a spill condition, the Laboratory Manager or other site technical personnel shall provide assistance to operations personnel, as appropriate, to mitigate the potential adverse effects which may result from such an incident. A wide range of responses is possible based on the types of materials involved. Thus, response to such an incident will be consistent with activation of the Contingency Plan.

The following precautions are used for handling ignitable or reactive waste at the Model City Facility for:

- Prevention of sparking
- Separation and protection from sources of ignition
- Separation and protection from sources of reaction
- Prevention of spontaneous ignition

4.2.1 Prevention of Sparking

The use of drum handlers on forklifts minimizes the chances of ignition from friction, spark, puncture of a container, or frictional heat. Drums are opened with nonsparking tools and stored in designated storage areas.

4.2.2 Separation and Protection from Sources of Ignition

Drums will be stored in designated container storage areas with passive secondary containment systems. Ignitable wastes will be stored in designated areas which are clearly marked. Containers are protected from extreme heat, sunlight, and cold by an enclosed building. All electrical wiring, lighting, and motors in the waste management Class I areas are of industrial explosion-proof-grade, reducing the potential for sparking.

4.2.3 Separation and Protection from Sources of Reaction

Secondary containment is provided for all liquid hazardous waste management units. Any release of waste would, therefore, be fully contained and prevented from contacting incompatible waste.

4.2.4 Prevention of Spontaneous Ignition

All materials are handled and appropriately segregated to preclude entering into heat producing reactions with other materials. Additionally, ignitable wastes are stored away from sources of heat or sparks to prevent "spontaneous ignition."

4.3 Management of Ignitable, Reactive or Incompatible Wastes

Ignitable wastes are not accepted for direct land disposal at the Model City Facility. Incompatible wastes are not placed in the same cell unless they are first treated to eliminate the basis of their incompatibility or separated by a buffer zone.

RCRA regulated reactive and ignitable wastes are restricted from landfill disposal unless they are deactivated. These wastes will be managed by properly processing, stabilizing, or otherwise rendering nonreactive, before placement into the landfill so that the material no longer meets the definition of reactive under 6 NYCRR Part 371.3(d) and 40 CFR 261.21 and 261.23.

4.4 Other Measures Employed to Minimize Hazards Associated with Ignitable, Reactive, and Incompatible Wastes

4.4.1 Waste Analysis Plan

Waste analysis procedures include: (1) a pre-receipt requirement that the generator clearly defines the waste to be shipped to the facility, (2) a receipt inspection analysis to confirm that the material is as specified by the generator, and (3) laboratory analyses to determine the significant parameters of wastes to be bulked, or in any way combined, to assure that only similar and totally compatible wastes are combined.

4.4.2 Inspections

A rigid inspection schedule is followed to assure that the security, emergency, and operating equipment are in good order.

4.4.3 Training

Great care is taken to select only employees who are capable of performing the required tasks and properly training these employees. The importance of properly handling ignitable wastes is stressed in the training process.

4.4.4 Contingency Plan

The Contingency Plan specifically discusses the possibility of fire, reactions, and mixing of incompatible wastes. The Emergency Coordinator has been made aware of the importance of these factors in any emergency situation. Methods of prevention, as well as action to be taken in the event of an emergency, are detailed in the Contingency Plan. Possible alternative actions which minimize the possibility and/or occurrence or such events have been discussed and considered.

ATTACHMENT F

Inspection Forms

(proposed modified pages are designated with a December 2013 revision date at the bottom of the respective page)

NOTE: Operating days are days on which a given operation is processing (e.g., aqueous treatment, stabilization) or managing gate receipt waste (e.g., landfill, trailer park, warehouses).

AQUEOUS TREATMENT OPERATIONS (Page 1 of 2)

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

I.	**AT Tanks (DAILY for Tank Criteria)**	**Accept./Unacc.**		**Comments**
A)	T-58 (Note Volume and conductivity of liquid in leak detector, if any)	[ ]	[ ]	_____
B)	T-210, T-220, T-230	[ ]	[ ]	_____
	T-310	[ ]	[ ]	_____
	T-320	[ ]	[ ]	_____
C)	T-1111, T-1112	[ ]	[ ]	_____
D)	T-100 **(Note volume and conductivity of liquid in leak detector, if any)**	[ ]	[ ]	_____
	T-125 **(Note volume and conductivity of liquid in leak detector, if any)**	[ ]	[ ]	_____
E)	T-3001, T-3002, T-3003	[ ]	[ ]	_____
	T-3009 **(Note volume and conductivity of liquid in leak detector, if any)**	[ ]	[ ]	_____
F)	T-1010, T-1020, Floor Sump.	[ ]	[ ]	_____
	Area outside Filter Press Building free of spills.	[ ]	[ ]	_____
	AT Building satellite accumulation criteria met.	[ ]	[ ]	_____
G)	T-710, T-810, T-820, T-830, T-840, T-850, T-1310	[ ]	[ ]	_____
H)	T-3010A, T-3010B, T-3010C, T-3010D (including Cartridge Filter Units)	[ ]	[ ]	_____
	T-3007, T-3008 (Carbon Adsorbers)	[ ]	[ ]	_____
	WT Building satellite accumulation criteria met.	[ ]	[ ]	_____
I)	T-3011, T-3012	[ ]	[ ]	_____
J)	T-52	[ ]	[ ]	_____

AQUEOUS TREATMENT OPERATIONS (Page 2 of 2)

Inspector Name/Title:_____

Signature:_____

Date:_____Time:_____am/pm

II. AT Loading Dock		**Accept./Unacc.**	**Comments**
A)	Container Management Criteria No.1-8 met **(WEEKLY)** (Note any container remediation activities).	**[ ] [ ]**	_____
B)	Loading/Unloading areas free of spills. **(DAILY on operating days)**	**[ ] [ ]**	_____

III. Other Aqueous Treatment Facility compliance-related issues as appropriate. _____

AQUEOUS TREATMENT INSPECTION CRITERIA

TANKS

1. Above ground tank exterior and containment area free of signs of leakage, including discoloration that may be a residue of a prior release. Tank hatches are closed, except when adding or removing waste.
2. Above ground tank exterior free of signs of deterioration that could lead to potential leakage, including cracks, corrosion, weld defects, unsatisfactory condition of rivets, and obvious deformation.
3. Above ground tank ancillary equipment (i.e. pumps, piping, valves, and flanges) free of signs of leakage.
4. Secondary containment and surrounding area shows no visible signs of leakage from containment.
5. Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.
6. Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or a thaw.
7. No evidence of overflow. Overfill controls, e.g., level indicators, high level alarms, are operable. Pressure and temperature being monitored where applicable.
8. Liquids not present in leak detection systems (visual or electronic indication); electronic leak detection systems operable. If liquid is found in the leak detection systems under tanks, it will be sampled and analyzed for conductivity. A conductivity value less than 5000 umhos will be considered to be condensation. Results greater than this value will trigger an evaluation to determine if the tank is leaking.

CONTAINER MANAGEMENT

1. No signs of spillage or leakage from containers and no signs of swelling/bulging or excessive deterioration.
2. Waste containers are securely closed except when adding or removing waste.
3. Secondary containment and surrounding area shows no visible evidence of leakage from containment.
4. Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.
5. Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or a thaw.
6. Containers marked with all required labels and dates.
7. Containers properly stored with respect to compatibility.
8. Aisle space maintained as appropriate to allow unobstructed movement of personnel and emergency equipment.

SATELLITE ACCUMULATION AREAS

1. Not more than one 55 gallon drum in each operating area for greater than three days.
2. Containers not leaking and covers are secured.
3. Containers marked with all required labels/dates.

DRUM WAREHOUSE

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

I.	**Drum Warehouse and Dock (DAILY on operating days, except as noted)**	**Accept./Unacc.**		**Comments**
A)	Sampling areas free of spills.	**[ ]**	**[ ]**	_____
B)	Fuels transfer area:			
1.	Pumps, piping, valves & flanges free of signs of leakage.	**[ ]**	**[ ]**	_____
2.	Loading/unloading areas free of spills.	**[ ]**	**[ ]**	_____
3.	Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or thaw.	**[ ]**	**[ ]**	_____
C)	Container Management criteria:			
1.	No signs of spillage or leakage from containers and no signs of swelling/ bulging or excessive deterioration. (Note any container remediation activities, i.e., response to leaks, overpacked drums, etc.)	**[ ]**	**[ ]**	_____
2.	Waste containers securely closed except when adding or removing waste.	**[ ]**	**[ ]**	_____
3.	Containers properly stored according to compatibility.	**[ ]**	**[ ]**	_____
4.	Aisle space maintained as appropriate to allow unobstructed movement of personnel and emergency equipment.	**[ ]**	**[ ]**	_____
4.	Truck dock not holding pumpable liquids at the end of the next business day after a rainfall event or thaw.	**[ ]**	**[ ]**	_____
6.	Secondary containment and surrounding area (including loading/unloading area) shows no evidence of leakage from containment. **(WEEKLY)**	**[ ]**	**[ ]**	_____
7.	Secondary containment (including loading/unloading area) intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete. **(WEEKLY)[ ]**	**[ ]**		_____
8.	Drum inventory properly marked (labels and dates). **(WEEKLY)**	**[ ]**	**[ ]**	_____
II.	**Other Drum Warehouse compliance-related issues as appropriate.**			_____

TRANSFORMER DECOMMISSIONING AREA

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

I.	**PCB TRANSFORMER DECOMMISSIONING BUILDING**		**Accept/Unacc.**	**Comments**
A)	Loading/Unloading Area **(DAILY on operating days)**			
1.	Loading/unloading areas free of spills.	**[ ]**	**[ ]**	_____
2.	Fuels pumps, piping, valves and flanges free of signs of leakage.	**[ ]**	**[ ]**	_____
B)	Container Management **(WEEKLY)**			
1.	No signs of spillage or leakage from containers and no signs of swelling/bulging or excessive deterioration. (Note any container remediation activities, i.e. response to leaks, overpacked drums, etc.)	**[ ]**	**[ ]**	_____
2.	Waste containers and transformers are securely closed except when adding or removing waste.	**[ ]**	**[ ]**	_____
3.	Secondary containment and surrounding area (including loading/unloading area) shows no visible evidence of leakage from containment.	**[ ]**	**[ ]**	_____
4.	Secondary containment (including loading/unloading area) intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.	**[ ]**	**[ ]**	_____
5.	Satellite accumulation criteria met.	**[ ]**	**[ ]**	_____
6.	Containers marked with all required labels and dates.	**[ ]**	**[ ]**	_____
7.	Containers properly stored with respect to compatibility.	**[ ]**	**[ ]**	_____
8.	Aisle space maintained as appropriate to allow unobstructed movement of personnel and emergency equipment.	**[ ]**	**[ ]**	_____

II. Other Area compliance-related issues as appropriate. _____

Note: Refer to GENERAL FACILITY Section VI - Groundwater Extraction Systems Inspection Form for T-8009

TRANSFORMER DECOMMISSIONING AREA INSPECTION CRITERIA

SATELLITE ACCUMULATION

1. Not more than one 55 gallon drum in each operating area for greater than three days.

2. Containers not leaking and covers are secured.

3. Containers marked with all required labels/dates.

GENERAL FACILITY (Page 1 of 2)

Inspector Name/Title:_____

Signature:_____

Date:_____

		Accept./Unacc.		Comments
I.	**Active Surface Impoundments (DAILY for Active Criteria)**			**Time:_____am/pm**
A)	Fac Pond #1/2	**[ ]**	**[ ]**	
B)	Fac Pond #3	**[ ]**	**[ ]**	
C)	Fac Pond #8	**[ ]**	**[ ]**	
D)	Fac Pond #5 (upon construction) Note: Refer to Fac Ponds Transfer Systems	**[ ]**	**[ ]**	
II.	**Inactive Surface Impoundments (DAILY for Inactive Criteria)**			
	None			
III.	**Bulk Sampling Stations (DAILY on operating days)**			**Time:_____am/pm**
A)	Sampling areas free of spills.	**[ ]**	**[ ]**	
IV.	**Retarp Area (DAILY on operating days)**			**Time:_____am/pm**
A)	Area free of spills.	**[ ]**	**[ ]**	
B)	"30 day Accumulation" container:			
1.	Container not leaking and cover is closed except when adding waste.	**[ ]**	**[ ]**	
2.	Container marked with all required labels/dates.	**[ ]**	**[ ]**	

GENERAL FACILITY (Page 2 of 2)

Inspector Name/Title:_____

Signature:_____

Date:_____

		Accept./Unacc.		Comments
V.	**Truck Wash (DAILY on operating days)**			**Time:_____am/pm**
A)	Truck wash containment building (Tank Criteria Nos. 4 & 5)	**[ ]**	**[ ]**	_____
B)	Truck wash water collection:			
	1. T-120 meets Tank criteria	**[ ]**	**[ ]**	_____
	2. Truck Wash sump meets Tank criteria	**[ ]**	**[ ]**	_____
VI.	**Groundwater Extraction Systems (DAILY for Tank Criteria on operating days from April 16 to October 31: Year round for T-8009)**			**Time:_____am/pm**
A)	West Drum Area T-8001 & T-8002	**[ ]**	**[ ]**	_____
B)	Area south of SLF 3 T-8004	**[ ]**	**[ ]**	_____
C)	BW02S system T-8005	**[ ]**	**[ ]**	_____
D)	P1202S system T-8006	**[ ]**	**[ ]**	_____
E)	PCB Warehouse T-8007	**[ ]**	**[ ]**	_____
F)	Process Area DNAPL T-8008	**[ ]**	**[ ]**	_____
G)	Process Area (IV) T-8009	**[ ]**	**[ ]**	_____
H)	Process Area (III) T-8010	**[ ]**	**[ ]**	_____
VII.	**Other General Facility compliance-related issues as appropriate.**			_____

GENERAL FACILITY INSPECTION CRITERIA

TANKS

1. Above ground tank exterior and containment area free of signs of leakage, including discoloration that may be a residue of a prior release.
2. Above ground tank exterior free of signs of deterioration that could lead to potential leakage, including cracks, corrosion, weld defects, unsatisfactory condition of rivets, and obvious deformation.
3. Above ground tank ancillary equipment (i.e. pumps, piping, valves, and flanges) free of signs of leakage.
4. Secondary containment and surrounding area shows no visible signs of leakage from containment.
5. Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.
6. Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or thaw.
7. No evidence of overflow. Overfill controls, e.g., level indicators, high level alarms, are operable. Pressure and temperature being monitored where applicable.
8. Liquids not present in leak detection systems (visual or electronic indication); electronic leak detection systems operable.

ACTIVE SURFACE IMPOUNDMENTS

1. Measurement device is present and operable.
2. Outage in the impoundment, indication whether or not two feet of freeboard is present, and time recorded on the Surface Impoundment Level Form.
3. No sudden drop in level of contents not associated with pumping.
4. No signs of severe erosion, deterioration, or instability of dikes.

INACTIVE SURFACE IMPOUNDMENTS

1. Liquid levels in covered impoundments not greater than one foot for more than 3 days; or 3 weeks after the spring thaw.
2. Visual inspection of security of cover, where present.

LANDFILL LEACHATE SYSTEMS (DAILY on operating days except as noted)
(page 1 of 3)

Inspector Name/Title:_____

Signature:_____

Date:_____

I.	**Leachate Collection Systems**	**Accept./Unacc.**		**Comments**
A)	SLF 1-6			**Time:**_____**am/pm**
1.	T-105 and T-130, including loading/unloading area **(DAILY for Tank Criteria)**	**[ ]**	**[ ]**	_____
2.	Leachate Collection System Criteria **(DAILY)**	**[ ]**	**[ ]**	_____
3.	Loading/Unloading areas free of spills.	**[ ]**	**[ ]**	_____
4.	Satellite Accumulation criteria met.	**[ ]**	**[ ]**	_____
B)	SLF 7			**Time:**_____**am/pm**
1.	T-107 **(DAILY for Tank Criteria)**	**[ ]**	**[ ]**	_____
2.	Leachate Collection System Criteria **(DAILY)**	**[ ]**	**[ ]**	_____
3.	Satellite Accumulation criteria met.	**[ ]**	**[ ]**	_____
C)	SLF 10			**Time:**_____**am/pm**
1.	T-109 and T-110, including loading/unloading area **(DAILY for Tank Criteria)**	**[ ]**	**[ ]**	_____
2.	Leachate Collection System Criteria **(DAILY)**	**[ ]**	**[ ]**	_____
3.	Loading/Unloading areas free of spills.	**[ ]**	**[ ]**	_____
4.	Satellite Accumulation criteria met.	**[ ]**	**[ ]**	_____

LANDFILL LEACHATE SYSTEMS (Page 2 of 3)

Inspector Name/Title:_____

Signature:_____

Date:_____

I. Leachate Collection Systems (continued)

		Accept./Unacc.		Comments
D)	SLF 11			**Time:_____am/pm**
1.	T-108 and T-111, including loading/unloading area **(DAILY for Tank Criteria)**	**[ ]**	**[ ]**	_____
2.	Leachate Collection System Criteria **(DAILY)**	**[ ]**	**[ ]**	_____
3.	Loading/Unloading areas free of spills.	**[ ]**	**[ ]**	_____
4.	Satellite Accumulation criteria met.	**[ ]**	**[ ]**	_____
E)	SLF 12 Lift Station/Leachate Collection			**Time:_____am/pm**
1.	T-150 **(DAILY for Tank Criteria)**	**[ ]**	**[ ]**	_____
2.	Overhead Transfer Piping **(DAILY for Tank Criteria, as applicable)**	**[ ]**	**[ ]**	_____
3.	No leak detection alarms for SLF-12 Leachate lines **(DAILY)**	**[ ]**	**[ ]**	_____
4.	Leachate Collection System Criteria **(DAILY)**	**[ ]**	**[ ]**	_____
5.	Loading/Unloading area free of spills.	**[ ]**	**[ ]**	_____
F)	RMU-1 Lift Station			**Time:_____am/pm**
1.	T-160 & T-165 **(DAILY for Tank Criteria)**	**[ ]**	**[ ]**	_____
2.	No leak detection alarms for RMU-1 Leachate lines. **(DAILY)**	**[ ]**	**[ ]**	_____
3.	Leachate Collection System Criteria **(DAILY)**	**[ ]**	**[ ]**	_____

LANDFILL LEACHATE SYSTEMS (Page 3 of 3)

Inspector Name/Title:_____

Signature:_____

Date:_____

		Accept.	Unacc.	Comments
II.	**Oil/Water Separators**			
A)	SLF 1-11 oil/water separator			**Time:**_____**am/pm**
1.	T-158 and T-159, including loading/unloading area (Tank Criteria)	[ ]	[ ]	_____
2.	Loading/unloading areas free of spills	[ ]	[ ]	_____
B)	RMU-1 oil/water separator			**Time:**_____**am/pm**
1.	Above Ground Transfer Piping **(DAILY for Tank Criteria, as applicable)**	[ ]	[ ]	_____
2.	Loading/unloading areas free of spills	[ ]	[ ]	_____
III.	**Leachate Tank Farm**			**Time:**_____**am/pm**
A.	T-101, 102, 103, Frac Tank (Tank Criteria) **(DAILY)**	[ ]	[ ]	_____
B)	No leak detection alarms for Leachate Transfer Lines from Leachate Tank Farm to A/T.	[ ]	[ ]	_____
C)	Portable Filtration Vessel(s) (if present) (Container Management Criteria **WEEKLY**)	[ ]	[ ]	_____
D)	Satellite Accumulation Criteria Met.	[ ]	[ ]	_____
IV.	**Other Landfill Leachate Systems compliance related issues as appropriate.**			_____

FAC POND TRANSFER SYSTEMS (Page 1 of 1)

Inspector Name/Title:_____

Signature:_____

Date:_____

		Accept./Unacc.		Comments
I.	**Fac Pond 5**	**Time:_____am/pm**		
1.	T-9001 **(DAILY for Tank Criteria)** (Note Volume and conductivity of liquid in leak detector, if any)	**[ ]**	**[ ]**	_____
2.	No leak detection alarms for Fac Ponds Transfer lines. **(DAILY)**	**[ ]**	**[ ]**	_____
3.	No high level alarms on leak detection sumps **(DAILY)**	**[ ]**	**[ ]**	_____

LANDFILL LEACHATE SYSTEMS INSPECTION CRITERIA

LANDFILL LEACHATE COLLECTION SYSTEMS

1. No high level alarms on leachate sumps.
2. No primary leachate pumps out of service for more than 24 hours.

TANKS

1. Above ground tank exterior and containment area free of signs of leakage, including discoloration that may be a residue of a prior release.
2. Above ground tank exterior free of signs of deterioration that could lead to potential leakage, including cracks, corrosion, weld defects, unsatisfactory condition of rivets, and obvious deformation.
3. Above ground tank ancillary equipment (i.e. pumps, piping, valves, and flanges) free of signs of leakage.
4. Secondary containment and surrounding area shows no visible signs of leakage from containment.
5. Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.
6. Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or a thaw.
7. No evidence of overflow. Overfill controls, e.g., level indicators, high level alarms, are operable. Pressure and temperature being monitored where applicable.
8. Liquids not present in leak detection systems (visual or electronic indication); electronic leak detection systems operable.

CONTAINER MANAGEMENT

1. No signs of spillage or leakage from containers and no signs of swelling/bulging or excessive deterioration.
2. Waste containers are securely closed except when adding or removing waste.
3. Secondary containment and surrounding area shows no visible evidence of leakage from containment.
4. Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.
5. Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or a thaw.
6. Containers marked with all required labels and dates.
7. Containers properly stored with respect to compatibility.
8. Aisle space maintained as appropriate to allow unobstructed movement of personnel and emergency equipment.

SATELLITE ACCUMULATION AREAS

1. Not more than one 55 gallon drum in each operating area for greater than three days.
2. Containers not leaking and covers are secured.
3. Containers marked with all required labels/dates.

LANDFILL - RMU 1

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

I.	**RMU 1 (DAILY on operating days except as noted)**	**Accept./Unacc.**		**Comments**
A)	No ponded water greater than 12" deep for more than 7 days. **(DAILY) (If >12", note number of days since below 12")**	**[ ]**	**[ ]**	_____
B)	No rainwater contacting waste exiting the landfill.	**[ ]**	**[ ]**	_____
C)	No fugitive emissions of waste materials from landfill.	**[ ]**	**[ ]**	_____
D)	No fugitive dust evident on RMU berms.	**[ ]**	**[ ]**	_____
E)	Cover material provided on lift and face.	**[ ]**	**[ ]**	_____
F)	No spills or tracked waste on access roads or ramps.	**[ ]**	**[ ]**	_____
G)	No waste material evident through cover.	**[ ]**	**[ ]**	_____
H)	Each lift is one drum high, or a maximum of six feet in height.	**[ ]**	**[ ]**	_____
I)	All off loading occurs within perimeter run-off berm.	**[ ]**	**[ ]**	_____
J)	Equipment in contact with PCB material is properly labeled.	**[ ]**	**[ ]**	_____
K)	Vehicles in contact with PCB's/waste are decontaminated prior to exiting landfill.	**[ ]**	**[ ]**	_____
L)	Landfill perimeter fence is in good condition and all required signs are posted.	**[ ]**	**[ ]**	_____
M)	No visual evidence of acid sensitive and acid generating materials placed in same area within the landfill.	**[ ]**	**[ ]**	_____
N)	All leachate standpipes covered except when performing maintenance, sampling, and level measurements.	**[ ]**	**[ ]**	_____
O)	Satellite Accumulation Criteria met.	**[ ]**	**[ ]**	_____
P)	Stormwater run-off controls operating properly **(WEEKLY and after rainfall events >0.75" in 24 hours)**	**[ ]**	**[ ]**	_____

Note: Off loaded Macro Boxes shall be inspected for cracks and other defects after each box is offloaded. Any identified defects and repairs or box replacement shall be recorded in the facility's operating record.

II. Other Landfill/RMU-1 compliance related issues as appropriate. _____

LANDFILL - RMU 1

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

I.	**RMU 2 (DAILY on operating days except as noted)**	**Accept./Unacc.**		**Comments**
A)	No ponded water greater than 12" deep for more than 7 days. **(DAILY) (If >12", note number of days since below 12")**	**[ ]**	**[ ]**	_____
B)	No rainwater contacting waste exiting the landfill.	**[ ]**	**[ ]**	_____
C)	No fugitive emissions of waste materials from landfill.	**[ ]**	**[ ]**	_____
D)	No fugitive dust evident on RMU berms.	**[ ]**	**[ ]**	_____
E)	Cover material provided on lift and face.	**[ ]**	**[ ]**	_____
F)	No spills or tracked waste on access roads or ramps.	**[ ]**	**[ ]**	_____
G)	No waste material evident through cover.	**[ ]**	**[ ]**	_____
H)	Each lift is one drum high, or a maximum of six feet in height.	**[ ]**	**[ ]**	_____
I)	All off loading occurs within perimeter run-off berm.	**[ ]**	**[ ]**	_____
J)	Equipment in contact with PCB material is properly labeled.	**[ ]**	**[ ]**	_____
K)	Vehicles in contact with PCB's/waste are decontaminated prior to exiting landfill.	**[ ]**	**[ ]**	_____
L)	Landfill perimeter fence is in good condition and all required signs are posted.	**[ ]**	**[ ]**	_____
M)	No visual evidence of acid sensitive and acid generating materials placed in same area within the landfill.	**[ ]**	**[ ]**	_____
N)	All leachate standpipes covered except when performing maintenance, sampling, and level measurements.	**[ ]**	**[ ]**	_____
O)	Satellite Accumulation Criteria met.	**[ ]**	**[ ]**	_____
P)	Stormwater run-off controls operating properly **(WEEKLY and after rainfall events >0.75" in 24 hours)**	**[ ]**	**[ ]**	_____

Note: Off loaded Macro Boxes shall be inspected for cracks and other defects after each box is offloaded. Any identified defects and repairs or box replacement shall be recorded in the facility's operating record.

II. Other Landfill/RMU-2 compliance related issues as appropriate. _____

LANDFILL - RMU 2 (continued page 2 of 2

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

I.	**RMU 2 (YEARLY during operation)** (by Qualified Geotechnical Engineer)	**Accept./Unacc.**		**Comments**
MSE Berm Field Inspection Checklist				
A)	No visible evidence of Movement.	**[ ]**	**[ ]**	_____
B)	No visible evidence of erosion	**[ ]**	**[ ]**	_____
C)	Condition of Facing	**[ ]**	**[ ]**	_____
D)	Condition of overall batter (or slope inclination) of the berm face	**[ ]**	**[ ]**	_____
E)	No Seepage of Facing	**[ ]**	**[ ]**	_____
F)	Condition of Stormwater Structures	**[ ]**	**[ ]**	_____
G)	Condition of Access Road	**[ ]**	**[ ]**	_____
H)	Condition of Guide Rail/Fence	**[ ]**	**[ ]**	_____
F)	Evidence of Wildlife or Borrowing	**[ ]**	**[ ]**	_____
G)	Other	**[ ]**	**[ ]**	_____

LANDFILL MSE WALL INSPECTION CRITERIA

EVIDENCE OF MOVEMENT

1. No Visible defects in overall alignment
2. No Visible movement at top or the toe of slope
3. No evidence of Ponded water in ditches
4. No evidence of Vertical or horizontal movement on face
5. No Localized movement on face
6. No evidence of longitudinal cracking
7. No evidenced of transversal cracking
8. No evidence of wall profiles/ tilting or bulging

EROSION

1. No Significant erosion on face
2. No Significant erosion at top
3. No Significant erosion at toe
4. No Undermining due to erosion
5. No Appearance of wet or soft soils at toe

CONDITION OF FACING

1. No Deformed welded wire forms
2. No Exposed geosynthetics/ reinforcement
3. No Degradation of exposed geosynthetics
4. No Damaged, displaced, missing block facing
5. No Woody vegetation over 1-inch diameter
6. No Dead vegetation
7. No Signs of vandalism
8. No Signs of adjustments to stepbacks

CONDITION OF BATTER

1. No Bulging
2. No Evidence of overturning
3. No Evidence of shear deformation along reinforcement layers

SEEPAGE

1. No Seeps on facing
2. No Washed-out material at toe or facing
3. No Discoloration due to previous seepage
4. No Algae/ spots of vegetation on face

STORMWATER STRUCTURES

1. No Standing water in perimeter channel
2. Channel lined
3. No Sediment or debris in channel
4. No Evidence of channel overtopping
5. No Damage/ debris at stormwater pipes/ inlets
6. No Signs of erosion along channel

OTHER FEATURES (IF APPLICABLE)

1. Road conditions at top of berm
2. Condition of Poles on or adjacent to berm
3. Condition of Electrical conduits in berm
4. Condition of Guide rails on berm
5. Condition of Leachate vaults on berm
6. Condition of Downchutes
7. Condition of Stormwater outlets
8. No Invasive wildlife or burrowing
9. No Evidence of water overtopping berm

PCB WAREHOUSE

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

I.	**PCB Warehouse (WEEKLY, except as noted)**	**Accept./Unacc.**		**Comments**
A)	Container Management criteria:			
1.	No signs of spillage or leakage from containers and no signs of swelling/bulging or deterioration. (Note any container remediation activities, i.e., response to leaks, overpacked drums, etc.) **(DAILY on operating days)**	**[ ]**	**[ ]**	_____
2.	Waste containers securely closed except when adding or removing waste.	**[ ]**	**[ ]**	_____
3.	Containers properly stored according to compatibility.	**[ ]**	**[ ]**	_____
4.	Aisle space maintained as appropriate to allow unobstructed movement of personnel and emergency equipment.	**[ ]**	**[ ]**	_____
5.	Secondary containment and surrounding area shows no evidence of leakage from containment.	**[ ]**	**[ ]**	_____
6.	Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.	**[ ]**	**[ ]**	_____
7.	Drum inventory properly marked (labels and dates).	**[ ]**	**[ ]**	_____

II. Other PCB Warehouse compliance-related issues as appropriate. _____

SITE LABORATORIES (DAILY on operating days)

Inspector Name/Title:_____

Signature:_____

Date:_____

		Accept./Unacc.		Comments
				Time:_____am/pm
I.	**Main Laboratory**	**[ ]**	**[ ]**	_____
				Time:_____am/pm
II.	**AWT Laboratory**	**[ ]**	**[ ]**	_____
				Time:_____am/pm
III.	**Drum Building Laboratory**	**[ ]**	**[ ]**	_____
IV.	**Other Laboratory compliance-related issues as appropriate.**			_____

SITE LABORATORIES INSPECTION CRITERIA

SATELLITE ACCUMULATION AREA

1. Not more than one full 55 gallon drum in each operating area for greater than three days.
2. Containers not leaking and covers are secured.
3. Containers marked with all required labels/dates.
4. Daily use containers emptied at end of day.

STABILIZATION (Page 1 of 2)
(DAILY on operating days, except as noted)

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

		Accept./Unacc.		Comments
I.	**Reagent Silos and Process Water Tanks**			
A)	Truck unloading area free of spills.	**[ ]**	**[ ]**	_____
B)	TA-01, TA-02 (Tank Criteria)	**[ ]**	**[ ]**	_____
C)	Bin Vent Filters TA-04 (silo), TA-05 (silo) TA-06 (Day Bin) no visible releases to the air.	**[ ]**	**[ ]**	_____
II.	**Shredder Area**			
A)	Loading/unloading area free of spills.	**[ ]**	**[ ]**	_____
B)	Drum Shredder area meets Container Management Criteria. (**WEEKLY**)	**[ ]**	**[ ]**	_____
III.	**Waste Ash Unloading Area**			
A)	Loading/unloading area free of spills.	**[ ]**	**[ ]**	_____
B)	Container Management Criteria met. (**WEEKLY**)	**[ ]**	**[ ]**	_____
IV.	**Baghouses (BH-01, BH-02, BH-03)**			
A)	Containment Criteria:			
	1. No evidence of spills.	**[ ]**	**[ ]**	_____
	2. Containment is intact and free of cracks. (**WEEKLY**)	**[ ]**	**[ ]**	_____
B)	No visible releases to the air.	**[ ]**	**[ ]**	_____

STABILIZATION (Page 2 of 2)
(DAILY on operating days, except as noted)

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

		Accept./Unacc.		Comments
V.	**Northern Expansion**			
A)	Loading/unloading areas free of spills.	**[ ]**	**[ ]**	_____
B)	Mixing Pits (Pit Criteria)	**[ ]**	**[ ]**	_____
C)	Satellite Accumulation Criteria met	**[ ]**	**[ ]**	_____
VI.	**Special Client Room**			
A)	Container Management Criteria No. 1, 2, 6-8 met	**[ ]**	**[ ]**	_____
B)	Loading/unloading area free of spills	**[ ]**	**[ ]**	_____
VII.	**Roll-off box storage areas**			
A)	Container Management Criteria No. 1, 2 & 5-8 met (Note any container remediation activities, i.e., spill cleanup) **(DAILY when hazardous waste is being stored)**	**[ ]**	**[ ]**	_____
B)	Container management criteria 3 & 4 met (**WEEKLY**)	**[ ]**	**[ ]**	_____
C)	Containers properly tarped.	**[ ]**	**[ ]**	_____
D)	Not more than 48 Roll-offs. **(existing area)**	**[ ]**	**[ ]**	_____
E)	Not more than 37 Roll-offs (new area) (upon development of RMU-2)	**[ ]**	**[ ]**	_____
F.	4-ft Aisle space maintained between trailers of Flammable and combustible wastes .	**[ ]**	**[ ]**	_____
VIII.	**Macro Room**			
A)	Container Management Criteria No. 1, 2, 6-8 met	**[ ]**	**[ ]**	_____

Note: Loaded Macro Boxes shall be inspected for cracks a proper seal or other defects after each box is filled and covered. Any identified defects and repairs or box replacement shall be recorded in the facility's operating record.

IX. Other Stabilization compliance-related issues as appropriate. _____

STABILIZATION INSPECTION CRITERIA

TANKS

1. Above ground tank exterior and containment area free of signs of leakage, including discoloration that may be a residue of a prior release.
2. Above ground tank exterior free of signs of deterioration that could lead to potential leakage, including cracks, corrosion, weld defects, unsatisfactory condition of rivets, and obvious deformation.
3. Above ground tank ancillary equipment (i.e. pumps, piping, valves, and flanges) free of signs of leakage.
4. Secondary containment and surrounding area shows no visible signs of leakage from containment.
5. Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.
6. Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or a thaw.
7. No evidence of overflow. Overfill controls, e.g., level indicators, high level alarms, are operable. Pressure and temperature being monitored where applicable.
8. Liquids not present in leak detection systems (visual or electronic indication); electronic leak detection systems operable.

CONTAINER MANAGEMENT

1. No signs of spillage or leakage from containers and no signs of swelling/bulging or excessive deterioration.
2. Waste containers are securely closed except when adding or removing waste.
3. Secondary containment and surrounding area shows no visible evidence of leakage from containment.
4. Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.
5. Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or a thaw.
6. Containers marked with all required labels and dates.
7. Containers properly stored with respect to compatibility.
8. Aisle space maintained as appropriate to allow unobstructed movement of personnel and emergency equipment.

SATELLITE ACCUMULATION AREAS

1. Not more than one 55 gallon drum in each operating area for greater than three days.
2. Containers not leaking and covers are secured.
3. Containers marked with all required labels/dates.

PITS

1. Liquids not present in leak detection system. If liquid is found, it will be sampled and analyzed for conductivity and pH. It will be considered to be condensation if conductivity is less than 14,000 umhos, or volume is less than 5 gallons per day. Results greater than any of these values will trigger an evaluation to determine if the pit is leaking.
2. No signs of spillage in the area around the pit at the end of the operating day.

TRAILER PARKING AREA

Inspector Name/Title:_____

Signature:_____

Date:_____

	Trailer Park (DAILY on operating days, except as noted)	**Accept./Unacc.**		**Comments**
A)	Container Management:			
1.	No signs of spillage or leakage from containers and no signs of swelling/bulging or deterioration. Note any container remediation activities. **(DAILY)**	**[ ]**	**[ ]**	_____
2.	Secondary containment and surrounding areas shows no visible sign of leakage from containment. (**WEEKLY**)	**[ ]**	**[ ]**	_____
3.	Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete. (**WEEKLY**)	**[ ]**	**[ ]**	_____
4.	Secondary containment not holding pumpable liquids at the end of the next business day after a rainfall event or a thaw. **(DAILY)**	**[ ]**	**[ ]**	_____
5.	Containers marked with all required labels and dates and stored with compatible materials.	**[ ]**	**[ ]**	_____
6.	Aisle space maintained as appropriate to allow unobstructed movement of personnel and emergency equipment.	**[ ]**	**[ ]**	_____
7.	4-ft Aisle space maintained between trailers of Flammable and combustible wastes .	**[ ]**	**[ ]**	_____
B)	Containers properly tarped.	**[ ]**	**[ ]**	_____
C)	Less than or equal to 58 rolloffs or 48 rolloffs & 5 full trailers (existing area)	**[ ]**	**[ ]**	_____
D)	Less than or equal to 48 rolloffs or 38 rolloffs &5 full trailers (upon development of RMU-2)	**[ ]**	**[ ]**	_____
II.	**Other Trailer Park compliance related issues as appropriate.**			_____

CLOSED LANDFILLS AND SURFACE IMPOUNDMENTS **Inspector Name/Title:**_____

Signature:_____

Date:_____

I. Closed Landfills (QUARTERLY for Closed Criteria 1-4)
(only criteria No. 4 after rainfall >0.75" in 24 hours) **Quarterly [ ] After rainfall >0.75" in 24 hours [ ] Time:**_____**am/pm**

		Accept./Unacc.		**Comments**
A)	SLF 1-6	**[ ]**	**[ ]**	_____
B)	SLF 7	**[ ]**	**[ ]**	_____
C)	SLF 10	**[ ]**	**[ ]**	_____
D)	SLF 11	**[ ]**	**[ ]**	_____
E)	SLF 12	**[ ]**	**[ ]**	_____
F)	RMU-1	**[ ]**	**[ ]**	_____

II. Closed Surface Impoundments (ANNUALLY for Closed Criteria 1 and 4)
(only criteria No. 4 after rainfall >0.75" in 24 hours) **Annual [ ] After rainfall >0.75" in 24 hours [ ] Time:**_____**am/pm**

A)	Lagoons 1, 2, 5, 6 and 7	**[ ]**	**[ ]**	_____
B)	North Salts	**[ ]**	**[ ]**	_____
C)	East/West Salts	**[ ]**	**[ ]**	_____

CLOSED LANDFILLS AND SURFACE IMPOUNDMENTS CRITERIA

1. Cap has no apparent settling, subsidence, or erosion, which might endanger the integrity and effectiveness of the final cover.
2. No broken vent pipes.
3. All standpipes properly closed.
4. Stormwater run-off controls operating properly.

PETROLEUM TANKS
CWM Chemical Services, Inc.
1550 Balmer Road, Model City, NY 14107
Facility ID No. 9-073814

Inspector Name/Title:_____

Signature:_____

Date:_____**Time:**_____**am/pm**

I. Bulk Petroleum Storage Tanks (MONTHLY for Petroleum Tank Criteria)

		Accept./Unacc.		Comments
A)	T-20	[ ]	[ ]	_____
B)	E03, E04, E05	[ ]	[ ]	_____
C)	DF-1, LG-2, UG-1, G04	[ ]	[ ]	_____
D)	T-27	[ ]	[ ]	_____
E)	DF-3	[ ]	[ ]	_____

PETROLEUM STORAGE TANKS CRITERIA

1. Above ground tank exterior and containment area free of signs of leakage, including discoloration that may be a residue of a prior release. Tank hatches are closed, except when adding or removing waste.
2. Above ground tank exterior free of signs of deterioration that could lead to potential leakage, including cracks, corrosion, weld defects, unsatisfactory condition of rivets, and obvious deformation.
3. Above ground tank ancillary equipment (i.e. pumps, piping, valves, and flanges) free of signs of leakage.
4. Secondary containment and surrounding area shows no visible signs of leakage from containment.
5. Secondary containment intact and free of cracks exhibiting separation and coating (if present) is free of chips which expose the underlying concrete.
6. Precipitation removed from secondary containment in a timely manner.
7. No evidence of overflow. Overfill controls, e.g., level indicators, high level alarms, are operable. Pressure and temperature being monitored where applicable.
8. Loading/unloading areas free of spills. All petroleum spills are reportable to NYSDEC unless they are less than 5 gallons, contained on or within an impervious structure, under control, cleaned up within 2 hours of occurrence and have not entered onto or into soil, grass, groundwater or surface water.
9. This inspection has been performed in a manner consistent with the requirements of 6NYCRR 613.6.

ATTACHMENT G

Application Section G – Contingency Plan

(proposed modified pages are designated with a December 2013 revision date at the bottom of the respective page)

CONTINGENCY PLAN

FOR

CWM CHEMICAL SERVICES, LLC
MODEL CITY, NEW YORK

November 2013
Revised: December 2013

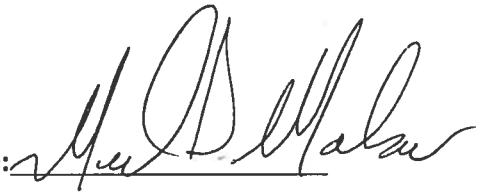
Modified: Dec. 2013

CERTIFICATE

RESOLVED that CWM Chemical Services, LLC (CWM), hereby grants to the individual(s) designated as "Emergency Coordinator" in the approved Contingency Plan for the CWM Model City Facility authority to commit such of the Corporation's resources as are needed to carry out such Contingency Plan.

Such individual(s) designated as "Emergency Coordinator" in such approved Contingency Plan is (are) hereby authorized, directed and empowered to execute and deliver for and on behalf of the Corporation any and all such contracts, agreements, documents and memoranda deemed to be necessary and appropriate to execute the herein authorized resolution.

Authorized Facility

Representative: Michael Mahar **Signature:** 

Title: District Manager **Date:** 11/8/13

CWM Chemical Services, LLC

TABLE OF CONTENTS

SPECIFIC FACILITY INFORMATION

CWM Chemical Services, LLC, is located in Model City, Niagara County, New York. Current facility operations include hazardous waste secure landfilling, container handling and storage, bulk storage, PCB handling, storage, and disposal, fuels bulking, aqueous waste treatment, and waste stabilization. This Contingency Plan applies to all active hazardous waste management areas at the site. Additionally, this Contingency Plan provides details of the Contingency Plan aspects affected by the development of Proposed Residuals Management Unit No. 2 (RMU-2). Facility information is summarized below.

Name:

CWM Chemical Services, LLC, a wholly-owned subsidiary of Waste Management, Inc.

Location:

Near Model City, New York, approximately 1.9 miles east of NYS Route 18 (Creek Road) at 1550 Balmer Road. The facility occupies land in the towns of Porter and Lewiston, New York.

All hazardous waste operations are located in the Town of Porter.

Size:

total area size is approximately: 710 acres
permitted hazardous waste area is about: 630 acres

Facility Operator Name and Mailing Address:

CWM Chemical Services, LLC
1550 Balmer Road
Model City, NY 14107
(716) 286-1550

Property Owner:

CWM Chemical Services, LLC
1550 Balmer Road
Model City, NY 14107
(716) 286-1550

District Manager (General Manager):

Mr. Michael Mahar
(716) 286-1550

IN CASE OF IMMINENT EMERGENCY SITUATION THAT MAY THREATEN HUMAN HEALTH OR ENVIRONMENT[6NYCRR PART 373-2.4 (C)]

If you think that an emergency is about to occur or has occurred which may threaten human health or the environment then:

- For fires, explosions or off-site releases of hazardous waste, the person observing the incident will immediately take action to activate the on-site emergency alert (two-minute siren) and notify the local fire company or department to respond, as well as notifying the Emergency Coordinator (or available Alternate) and personnel in the immediate area who may be in danger. The person reporting the incident shall give his or her name and location, and the nature and extent of the incident.

- For incidents involving on-site releases of greater than one (1) pound of hazardous waste from tank systems either beyond a secondary containment or within a secondary containment for tank systems with air emission controls, the person observing the incident will immediately notify the site security office (Ext. 0200 from a facility phone or (716) 286-0221 from offsite or a mobile device) as well as personnel in the immediate area who may be in danger, reporting his or her name and location, and the nature and extent of the release. The site security office will immediately notify the Emergency Coordinator (or Alternate) who will determine the appropriate response (see Section 3.0 for details on this determination). If directed by the Emergency Coordinator (or Alternate), the emergency alert (two- minute siren) will be activated to notify facility personnel of the incident.
- The Contingency Plan will be implemented for all fires, explosions, releases of hazardous waste to air, water or other media, as indicated by the above bullets, or any incident that threatens human health or the environment. Verbal notification will be provided to authorities as required (see Notification Action Summary Off-Site Notification Section). A written report must be submitted to the NYSDEC within 15 days.
- The appropriate procedures in this Contingency Plan will be used to address leaks and spills of one pound or less at any on-site location, or of greater than one pound within a secondary containment of a tank system without air emission controls. However, these leaks/spills will not entail full implementation of the Contingency Plan. The level of response appropriate for such incidents will be determined by the Emergency Coordinator (or Alternate). Examples of such minor leaks and spills include:

Modified: Dec 2013

- A drip coming from a container in a containment area whose capacity is 55 gallons or less
- A spill of 1 pound or less of waste from a container into a containment area which occurs during sampling or transfer
- Wastewater dripping from a pump, valve or transfer line into a containment area
- A spill/leak of 1 pound or less from a tank system
- A spill/leak of greater than 1 pound within a secondary containment of a tank system which is not required to have air emission controls

Each spill must be evaluated for reporting to appropriate authorities as indicated in this Plan.

RESPONSE TO GENERAL EMERGENCIES THAT WILL THREATEN HUMAN HEALTH OR THE ENVIRONMENT [6NYCRR PART 373-2.4 (C)]

Anyone discovering an emergency shall immediately notify site security at EXT. 0200 from a facility phone or (716) 286-0221 from offsite of mobile device as well as personnel in the immediate area who may be in danger. The site security office will immediately activate the emergency alert alarm and notify the Emergency Coordinator who will, if necessary, announce an evacuation of the area. The following general rules apply IN CASE OF EMERGENCY:

- Dial Extension 0200
- Identify yourself
- Give the area where the emergency is occurring
- Describe the nature of the emergency and what or who is needed
- Notify occupants in the building for help or evacuation
- Have someone stand by to direct emergency equipment to the scene
- Always call for help before extinguishing a fire
- Remember locations of nearest: Telephone, Exits, Emergency Showers and Fire Extinguishers
- Never endanger yourself while responding to an emergency

Modified: Dec 2013

RESPONSE TO FIRE, EXPLOSION AND RELEASE EMERGENCIES [6NYCRR PART 373-2.4 (C)]

Follow these general emergency procedures:

1. **Notify Security Guard (Ext. 0200 from a facility phone or (716) 286-0221 from offsite or mobile device), alert other personnel** in adjacent areas to hazards and inform the Supervisor by the quickest available means, e.g., by radio. (Note: Individuals should only attempt to handle fires or other emergencies in their beginning stages. Under no circumstances, however, should an individual attempt to handle it alone.)

2. **Render assistance**, if safe to do so, to persons that may be involved in the emergency and remove them from further exposure or injury.

3. **Don't enter oxygen deficient areas** or those with potential toxic vapors unless you have the proper respiratory protection.

4. The **Security Guard will contact the EC** and notify him of the emergency situation and initiate the alarm siren.

5. **Upon hearing the first alert emergency alarm**, plant personnel will remain at their work stations unless they are within the immediate emergency area. **Emergency Response personnel will immediately report to the Emergency Response Garage.**

6. **Upon hearing the second emergency alert alarm**, plant operations will stop (shutdown operations will be instituted as prescribed later in this Section). All personnel will exit the workplace by primary exit routes and assemble in the emergency assembly areas. Primary exit route signs are located in each building. The building evacuation routes are provided in Appendix A-2.

7. If necessary, the Emergency Coordinator will notify all personnel to **evacuate by prescribed routes**. (This notification will be by verbal command, or radio.)

8. **The Emergency Coordinator will assess the emergency situation** and initiate the return to the workplace when appropriate. NYSDEC approval is required to re-start operations after the full Contingency Plan is enacted - 6NYCRR 373-2.4(g)9.

Modified: Dec. 2013

NOTIFICATION ACTION SUMMARY ON-SITE NOTIFICATION [6NYCRR PART 373-2.4(G)(4)]

Report all emergencies to the Emergency Coordinator or specified alternate:

Emergency phone extension: 0200

Emergency Coordinator (EC)	**Home Phone No.**	**Home Address**
Timothy Fogarty Office (716) 286-0331	(716) 693-2826	351 Woodlin Avenue North Tonawanda, NY 14120
Jim Lis (First Alternate) Office (716) 286-0270	(716) 434-9492	4431 Lower Mountain Road Lockport, NY 14094
Steve Rydzyk (Second Alternate) Office (716) 286-0325	(716) 439-8911	3911 Coomer Road Newfane, NY 14108

The EC or designee will immediately notify the following facility managers:

	Home Phone No.	**Home Address**
Laboratory Manager Ami Lis Office (716) 286-0295	(716) 434-9492	4431 Lower Mountain Road Lockport, NY 14094
Technical Manager Jill Banaszak Office (716) 286-0246	(716) 773-1699	3474 East River Road Grand Island, NY 14072
District Manager Michael Mahar Office (716) 286-0241	(716) 751-3615	4220 East Lake Road Wilson, NY 14172

The EC or designee will notify other appropriate facility personnel as necessary, e.g., maintenance superintendent, operating supervisors, etc.

Emergency Response Team (ERT)

Charles Aube	(716) 791-8105	2573 New Road Ransomville, NY 14131
Angela Cadwalader	(716) 405-5020	5852 North Kline Road Lewiston, NY 14092
Edward Cassick	(716) 751-6771	3166 Randall Road Ransomville, NY 14131
Jeff Clark	(716) 791-8259	3546 Dickersonville Road Ransomville, NY 14131
Timothy Fogarty	(716) 693-2826	351 Woodlin Avenue North Tonawanda, NY 14120
Bruce Geschwender	(716) 731-4212	3022 Saunders Settlement Sanborn, NY 14132
Richard Harden	(716) 754-7645	4410 Creek Road Lewiston, NY 14092
Mark LaRue	(716) 745-7266	344 3rd Street Youngstown, NY 14174
Jim Lis	(716) 434-9492	4431 Lower Mountain Road Lockport, NY 14094
Howard Lyon	(716) 834-5206	622 Cornwall Avenue Tonawanda, NY 14150
Mark Mariani	(716) 751-0502	3761Youngstown-Wilson Wilson, NY 14172
Tim Morgan	(716) 751-9450	2579 Wilson-Cambria Road Wilson, NY 14172
Tim Napier	(716) 754-8825	4706 Porter Center Road Lewiston, NY 14092
Geoffrey Naughton	(716) 807-7384	4274 Sunset Drive Lockport, NY 14094
Chris Nicastro	(716) 564-3453	3314 Sweethome Road Amherst, NY 14228

Randy Printup	(716) 297-4540	4940 Indian Hill Road Lewiston, NY 14092
Steve Rydzyk	(716) 439-8911	3911 Coomer Road Newfane, NY 14108
Lori Sullivan	(716) 283-1353	147 60th Street Niagara Falls, NY 14304
Mark Zappy	(716) 751-3988	3862 Wilson-Cambria Road Ransomville, NY 14131

Casualty Control Officer (CCO)	Home Phone No.	Home Address
Timothy Fogarty (EMT D, Level 1)	(716) 693-2826	351 Woodlin Ave. N. Tonawanda, NY

CCOs are certified Emergency Medical Technicians/Defibrilation.

If casualties are involved, the CCO immediately notifies outside emergency help. These contacts include the appropriate local hospital/ambulance services and response groups indicated in the Contingency Plan.

Communication Coordinator (CC)	Home Phone No.	Home Address
To Be Designated by the EC		

Personnel Coordinators (PC)	Home Phone No.	Home Address
Andy Argona	(716) 284-1160	3603 Ferry Ave. Niagara Falls, NY
Lori Sullivan	(716) 283-1353	147 60th Street Niagara Falls, NY

Modified: Dec. 2013

NOTIFICATION ACTION SUMMARY OFF-SITE NOTIFICATION

When the incident has the potential to affect health or the environment off-site or release of a hazardous substance exceeds the CERCLA, SARA or NYS reportable quantity, the following Agencies will be called IMMEDIATELY :

1. National Response Center	**(800) 424-8802 (24 hrs.)**
2. NYSDEC Oil and Hazardous Materials Spill Hotline	**(800) 457-7362 (24 hrs.)**
3. NYSDEC On-Site Monitor	**(716) 286-0302**
4. Niagara County Health Dept.	**(716) 439-7444 or (716) 439-7430 After Work Hrs.**
5. Niagara County Local Emergency Planning Committee (LEPC) (S.A.R.A. Title III releases only)	**(716) 438-3171 or (716) 433-4482 After Work Hrs.**

When the incident has the potential to affect health or the environment off-site the following Agencies will be called IMMEDIATELY :

6. Lewiston Porter School R. Christopher Roser (Superintendent)	**(716)-754-8281**
7. Lew-Port Hotline	**(716)-754-7387**
8. Town of Porter - Town Hall Merton Wiepert (Supervisor) or Gail Zachary (Clerk) Merton Wiepert	 **(716)-745-3730 (daytime)** **(716)-791-4759 (nighttime)**
9. Town of Lewiston - Town Hall Steven L. Reiter (Supervisor) or Dennis Brochey (Supervisor after 12/31/13) Carol Brandon (Clerk) Lewiston Police	 **(716)-754-8213 (daytime)** **(716)-754-8477 or 911**

Note 1: Any release of hazardous waste to the environment from a tank system, including releases within a secondary containment from a tank system requiring air controls, must be reported to the DEC within 24 hours unless the spill or leak is less than or

Modified: Dec. 2013

equal to 1 pound (total) and was immediately cleaned up. A written report containing the items in 6 NYCRR 373-2.10 (g)(4)(iii) must be submitted within 30 days.

Note 2: If RQ spill occurs in secondary containment, #1, 2 and 4 above **DO NOT** need to be notified. For spills of >1 lb within a secondary containment of a tank system which does not require air controls, notify DEC no later than the next business day.

Note 3: If a spill of 10 lbs. of PCBs by weight or greater occurs, the EPA Regional Office, Pesticides and Toxic Substances Branch (908/906-6817) must also be notified.

Modified: Dec. 2013

ARRANGEMENTS WITH LOCAL AUTHORITIES AND OTHER RESOURCES [6 NYCRR 373-2.3(G), 373-2.4(C)(3) AND (D)(2)]

COORDINATION AGREEMENTS

AUTHORITY	RESPONSE	PHONE NUMBERS
Youngstown Volunteer Fire Department (primary responder)	All fires	911 or (716) 745-3324
Lewiston Fire Company No. 1	All fires	911 or (716) 754-2180
Upper Mountain Fire Company	All fires	911 or (716) 297-0330
Ransomville Fire Dept.	All fires	911 or (716) 791-4411
Mt. St. Mary's Hospital	Emergencies, injuries	(716) 297-4800
NY State Police (per their request)	Emergency traffic control	(716) 297-0755
Niagara County Fire Coordinator	All fires	(716) 438-3171
Niagara County Emergency Management Office	Emergency evacuation assistance	(716) 438-3176 or (716) 433-4482 After Work Hrs.
Sevenson Environmental Services, Inc.	Contract service	(716) 284-0431
Niagara Falls Memorial Medical Center	Emergencies, injuries	(716) 278-4000
Lewiston HazMat Group	Emergencies, Spills	(716) 754-8213

OTHER SOURCES OF ASSISTANCE ALSO AVAILABLE TO THE EMERGENCY COORDINATOR (OR HIS ALTERNATE)

LOCAL

Youngstown Ambulance Serv.	911 or (716) 745-3324
Lewiston Fire Company	911 or (716) 754-2180
Local Weather Information	(716) 540-1234
Poison Control Center	(800) 888-7655

COUNTY

Erie County Medical Center - Emergency Room	(716) 898-3161
Niagara County Sheriff's Dept.	(716)438-3393

STATE

New York State Police	
Lewiston	(716) 297-0755
Lockport, 6424 Ridge Rd.	(716) 434-5588
Region 9 Office of New York State Dept. of Environmental Conservation	(716) 851-7220

FEDERAL

National Response Center	(800) 424-8802
CHEMTREC Center Non-Emergency Services (operated by the Chemical Manufacturers Association-Health & Safety)	(800) 262-8200
US Coast Guard	(716) 843-9504
Federal Emergency Management Agency (FEMA)	(202) 566-1600

Local Cleanup Contractors

Sevenson Environmental Services	(716) 284-0431
Tri-C	(716)731-3400
Shaw Environmental	(716) 879-2537

Emergency Chemical Information

Chemtrec	(800) 424-9300
Niagara Falls Memorial Medical Center	(716) 278-4000

EVALUATION CRITERIA BY EMERGENCY COORDINATOR FOR IMPLEMENTATION OF CONTINGENCY PLAN

FIRE AND/OR EXPLOSION

- Fire will or has caused the release of toxic fumes or vapors.
- The fire has or could spread thereby possibly igniting materials in other locations on-site or off-site or could cause heat-induced leaks or explosions.
- The use of fire suppressants has or could result in contaminated runoff.
- Explosion has or could:
  - result in danger from flying fragments or shock waves;
  - ignite other hazardous waste at the facility;
  - release toxic materials.
- Fire does or will endanger human health or the environment for any other reason.

SPILLS OR MATERIAL RELEASE

- A spill has or could release toxic or flammable liquids or vapors, thus causing a fire or explosion hazard or health hazard.
- The spill has or could result in off-site or on-site soil contamination and/or ground or surface water contamination.
- A spill has occurred which constitutes a release of a "reportable quantity" of a hazardous substance under CERCLA, SARA or NYS regulations.
- A spill does or could endanger human health or the environment for any other reason.
  - A spill which could warrant evacuation from the site or for which off-site assistance is required for containment and control.
  - If the spill is minor and can quickly be brought under control, the full-scale Contingency Plan will not be implemented.

FOR ADDITIONAL EC RESPONSIBILITIES SEE SECTION 3

IMPLEMENTATION OF RESPONSE PROCEDURES BY EMERGENCY COORDINATOR [6NYCRR PART 373-2.4(G)]

The EC has been granted full corporate authority to expend all pertinent resources necessary to implement the Contingency Plan.

A. IN THE EVENT OF AN EMERGENCY, RESPONSE ACTIVITIES ARE INITIATED BY ACTIVATING INTERNAL FACILITY ALARMS OR COMMUNICATION SYSTEMS, as appropriate. The Emergency Coordinator (EC) will perform an assessment immediately.

B. THE FOLLOWING SITE PERSONNEL WILL BE NOTIFIED:
Technical Manager,
Laboratory Manager,
District Manager.

C. RESPONSE ACTIVITIES ARE DIRECTED AS APPROPRIATE and a decision is made whether or not to implement the Full Contingency Plan.

D. IF THE FULL CONTINGENCY PLAN IS IMPLEMENTED, THE EMERGENCY COORDINATOR WILL SET UP A COMMAND POST and take control of the affected area including any resources necessary until the emergency has been eliminated and necessary clean up or restoration is completed. The EC has been granted full corporate authority to expend all pertinent resources necessary to implement the Contingency Plan.

1.0 INTRODUCTION

Pursuant to New York State, RCRA, and TSCA requirements, CWM Chemical Services, LLC (CWM), maintains a Contingency Plan. According to 6NYCRR Part 373-2.4(b)(1) and (2), **"Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or nonsudden release of hazardous waste or hazardous waste constituents to air, soil or surface water. The provisions of the plan must be carried out immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents WHICH COULD THREATEN HUMAN HEALTH OR THE ENVIRONMENT."** (emphasis added) Similar federal regulation exists.

Practically, the provisions of the CWM Chemical Services, LLC Contingency Plan will be carried out whenever the facility's Emergency Coordinator, or an alternate, determines that an event could threaten human health or the environment.

According to 6NYCRR Part 373-2.4(d), "A copy of the contingency plan and all revisions to the plan must be:

(1) maintained at the facility; and

(2) submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services." **(see Attachment 1)**

A copy of the currently approved Contingency Plan is maintained by the Environmental Management Department at the Administrative Office, located at 1550 Balmer Road.

According to 6NYCRR Part 373-2.4(c), the contingency plan must describe the actions facility personnel must take to protect human health and environment. This Contingency Plan provides

possible response procedures to be implemented in an emergency situations, which are intended to protect the public, personnel at the facility, and the environment. **(See Section 4.4)**

The facility will operate under this plan upon approval from the appropriate Agencies. After approval, the Contingency Plan will be amended as it becomes necessary due to plan revisions, facility changes, regulatory updates, or other reasons. If amendment is required, approval of all revisions will be obtained from the Agency. It is imperative that, due to the nature of this Plan, the Agency provide a timely approval of this Document when updates are needed. Certain Plan revisions, such as personnel changes or provisions that need to be immediately implemented in order to protect human health and the environment, may need to be put into effect prior to official approval of the revision to the Plan.

This plan provides the procedures to be followed based on the current conditions at the facility. Additionally, this Contingency Plan contains details for the procedures to be followed during and after the development of Proposed RMU-2.

2.0 GENERAL INFORMATION

2.1 FACILITY LOCATION AND SITE PLAN (NOTE:SEE ATTACHMENTS 4 AND 4A)

The location of the CWM Model City Facility within the Region and local Facility Site location are illustrated in the map section of this Plan **(Attachment 4)**. Attachment 4A illustrates the layout of the facility including proposed RMU-2 and proposed new Drum Management Building.

The CWM Model City Facility lies on a broad, relatively flat lowland known as the Ontario Plain, which ends abruptly at the Niagara escarpment to the south and at Lake Ontario on the north. The plain is bisected to the west by the Niagara River which flows across the Ontario Plain from the mouth of the Niagara Gorge to Lake Ontario. A number of northward-flowing streams, drain the lake plain, two of which also cross the facility. These are Six-Mile Swale (Ontario 156-1C) and Twelve-Mile Creek (Ontario 152-A), both of which are typically dry for several months during the year.

The CWM Model City Facility encompasses approximately 710 acres of rural land, with existing permitted hazardous waste treatment, storage, and disposal units occupying approximately 630 acres.

The site was previously part of a United States Government Department of Defense installation, formerly known as the Lake Ontario Ordnance Works. General use of surrounding land includes farmland, government-related industrial and research activities and undeveloped land owned by CWM.

2.2 FACILITY OPERATIONS

Current facility operations include hazardous waste secure landfilling, container handling and storage, bulk storage, PCB handling, storage, and disposal, fuels blending, aqueous waste treatment, and waste stabilization. The entire facility is under the responsibility of the District Manager. Reporting directly to the District Manager are Managers and Supervisors who are responsible for all plant functions. Most operations and support personnel maintain contact by hand held and mobile radios.

2.3 PLANT ENTRANCE

The Plant and Administrative entrance to the CWM Model City Facility is located at 1550 Balmer Road. This entrance is used by waste haulers, CWM employees, sales representatives, contractors and visitors. Other entrances are periodically utilized by suppliers and other personnel working on large construction projects. These entrances are open only during construction operations at which time the gates are manned by security officers.

2.4 SECURITY

A Security Officer is on duty at the main plant entrance 24 hours a day, seven days a week, including holidays. The Security Officer records logistical information either manually or by an electric system as necessary for persons entering or exiting the facility.

2.5 EMERGENCY NUMBER

The emergency telephone, **extension 0200 or ((716) 286-0221 from an external or mobile phone)**, is located in the Guard House at the main plant entrance. This telephone can only accept incoming calls. The Security Office maintains contact with the Area Supervisors and Sentrex Security Systems, Inc., by telephone and two-way radio. During the day shifts from Monday through Friday, the Security Office also maintains contact with the Emergency Coordinator by hand held radio.

Modified: Dec. 2013

2.6 HAZARDOUS WASTES HANDLED AT FACILITY

The facility receives and manages various types of hazardous waste identified in 6 NYCRR Subpart 371 and 40 CFR Part 261. Waste received in bulk, drums, or other containers generally fall within the following categories of materials:

- Wastewaters - acidic, basic, or neutral solutions generally containing metals and/or soluble organics. These materials are usually treated in the aqueous treatment facility, qualified in a facultative pond, and then discharged to the Niagara River via the facility SPDES permit.
- Inorganic solids and sludges - frequently contain metals. They are frequently stabilized and then managed in the secure landfill.
- Solids with organic contamination - generally consists of dirt or debris with organic contamination, suitable for landfill disposal.
- Organic solids and sludges not suitable for landfill disposal are generally managed off-site.
- Organic liquids such as halogenated and nonhalogenated solvents are generally bulked and shipped to burning or incineration facilities. PCB containing liquids are managed separately.

Each hazardous waste received by the facility has been characterized and classified with the proper EPA hazard code(s) by the generator. (see the Waste Analysis Plan) A list of the EPA hazard codes, along with an indication of their hazardous characteristics and the basis for listing is also presented in the Waste Analysis Plan. Also included in the WAP is a listing of the typical treatment/disposal options that may be used to process each listed waste. The actual treatment/disposal technique would depend on items such as the concentrations and quantity of the listed compound, its other waste components, physical state and the matrix (water, soil, debris, etc.). Wastes can also be transferred to other appropriately permitted facilities for treatment or disposal.

The main locations where wastes can be or are presently treated, stored and disposed of are the:

(a) Drum Management Building

(b) PCB Warehouse

(c) Trailer Parking Area
(d) Stabilization Trailer Parking Area
(e) Aqueous Waste Treatment Facility and all associated tankage
(f) Transformer Decommissioning Building
(g) Waste Stabilization Building
(h) Landfills and all associated tankage
(i) SLF 1-11 Oil/Water Separator Facility

Satellite accumulation areas are used throughout the facility.

For development of proposed RMU-2 the various types of hazardous waste the facility receives and manages will not change with the exception of the varying quantities received during the phases of development. Current locations where wastes are permitted for storage will be modified during development of RMU-2. The development of RMU-2 will require the following modifications to existing permitted units at the facility:

a) Demolition of the existing Drum Management Building and construction of a new Drum Management Building
b) Demolition of the existing South Trailer Parking Area and construction of a new area
c) Demolition of the existing Stabilization Trailer Parking Area and construction of the new area
d) Closure of Facultative Pond 8 upon radiological clearance
e) Closure of Facultative Pond 3, Construction of Facultative Pond 5
f) Removal and replacement of underground leachate transfer lines
g) Removal and replacement of the SLF 1-11 OWS Loading/Unloading Ramp
h) Removal and replacement of the SLF-10 Loading/Unloading Ramp

The new Drum Management Building will be constructed prior to demolition of the existing Drum Management Building. Therefore, waste management operations performed at the Drum Management Building and emergency procedures will not be affected during the construction of the new Drum Management Building. Upon completion and certification of the new Drum Management Building, waste management operations will be shifted from the existing Drum Management Building to the new building. The nature of wastes stored and the operations at the new Drum Management Building will be same as the old Drum Management Building with the exception of the storage and management capacities of various waste streams and shifting the transformer flushing operations from the TO Building to the new drum building. Final modifications to this Contingency Plan will be initiated upon operation of the new Drum Management Building.

During construction of the new Stabilization Trailer Parking Area and the new Full Trailer Parking Area, the facilities maximum storage capacity will be temporarily reduced. Waste storage operations during construction of the new trailer parking areas and demolition of the old trailer parking will be shifted to other waste storage areas at the facility or offsite. Final modifications to this Contingency Plan will be initiated upon operation of the new trailer parking areas.

It is anticipated that Fac Pond 5 will be constructed in the first year of site development for RMU-2. Fac Pond 3 will be utilized during the construction of Fac Pond 5. Upon construction and construction certification of Fac Pond 5and prior to construction of the second phase of RMU-2, Fac Pond 3 will be closed in accordance with the procedures in the Site-Wide Closure Plan with the exception that the pond area will not be backfilled to grade.

2.7 TYPES OF POTENTIAL EMERGENCIES

The potential for an emergency exists at this facility due to it's activities and the type of materials it handles. Additionally, natural events (e.g., hurricanes) could create an emergency situation at the facility that must be appropriately and effectively managed. These are addressed below as events which could potentially trigger implementation of some or all of the procedures detailed in the Contingency Plan.

2.7.1 Emergencies Inherent at Industrial Facility

Fires which:

- Could cause the release of toxic fumes;
- Could spread and possibly ignite materials at other locations on site, or cause heat-induced explosions;
- Could spread to off-site areas; or
- May produce contaminated runoff from controlling fire with water or chemical fire suppressants (would be contained at SMP's).
- Cause personnel injury

Explosions which:

- Could cause a safety hazard from flying fragments or shock waves;
- Could ignite other hazardous wastes stored at the facility; or
- Could result in release of toxic material.
- Cause personnel injury

Spills or Material Releases which:

- Could result in release of flammable liquids or vapors capable of causing a fire or gas explosion hazard;
- Could result in release of a reportable quantity of hazardous waste;
- Could result in on-site contamination;
- Could cause the release of toxic liquids, fumes or vapors; or
- Could result in contamination of surface water or ground water.
- Cause personnel injury

Accidents (vehicle or equipment) which:

- Could cause fire, explosion or spill described above;
- Could result in mixing of incompatible chemicals; or
- Could cause release of toxic materials to surface water, ground water, soil, or air.
- Cause personnel injury

Structural Failures

Treatment or storage tank and/or building failure or collapse could disrupt activities at facility and could endanger the health and safety of personnel onsite.

2.7.2 Natural Events

Every facility has the potential for emergencies caused by natural events, including major climatological, geophysical or other terrestrial events, such as:

- Heavy Rains and Surface Runoff;
- Floods (Facility lies outside of 100-year flood plain);
- Earthquakes (Facility is not located in a jurisdiction listed in 40 CFR 264 Appendix VI);
- Heavy Winds; or

Severe Weather.

ADDITIONAL EMERGENCY COORDINATOR RESPONSIBILITIES

3.0 IMPLEMENTATION OF RESPONSE PROCEDURES [6 NYCRR 2.4(C)(4), (F), AND (G)] (SEE ALSO PART I OF THIS PLAN)

In the event of fire, explosion or accidental materials release, response activities are initiated, as appropriate, following evaluation of the event. **An assessment of the situation is performed immediately by the Emergency Coordinator (EC). Response activities are directed as appropriate and a decision is made whether or not to implement the Full Contingency Plan.**

Should a spill be of a minor or controllable nature which presents no potential hazard to human health or the environment, the Emergency Coordinator, based upon his assessment of the situation, may decide not to implement the Full Contingency Plan, but rather to direct containment, control and notification procedures.

The Facility will not respond to off-site, non-CWM emergency response events. A summary of the emergency response procedures is posted on appropriate bulletin boards at the facility.

3.1 EMERGENCY ALERT - INCIDENT ASSESSMENT AND DECISION PROCESS BY EMERGENCY COORDINATOR

Steps to take, which would initiate response activities leading to implementation of the Contingency Plan are shown in this Section.

Following an Emergency Alert, the Emergency Coordinator will set up a command post and take control of the affected area including any resources necessary until the emergency has been eliminated and necessary clean up or restoration is completed.

3.2 IMPLEMENTATION OF CONTINGENCY PLAN BY EMERGENCY COORDINATOR

When the decision has been made to implement the Full Contingency Plan the Emergency Coordinator will direct:

- Coordination of emergency response measures conducted by the CWM Emergency Response Team.
- Implementation of internal notification;
- Where applicable, to confirm that processes and/or operations are stopped and that any released waste is contained and collected and to ensure fires or explosions do not spread;
- Determine the source and extent of the spilled materials. Evaluation criteria used by the Emergency Coordinator to determine if the Full Contingency Plan is to be implemented are presented in the front of this Plan;
- Ensure that any materials spilled in the incident area are isolated from other incompatible materials;
- Notification of authorities and requesting assistance, as necessary;
- Coordination of first aid activities, if casualties are involved, and activation of the casualty control procedures described in Section 5.0; and
- Record the time and type of incident (e.g., spill, fire, etc.);
- Record/assess the extent of injuries, if any; and
- Activation of the Evacuation Plan described in Section 6.0, if required.
- An accounting of all facility personnel/visitors by head count.
- Assess possible hazards to the environment and human health outside the facility.

3.2.1 Internal Notification and Responsibilities (See Part I Pages 5 Through 10)

The personnel to be notified are identified in the "Notification Action Summary", presented in the front section of this Plan.

3.2.2 Additional Contacts (See Part I Pages 5 Through 10)

A comprehensive list of response agencies and technical resources that may be required during an emergency are also listed in this Plan (see Table of Contents). Technical information resources are not committed to respond to emergencies.

3.2.3 General Responsibilities for Emergency Coordinator

The Emergency Coordinator (EC), or the alternate EC in his absence, is responsible for coordinating all response measures during any emergency. He acts as the director of the emergency response team during each operating shift, with complete and total control of all activities during the incident. The EC has the authority to designate other employees to assist him in the event of an emergency. The EC has also been granted full corporate authority to expend all pertinent resources to deal with the situation.

The EC's comprehensive training in emergency response includes:

- Emergency preparedness and incident command;
- Knowledge of site evacuation plan;
- Effective utilization of emergency response equipment and communication devices;
- Fire extinguisher training;
- First Aid and CPR; and
- Fundamentals of toxicology and chemistry.

In addition, the EC is familiar with all aspects of the facility's Contingency Plan, all operations at the facility, the location and characteristics of waste handled, and the location of facility operating record documents.

The EC or his alternate is always "on-call", and can be reached via telephone or mobile phone. The EC and the Alternate ECs arrange their schedules such that one of them can be reached any day of the year, 24 hours per day.

During an emergency, the EC shall maintain lines of communication with key community emergency services including fire and police agencies, medical facilities, and emergency response units. The facility's management personnel are capable of emergency communication via telephone.

Arrangements have been made with emergency service organizations to assure their availability and assistance in emergency situations. All site emergency equipment is available to the EC for use.

In general, the persons making notifications should give the following information:

- Name and telephone number;
- Name and address of facility;
- Time and type of incident (e.g., discharge, fire);
- Name and quantity of material(s) involved, to the extent known;
- Extent of injuries, if any; and
- Possible hazards to the environment and human health outside the facility.

Modified: Dec. 2013

3.2.4 Identification of Waste Material and Hazard Assessment by Emergency Coordinator

As soon as possible, the Emergency Coordinator (EC) shall assess the character, source, and extent of any released materials by visual inspection, reference to manifests, and other available sources of information.

After the materials have been identified to the fullest extent possible, the EC shall assess possible hazards, both direct and indirect, to human health or the environment, and subsequently notify the appropriate site personnel and outside authorities.

The EC's hazard assessment may include information from other site personnel. The EC may obtain reports from individuals as to the status of all on-site personnel. Attendance information taken from the electronic personnel list located at the guard house and main office will be reviewed. The Casualty Control Officer (CCO) will relay information concerning injuries or casualties.

Based on his knowledge of the existing conditions, the EC must determine the following:

- Can facility personnel control the emergency? If so, activate Emergency Personnel Response Activities Plan (Section 4.2). If not, he will direct the Communications Coordinator or his designee to immediately notify the appropriate federal, state, and local agencies and summon additional off-site resources;
- Is Casualty Control required? If so, activate the Casualty Control Plan (Section 5.0). The following locations are designated as the on-site aid stations (Regular First Aid Station: Emergency Response Garage; Alternate First Aid Stations; Facility Training Room and Administration Building);
- Is site evacuation necessary? If so, activate Evacuation Plan (Section 6.0); and
- Is evacuation of local area advisable? If so, communicate necessary information, via the Communications Coordinator or designee to the Niagara County Sheriff.

4.0 CONTAINMENT AND EMERGENCY RESPONSE ACTIVITIES [6 NYCRR 373-2.4(C)(1)]

The facility's operations are designed to minimize the potential hazards to facility personnel, to contain spilled materials and to prevent such movement off-site. Operational features of the CWM facility and response activities of key individuals are presented below.

4.1 FACILITY PROVISIONS

All processing and storage areas with the potential for hazardous waste or PCB spills are constructed with secondary containment features to contain spilled materials and prevent their movement offsite. Processing equipment is designed to minimize hazardous material spills through use of appropriate materials of construction, high level alarms and operating procedures.

The facility has prepared an SPCC plan to address the specifics of spill control for bulk petroleum product.

Severe weather conditions such as high winds, heavy precipitation, or severe electrical storms may require shutdown for employee safety until the weather episode abates. If any damage were to occur because of severe weather conditions, the specific operation would be immediately shut down until repairs could be completed. If an earthquake were to cause damage to an operation, immediate shutdown of all operations would occur until the extent of the damage is known.

4.2 EMERGENCY PERSONNEL RESPONSE ACTIVITIES

The CWM Emergency Response Team receives training in order to respond effectively to incidents such as fires, minor first-aid cases or materials spills discussed in Section 2.7.1, at the facility which could cause potential emergencies. Containment and control activities are directed by the Emergency Coordinator. The EC and the Emergency Response Team personnel will

respond to the emergency as prescribed by the EC. The Emergency Response Team Organizational Chart is shown in **Attachment 5**.

4.3 TRAINING

Everyone who occupies a position that is identified in the Contingency Plan will receive appropriate training. This applies to all persons at all facility levels who have responsibilities under this Plan.

Emergency responders are trained to the OSHA Hazmat Technician or Specialist level dependent upon individual position responsibilities. Training, based upon responsibilities, include the following: (1) hazard assessment; (2) search and rescue procedures; (3) methods of mitigation; (4) contamination control; (5) basic toxicology; (6) hazardous waste characteristics/class; (7) TLVs/PELs; (8) heat stress; (9) injury evaluation/first aid (10) decontamination procedures; (11) evacuation procedures; (12) communications with outside emergency response organizations.

Emergency Exercises

Emergency exercises involving the total facility and the CWM Emergency Response Team will be scheduled and will be coordinated by the Emergency Coordinator. The type of exercise may be a functional or full-scale exercise. Full-scale exercise will be scheduled at least once per year.

- Functional Exercise
  - Involves testing or evaluating the capability of individuals or multiple functions, or activities within a function.

- Full-Scale Exercise
  - A mock emergency will be staged in which CWM's emergency response personnel that would be involved in an actual emergency perform the actions they would take in an emergency. These simulations may focus on limited objectives of testing the capabilities of the Emergency Response Team and/or involvement of outside response organizations.

Critique of Response and Follow-up

Upon completion of the emergency exercise, the Emergency Coordinator will obtain comments and suggestions from emergency respondents, identify response deficiencies. Based on this review, suggestions for revisions to the emergency response activities will be made to facility management.

4.4 EMERGENCY PROCEDURE SCENARIOS [6 NYCRR 373-2.4(G), 373-2.9(B), AND 373-2.10(G)

Each storage, processing, treatment, and disposal unit at the facility will have built-in control features, containment structures, and equipment to facilitate emergency response procedures. The general procedures described in Section 3.2 apply to all areas of the facility. Additional procedures are described below.

Typical Container Spills and Leakage Scenarios

In the event a non-PCB spill or leak occurs in the drum warehouse, process storage areas or satellite accumulation areas, it will be cleaned up immediately with absorbent materials. The remaining contents of any leaking containers will be transferred or placed in an overpack container. The containment module or area will then be inspected to ascertain whether it contains any spilled waste. Any waste in the containment will be cleaned-up immediately, generally by the use of absorbent materials and, depending on location, rinsed to remove any residues. Ultimate disposal will depend on the exact substance spilled.

If a spill of PCB liquid in the PCB Warehouse or other PCB storage areas is observed, the cleanup procedures contained in the TSCA Approval Letter, 40 CFR Part 761 or other appropriate on-site policy will be followed. A typical cleanup scenario for PCB cleanup includes: immediate removal of the PCB oil with an absorbent; transfer of the absorbent to a container; cleaning of the spill area with an appropriate wash solution; removal of the cleanser solution with absorbents; and placement of all cleanup residues, materials, disposable equipment,

and protective clothing in storage containers for disposal. Once these areas and surfaces have been decontaminated following those procedures, PCB decontamination will be evaluated. A PCB wipe sample may be taken to determine if PCB concentrations achieved are consistent with the provisions in 40 CFR 761.125(c)(3)(iii). All rinse waters, used-solvent rinses, and other residues from PCB decontamination procedures will be managed as TSCA wastes at an approved treatment facility. Non-disposable cleanup equipment will be decontaminated in accordance with 40 CFR 761.79 for reuse. Areas of unachievable decontamination may be painted over with a sealant.

Typical Tank Spills and Leakage Scenarios

Wastes from any tank (or tank system) leak will be removed from the containment area and the tank will be scheduled for repair. If the leak is not repairable, or the leak cannot be repaired without removing the contained waste, then the waste will be transferred as soon as possible from the leaking tank to another tank or to tanker trucks. Waste compatibility issues will be addressed prior to transferring. The leaking tank will not be reused until the leak is repaired.

Typical Spill Scenarios Occurring Outside of Containment Areas

In the unlikely event a spill occurs outside of a containment area, it will be cleaned up using absorbent materials, by pumping into containers, by pumping via vacuum truck or other appropriate methods. Neutralizing chemicals may be used to reduce the hazard or toxicity of the spilled waste, if appropriate. Spilled liquids and solid materials will be analyzed and treated and/or disposed of as permitted by regulations. All contaminated soil will be removed, treated and/or disposed of as permitted by regulations. Generally, as per 6NYCRR Part 373-2.10, a leak or spill of hazardous waste of greater than one pound from a tank system to the environment must be reported to the DEC within 24 hours. A written report must follow within 30 days and must address the likely route of migration, characteristics of surrounding soil, results of any monitoring or sampling, proximity to downgradient drinking water, surface water and populated areas and description of response actions taken or planned.

Surface Impoundments

A surface impoundment must be removed from service upon identification of a leak in the containment berm or when the liquid level drops suddenly and is not known to be caused by changes in flow into and out of the impoundment. Removal from service includes immediately shutting off flow into impoundment (if applicable), containing any surface leakage, stopping the leak or emptying the impoundment below the level of the leak if it cannot be repaired. For the Fac Ponds, detection of a leak would prompt repair of the clay berms. If it was necessary to lower the liquid level, the material could be transferred to another impoundment with a compatible disposition. The impoundments may not be returned to service until the repair has been recertified.

Landfill - RMU-1 and Proposed RMU-2

In the event of a fire in the active landfill(s), soil may be used to smother the fire. Elimination of oxygen would generally be the most effective means of controlling a landfill fire. Several other methods are also currently available including fire hydrants, the on-site water tank and the on-site Ansul unit. The Youngstown Fire Department or other Fire Departments in the area could also be called upon to help in an emergency associated with a major fire that could not be handled with the site methods indicated above.

RCRA regulated reactive and ignitable wastes are restricted from landfill disposal by the Land Disposal Restriction (LDR) regulations unless they are deactivated. These wastes will be managed by properly processing, stabilizing, or otherwise rendering nonreactive, before placement into the landfill so that the material no longer meets the definition of reactive under 6 NYCRR Part 371.3(d) and 40 CFR 261.21 and 261.23. In addition, incompatible waste materials will not be placed in the same landfill cell unless they have been treated so that they are compatible prior to placement or they have been properly segregated. The analyses described in the Waste Analysis Plan are implemented to ensure compliance with these requirements.

5.0 AVAILABLE EMERGENCY EQUIPMENT [6 NYCRR 373-2.4(C)(5)]

The facility maintains an alarm system, communications system, and emergency response equipment. On-site equipment will enable facility personnel to react and respond to most minor emergency incidents which might arise. However, if needed, supplemental emergency equipment and supplies will be obtained from outside sources.

5.1 ALARM AND COMMUNICATION SYSTEMS

The off-site communication network consists of the local telephone system. Telephones connected to areas outside the facility are located in operational buildings. The off-site communication network is supplemented by cellular phones. The internal network consists of telephones, cellular phones, two-way portable and stationary radios, and the alarm system. CB's could be used if telephones are out of service. The current primary alarm for notification of an emergency are the electric sirens/horn located in the Administration Building, on the roof of the Fire System Water Storage Tank and on the Boiler House. The sirens/horns can be activated by the Security Officer at the Main Plant Entrance. When activated, the sirens/horns will alert the facility. The sirens sound for two minutes. During development of RMU-2, the Fire System Water Storage Tank will be demolished and not replaced. The siren located on top of tank will be relocated to the top of the Stabilization Building.

The Current Drum Management Building sprinkler system alarm is a water-activated bell and an electronic horn located on the north outside wall of the building. This bell, and a horn located at the main gate security office, rings automatically when the sprinkler system is activated. Alarms located in the proposed new Drum Management Building when activated will activate alarms in the main security office.

Modified: Dec. 2013

5.2 ON-SITE EQUIPMENT (SEE NEXT PAGE)

The emergency response equipment available at the site includes items indicated on the following page. These lists are considered typical of the equipment at the CWM Model City Facility. Types, quantities and locations of individual pieces of equipment may vary depending upon changes in operations and the levels of minimum equipment required to respond to an emergency.

FACILITY SAFETY AND EMERGENCY EQUIPMENT 6NYCRR Part 373-2.4(c)(5)

EQUIPMENT	**LOCATION**
Ansul Twin-Agent Model 450/100 Fire Truck which contains: Dry Chemical and Forming Foam; description: mobile unit, 450 lbs. dry chemical and 100 gallons AFFF capability: for B/C type fires, non-structural	Emergency Response Garage
Dry Chemical Fire Extinguishers; **Dry Powder Fire Extinguishers;** description: either ABC - dry chemical or BC - halon, CO2 or D - dry powder capability: ABC can be used for ordinary combustibles, flammable liquids and gases and electrical equipment; BC is used for flammable liquids and gases and electrical equipment; D is used for metal bearing chemical fires such as sodium metal	

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT **LOCATION**

SCBA Air Packs;
SCBA Air Packs Spare Bottles;

description: portable air tank
within a unit that is strapped to the back
capability: provides about 0.5 hours of breathing air

Honda Gasoline Generator

description: gas powered, portable, 5,000 Watt

capability: provides power for emergency lighting, ventilation

Portable Fire Extinguishers which are either dry chemical or dry powder are located in these areas:

Administration Building

Ansul Twin Agent Fire Truck

Aqueous Treatment

Boiler Room

Existing Drum Management Bldg.

New Drum Management Bldg.
(upon development of RMU-2)

Existing Emergency Response Garage

New Emergency Response Garage
(upon development of RMU-2)

Emergency Response Van

Environmental Monitoring Building/DEC Office

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	LOCATION
Portable Fire Extinguishers (continued)	Fuel Area
	Groundwater Extraction Buildings
	Existing Heavy Equipment Maintenance
	New Heavy Equipment Maintenance (upon development of RMU-2)
	Laboratory
	Laboratory Office Trailer
	Lunch Room Locker Room for Employees
	Miscellaneous Equipment
	Old Administration Bldg.
	PCB Area
	PCB Warehouse
	Pump Room
	Records/Scales
	RMU-1 Lift Station (to be removed upon development of RMU-2)
	Safety Supply Store

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	LOCATION
Portable Fire Extinguishers (continued)	Security Bldg., Main Gate
	SLF 1-6 Lift Station
	SLF 1-11 OWS Building
	SLF 7 Lift Station
	SLF 7/11 Leachate Bldg.
	SLF 10 Leachate Building
	SLF 12 Lift Station
	SLF 12 OWS Building
	Stabilization Facility
	TO Building
	Vehicles for Plant
	Water Treatment
Dry Powder for Ansul recharge description: dry powder chemical capability: provides recharge source for Ansul unit	Emergency Response Garage
AFFF Foam for Ansul recharge description: AFFF Foam chemical capability: provides recharge source for Ansul unit	Emergency Response Garage
Nitrogen Bottles for Ansul recharge description: nitrogen containing bottles capability: provides pressure source for Ansul unit to disperse reagents	Emergency Response Garage

Note: the Emergency Response Garage will be relocated to the existing Truck Wash Building during development of the RMU-2. The facility safety and emergency equipment will not change from the existing to the new Emergency Response Garage.

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	**LOCATION**

Fire Hydrants

description: fixed sources of piped water
capability: provides pressurized water
source for fire fighting

1-west of Employee Locker Room
1-north of Employee Locker Room
1-southeast of Employee Locker Room on Marshall Street
1-north of Environmental Trailer on Marshall Street
1-southeast of "H" Street on Marshall Street
1-intersection of "J" and Marshall Street
1-south of "J" Street on MacArthur Street
1-north of "M" Street on MacArthur Street
1-intersection of Hall Street and "M" Street
1-south of Lunch/Training Room on "M" Street
1-southwest of Stabilization Building
1-on Marshall Street at Main Entrance Gate
1-east of Arc Pyrolysis Building on "M" Street
1-east of Campbell Street on "M" Street
1-southwest of Administration Building
1-southeast of SLF-10
1-southwest of RMU-1
1-southeast of Emergency Response Garage on "M" Street
1-north of Stabilization truck road on Hall Street
1-east of SLF-12 Lift Station on Hall Street (upon development of RMU-2)
1-souteast of SLF 1-6 (upon development of RMU-2)
1-northwest of RMU-1 at intersection of "J" and MacArthur Street (upon development of RMU-2)

350,000-gallon Fire Water Tank — Next to Drum Management Building

description: fixed above ground tank containing water
capability: provides pressurized water source for sprinkler system & fire fighting, primarily for Drum Management Building

The existing 350,000-gallon Fire Water Tank will be demolished during the development of RMU-2. The existing Drum Management Building will also be demolished during the development of RMU-2 and will be replaced with the new Drum Management Building. The

new Drum Management Building will be equipped with a dry chemical fire suppression system. Therefore, the Fire Water Tank will not be necessary and will not be replaced during the development of RMU-2. The existing Drum Management Building and Fire Water Tank will not be demolished until the new Drum Management Building is operational.

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	**LOCATION**
Hand Held Radios description: 2-way portable units capability: limited to on-site usage	General Plant Areas
Air Compressors description: portable gas units capability: pressure supply for tools	Plant
Generators description: portable units capability: electrical supply for tools and equipment	Plant
Pumps description: fixed and portable units capability: provides vacuum source for pumping liquids, leachate and sludges	Operating Areas
Supersucker description: mobile gas unit capability: provides mobile vacuum source for pumping liquids, leachate and sludges from standpipes, tanks, containment, etc.	Operating Areas

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	LOCATION
Dump Trucks description: mobile gas unit capability: provides mobile transportation source for solids	Landfill/Grounds
Pumps description: mobile units capability: provides mobile vacuum source for pumping liquids	Maintenance
Bulldozers description: mobile diesel unit capability: provides earth moving source	Landfill/Grounds
Loader description: mobile diesel unit capability: provides earth moving/loading source	Landfill/Grounds
Excavator description: mobile diesel unit capability: provides earth digging/moving source	Landfill/Grounds/Stab.
Water Trucks description: mobile unit capability: provides water source for wetting in landfills roads and operations	Grounds

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	LOCATION
Self Contained Breathing Apparatus (SCBA)	
description: portable unit strapped to back capability: provides supplied air breathing source for about one-half hour	Aqueous Treatment Existing Drum Management Building New Drum Management Bldg. (upon development of RMU-2) Emergency Response Van Existing Emergency Response Garage Existing Facility Maintenance Shop Stabilization Facility (Office/Clean/Dirty Bldg.)
Absorbent description: absorbent material capability: used for spills	PCB Warehouse, Existing Drum Management Building New Drum Management Bldg. (upon development of RMU-2)

FACILITY SAFETY AND EMERGENCY EQUIPMENT (continued)

EQUIPMENT	LOCATION
Vacuum trucks description: mobile units capability: provides vacuum source to remediate spills or water	Various Locations in Operations Area
Personal Protective Equipment description: gloves, boots, Tyvek, hard-hats, respirators, air cartridges, etc. capability: personal protection	PPE Safety Supply Room at Emergency Response Garage
Emergency Lights description: portable lighting capability: provides emergency light source	Heavy Equipment Garage
First Aid Kits description: stationary kits capability: provides minor first-aid	Administration Building Aqueous Treatment Bldg. Existing Drum Management Building New Drum Management Bldg. (upon development of RMU-2) Existing Emergency Response Garage New Emergency Response Garage (upon development of RMU-2) Emergency Response Van Env. Monitors Office Facility Maintenance Shop

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	LOCATION
First Aid Kits(continued)	Existing Heavy Equipment Maintenance Building
	New Heavy Equipment Maintenance (upon development of RMU-2)
	Laboratory - West Wall
	Main Gate Security Office
	Safety Supply Store
	Scale/Receiving Area
	Stabilization/ Existing Landfill
	New Landfill (upon development of RMU-2)
Emergency Showers/Eye Wash Stations	
description: stationary units capability: provides body wash and eye wash emergency water source	
Aqueous Treatment Facility	Drum Storage Dock
	East Tank Farm
	Filter Press Room - upstairs next to press
	Filter Press Room - downstairs next to roll-off container
	Next to Tank T-810
	Next to Tank T-910
	Next to Tank T-1010

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	LOCATION
Emergency Showers/Eye Wash Stations (continued)	
Waste Water Treatment Facility	West side next to overhead door
PCB Warehouse	Center area of building
Equipment Maintenance	Southwest corner
Laboratory	East side of building
	West side of building
Facility Maintenance	Compressor room
Environmental Monitoring Bldg.	Laboratory
Existing Drum Management Building	North side of building
	South side of building
	Laboratory
New Drum Management Building	Area 1
	Area 2 Area 3
	Area 6
	Laboratory
Roll-off Garage	North side next to wash bay
Note: to be converted to new Emergency Response Garage upon development of RMU-2	
Stabilization (Center Section)	East end of building, 1st floor Southwest end of building, 1st floor

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	**LOCATION**
Emergency Showers/Eye Wash Stations (continued)	
	East end of building, 2nd floor
	Southeast end of building, 1st floor
	Near TA-5 silo
Stabilization (Northern Expansion)	Southeast wall
	Northeast wall
Truck Wash Facility	Northeast Wall
SLF 7/11 Leachate Building	Next to Tank T-108
SLF 10 Leachate Building	Next to Tank T-109
SLF 1-11 OWS Building	Next to Tank T-158
Stretcher Locations	
description: stretcher capability: provides means to carry victim	
	Aqueous Treatment Facility, Control Room
	Stabilization Facility, Office/Clean/Dirty Bldg.

FACILITY SAFETY AND EMERGENCY EQUIPMENT (continued)

EQUIPMENT	LOCATION
Fire Hose	
description: fire-fighting water hose capability: provides means to extinguish certain fires such as wood burning, paper, structural fires, etc.	
Existing Drum Management Building	North wall
	South wall
New Drum Management Building (dry chemical fire suppression system)	Not necessary
Stabilization (Center Section)	Southwest wall, ground floor
	Northeast wall, ground floor
	Northeast wall, 1st floor
Stabilization (Northern Expansion)	East end, south wall
	West end, south wall

EMERGENCY RESPONSE VAN EQUIPMENT (not all inclusive)

Neck Collars
Backboard
Stretcher
First aid kit
Blankets
Set splints
Rope
Safety harnesses with Life line

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	**LOCATION**

EMERGENCY RESPONSE VAN EQUIPMENT (continued)

Electrical extension cords
Speedi-dry
Absorbent socks
soda ash
Empty pails
plastic bags
Brooms
Shovels
Sledge hammer
Bar
Plastic
Vinyl tarp
duct tape
barrier tape
Traffic safety cones
Self contained breathing apparatus (scba)
Saranex suits
Leak patch tool kit
HF kit
Cyanide kit
EMT bags with oxygen
Flash lights

EXISTING EMERGENCY RESPONSE GARAGE
(to be relocated to new Emergency Response Garage upon development of RMU-2)

Drum roll
pH kit
Nu-dough (box)
Flashlights
tools
PPE

FACILITY SAFETY AND EMERGENCY EQUIPMENT
(continued)

EQUIPMENT	**LOCATION**
EXISTING <u>EMERGENCY RESPONSE GARAGE</u> (continued)	
Blood pathogens spill clean up kit	
LEL/oxygen meter	
Honda gas generator	
One ton cable hoist	
Cable with hooks	
Portable electric lights	
Miscellaneous decon equipment	
cribbing	
dolly	
Binoculars	
Bull horn	

An Emergency Response Van is accessible to response personnel at all times. The principal function of this unit is to make personal protective and spill response equipment readily available at any location where personnel may require it. All response team members are instructed in the use and maintenance of the protective equipment.

The Ansul Fire Unit is a truck mounted unit which holds about 450 pounds of dry chemical and about 100 gallons of AFFF solution. The unit is normally located in the existing Emergency Response Garage. Emergency Response Team personnel are trained in the movement, operation, and maintenance of the unit. The Ansul Fire Unit will be located in the new Emergency Response Garage upon development of RMU-2.

Approximately 180 portable fire extinguishers are located in various marked locations within the CWM Model City Facility.

Fire extinguishers and first aid kits are checked and serviced as required. In addition, most on-site vehicles and equipment carry ABC-type extinguishers and first aid kits. Many employees are trained and qualified to administer first aid/CPR.

Water for Fire Control

Water for firefighting within the facility is provided by fire hydrants located throughout the facility.

A Dry-pipe sprinkler system delivering roughly 0.15 gpm/ft^2 to zoned areas is installed in the existing Drum Management Building.

A 350,000-gallon fire water tank is located north of the Existing Drum Management Building and provides the source of sprinkler water. Water from the fire water tank is channeled to a below ground fire service main using a fire pump. This fire service main distributes water to the Existing Drum Management Building and hydrant service located at the Fire Pump House.

The existing 350,000-gallon Fire Water Tank will be demolished during the development of RMU-2. The existing Drum Management Building will also be demolished during the development of RMU-2 and will be replaced with the new Drum Management Building. The new Drum Management Building will be equipped with a dry chemical fire suppression system. Therefore, the Fire Water Tank and Fire Pump House will not be necessary and will not be replaced during the development of RMU-2. The existing Drum Management Building and Fire Water Tank will not be demolished until the new Drum Management Building is operational.

5.3 OFF-SITE RESOURCES

Supplemental emergency equipment will be available if needed from off-site resources. The nearby fire departments (Youngstown, Ransomville, Upper Mountain, and Lewiston #1) have self-contained breathing apparatus, diking materials, and containment equipment. The available fire trucks are equipped with foam concentrate. The ambulances from the local emergency services have 24-hour capability and are equipped to treat traumatic injuries.

6.0 CASUALTY CONTROL OFFICER RESPONSIBILITIES

During the course of an emergency, injured individuals will be given first aid, as necessary. For more serious injuries outside medical assistance will be sought. The Casualty Control officer (CCO) will have primary responsibility for medical assistance but will keep the EC informed throughout the emergency. During an emergency situation, the CCO will accomplish the following:

- Designate, organize, and direct available first-aid personnel. The first-aid stations are located in the existing Emergency Response Garage, Training Room and SPEC Center. Additionally, first aid stations will be located in the new Emergency Response Garage to be relocated to the Truck Wash/Roll Off Building upon development of RMU-2
- Access on-site information regarding injury-causing agents, including toxicity and decontamination requirements.
- Assess the situation and summon emergency medical assistance from the Youngstown Fire Department Ambulance Service (911), Mt. St. Mary's Hospital (911) and/or the Niagara Falls Medical Center (716-278-4000) as necessary. Meet incoming emergency/medical services personnel and guide them to the first-aid station or location of the injured individual(s);
- Injured personnel will be placed in the care of qualified medical personnel. The CCO will provide casualty control resources to the medical service person in charge; and
- Assist the medical service person in charge by providing notification to the appropriate hospital or emergency room of the arrival of casualties, nature of injury, information on toxicity and decontamination, and any other pertinent information. Such information shall be promptly transmitted to those with a need-to-know.

6.1 EVACUATION PLAN [6 NYCRR 373-2.4(C)(6)] (SEE ATTACHMENT 2)

The Emergency Coordinator, or his alternate, is the only person authorized to call for complete evacuation of the site in response to an emergency situation which threatens the health and safety

of facility personnel. He may take this action based upon his analysis of the situation or at the request of the On Scene Incident Commander or a outside Fire Department or other public emergency service.

6.2 SITE ACCESS AND EGRESS

The facility is located at 1550 Balmer Road. This site can be reached from NY State Route 18, via Balmer Road. The primary evacuation route (Attachment 2) from the facility's current operations area is east on " M" Street, north on McArthur Street, east on "J" Street, north on Marshall Street, through the main gate on Balmer Road. The alternate route is west on "M" Street and through the Lutts Road entrance. A new evacuation route will be necessary due to construction of RMU-2. The primary evacuation route (Attachment 2) from the facility's proposed operations area after development of RMU-2 is east or west on "M" Street to Hall Street, north on Hall Street, east on the street located in front of the administration building, north on Marshall Street, through the main gate on Balmer Road. The alternate route is west on "M" Street and through the Lutts Road entrance. The site is designed and operated to facilitate access to all internal points for inspection and emergency response.

Access to the facility is always restricted. During an emergency the security guard will allow immediate access only to emergency response professionals. Other state and federal personnel will be allowed access by the EC or CC as necessary.

6.3 EVACUATION PROCEDURES

The following actions will be taken when the EC orders a site evacuation:

1. The EC or his designate will immediately notify local emergency services by calling 911 for assistance, reporting any casualties and arranging for their emergency care. The EC will coordinate activities with police, fire department, or other public emergency services;

2. The EC or a designee will determine which exit routes will be used depending upon the location of the incident, wind direction, and personnel location. Prior to evacuation, the Area Supervisors shall account for all personnel in their respective areas.

3. The EC will broadcast evacuation instructions via voice, telephone communication or two-way radio;

4. Security personnel or designee will unlock the required emergency exit gates immediately. The evacuation route through the main gate is always open and staffed by security personnel 24 hrs. per day. The emergency gates are designed to provide security from unauthorized entry without obstructing exit during an emergency;

5. All personnel, visitors, and contractors will immediately leave through the designated exit gate(s) as instructed. These evacuation routes are shown in the **Attachment 2** section;

6. Evacuation should proceed as follows:

   If downwind of incident, evacuate perpendicularly to wind direction over the most accessible route; and

   If upwind of incident, evacuate in the upwind direction.

7. Personnel will regroup at one of the following areas as designated by the EC:

   - The intersection of Balmer Road and Marshall Street; and
   - The OLD Administration Building parking lot at the far northwest corner of the facility.

8. The Personnel Coordinator (PC) will initiate a head count and check it against the sign in/sign out sheets located in the guard house and main office. The PC will account for all personnel at regrouping area(s). This information will be communicated to the EC.

Evacuation Procedures during and following development of proposed RMU-2 will not change other than the site access and egress described in Section 6.2.

6.5 COMMUNITY IMPACT CONSIDERATIONS

In anticipation of the remote possibility that areas adjacent to or near the site may be endangered, CWM representatives have discussed procedures for evacuating the surrounding areas with local authorities. The following items will be discussed with local authorities:

- The Emergency Coordinator (EC) assisted by the Communications Coordinator (CC) will notify local authorities of the possible need to evacuate off-site areas. The EC will indicate the nature, extent, and rate of spread (including direction) of potential hazards to the community;
- Prior to local response, facility personnel will, under the ECs direction, request the Niagara County Sheriff's Department and/or New York State Police to initiate roadblocks (if necessary) and evacuation procedures for areas adjacent to the site;
- Assisted by the Communications Coordinator, the EC will maintain communications with local authorities and assist in the coordination of the community evacuation, emergency response, and casualty control activities; and
- The Niagara County Sheriff's Department and/or New York State Police will implement these procedures for the evacuation of the endangered areas.

6.6 RE-OCCUPANCY OF FACILITY

The determination of when the facility may be safely re-occupied will be made by the Emergency Coordinator (EC) in consultation with responding emergency services agencies. Site activities will only resume after the EC has announced an "all clear" notification.

7.0 POST-EMERGENCY PROCEDURES

Post-emergency procedures are designed to prevent recurrence, clean-up and dispose of residuals, decontaminate equipment, and provide for personnel debriefing.

7.1 PREVENTION OF RECURRENCE [6 NYCRR 373-2.4(G)(5)]

The Emergency Coordinator will take all necessary steps to ensure that a secondary release, fire or explosion does not occur after an initial incident. Procedures that will be carried out in the affected area include:

- Inspection for any leaks or cracks in pipes, valves, tanks, and drums;
- Inspection for gas generation or leakage;
- Separation of potentially incompatible residues;
- Monitoring all pressure valves; and
- Isolation of residual wastes.

All operations that were initially shut down in response to the incident will not be reactivated until the EC announces an "all clear" signal.

7.2 TREATMENT AND DISPOSAL OF RELEASED MATERIALS AND CLEAN-UP RESIDUES [6 NYCRR 373-2.4(G)(7)]

Once the emergency situation has ended, the EC will initiate clean-up and disposal of the residues. This will occur as soon as possible in order to avoid further contamination.

Liquid spills occurring within a containment area will be analyzed, removed, and stored securely. Spilled liquids cleaned up with spill control materials will be placed in drums and sealed. Leaking containers will be immediately segregated and repackaged or drained. Clean-up

materials and residuals will be collected and containerized for disposal or incineration in accordance with applicable regulations.

All waters collected during an emergency will be handled as hazardous waste, and managed appropriately.

7.3 EQUIPMENT DECONTAMINATION AND MAINTENANCE [6 NYCRR 373-2.4(G)(8)(II)]

All equipment used during the cleanup will be decontaminated and readied for future use. All response personnel will remove any contaminated clothing and shower as necessary. Fire extinguishers will be recharged, personnel protective equipment replaced, and spill control materials restocked. Before operations are resumed, an inspection of all safety equipment will be conducted to verify readiness. All residue and debris from decontamination will be collected and containerized for disposal.

7.4 PERSONNEL DEBRIEFING AND RETRAINING

The Emergency Coordinator will conduct debriefings of the incident with site supervisors, operating personnel, and local authorities to assess preparedness, emergency response activities, casualty control, and evacuation procedures to determine future preventative measures and activities. Based on this review, a written critique will be prepared and suggestions for revisions to the Contingency Plan will be made to facility management.

7.5 NOTIFICATION PRIOR TO RESUMING OPERATIONS IN THE AFFECTED AREAS

According to 6NYCRR Part 373-2.4(g)(9), before operations are resumed in the affected area(s) of the facility, the owner or operator must notify the commissioner, and appropriate State and local authorities, that:

1. no waste that may be incompatible with the released material is treated, stored or disposed of until cleanup procedures are completed; and
2. all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

8.0 ARRANGEMENTS WITH LOCAL AUTHORITIES AND OTHER RESOURCES [6 NYCRR 373-2.3(G), 373-2.4(C)(3) AND (D)(2)]

CWM Chemical Services, LLC (CWM) has made contact with local authorities which may be involved in an emergency situation. Each of these authorities has been provided a copy of the facility's current Contingency Plan (see **Attachment 1**). Specific involvements have been discussed and are determined by the local mutual aid agreements.

The authorities in **Attachment 1** have been advised of materials handled at the facility, the likely hazards involved, and the storage, treatment, and processes used. Material Safety Data Sheets and other technical references pertaining to hazardous materials are available at the site for use by hospital personnel. Helicopter evacuation of injured personnel is possible, if warranted.

CWM periodically conducts training sessions with the response team members and representatives of local fire departments to provide information concerning:

- Facility layout;
- Location of possible hazards;
- Emergency equipment location and operation;
- Evacuation plan and route;
- Power cutoff;
- Communications equipment;
- Phone numbers of all required contacts; and
- Other critical information and procedures.

9.0 INCIDENT REPORTING [6 NYCRR 373-2.4(G)(10)]

All incident reporting from the facility, if requested by the Emergency Coordinator (EC), will be conducted by the Communications Coordinator (CC) or Alternate. The National Response Center and the New York State DEC will be notified if there has been a spill or release of a hazardous waste/substance in excess of reportable quantity or if it is determined that the spill may cause environmental damage or a human health hazard. 6 NYCRR 373-2.4(g)(4) and 40 CFR 264.56(d)(2) require immediate verbal notification of the National Response Center **[1-800-424-8802]** or the On-Scene Coordinator for the area, and the New York State DEC [24 hour oil and hazardous material spill notification number: **(518) 457-7362**] specifically, if the EC determines that "the facility has had a release, fire or explosion which could threaten human health, or the environment, outside the facility."

6 NYCRR 373-2.4(g)(10) further states that any emergency event requiring the implementation of the Contingency Plan will be reported in writing within 15 days to the NYSDEC Commissioner.

All required information will be provided in a written report which may reference the incident reporting forms used by the facility.

Modified: Dec. 2013

9.1 REPORTING INCIDENTS MITIGATED ON-SITE

(Full Contingency Plan not implemented)

The following procedures are to be followed as required depending on the type of incident:

- Report incident to WMI Corporate offices verbally at the time of the incident and submit a complete incident report form after the incident is controlled. A copy of the incident report will be provided to the Technical Manager who will maintain the copy of the incident reports in a central file at the facility.

9.2 REPORTING INCIDENTS IMPLEMENTING FULL CONTINGENCY PLAN

The following procedures are to be followed:

- Report incident to local authorities and request emergency support, if needed;
- **Immediately** report the incident verbally to National Response Center **(800-424-8802)** and to the New York State Department of Environmental Conservation **(716-851-7220)** or the NYSDEC Hotline **(800-457-7362)** if off-site human health or environment are threatened or if there is a release of a hazardous substance that exceeds the CERCLA, SARA or NYS reportable quantity (RQ) in any 24-hour period.
- Report the incident to WMI corporate offices verbally at the time of the incident and submit a completed incident report form after the situation is controlled.
- In case of a RQ PCB spill, report the incident to the Regional Administrator of Region II; and
- Within 15 days, as required, a report of the incident will be made to the NYSDEC and to the EPA Regional office.
- Removal of surface impoundment from service for emergency repairs requires a written notification to the DEC within 7 days.
- Any release of hazardous waste to the environment from a tank system must be reported to the DEC within 24 hours unless the spill or leak is less than 1 pound (total) and was immediately cleaned up. A written report containing the items in 373-2.10 (g)(4)(iii) must be submitted within 30 days.

Modified: Dec. 2013

9.3 REPORTING REQUIREMENTS FOR OTHER RELEASES

Not all releases may require the implementation of the full contingency plan, however, each release must be assessed and the reporting requirements determined. Attachment 3 summarizes the reporting thresholds, who to report to and the required time frame under the various hazardous substance programs.

The following are the hazardous substances maintained in inventory at Model City which are controlled under SARA:

substance	Reportable Quantity under SARA III
Calcium Oxide	10,000 lbs.
Cement	10,000 lbs.
Ferrous Sulfate	1000 lbs.
Fuel Oil #2	10,000 lbs.
Gasoline	10,000 lbs.
Hydrochloric acid	5000 lbs.
Propane	10,000 lbs.
Sodium Hydroxide	1000 lbs.
Sulfuric acid	1000 lbs.

The RQ levels for some of these substances is listed in 40 CFR Part 302. For all other chemicals (based on OSHA), the minimum reporting threshold is 10,000 lbs. If a release of one of these materials exceeds the RQ and the material is released off-site, the Niagara County Local Emergency Planning Committee (LEPC), for S.A.R.A. Title III, must also be notified at (716) 438-3471.

10.0 AMENDMENTS TO CONTINGENCY PLAN

This Contingency Plan is subject to review and amendment, if:

1. The plan fails in an emergency;

2. The facility's permit is revised;

3. The facility changes in design, construction, operation, maintenance, or if other circumstances develop that materially increase the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or change the response necessary in any emergency;

4. The list of Emergency Coordinators changes; and

5. The list of emergency equipment changes substantially.

ATTACHMENT 1

LOCAL EMERGENCY AGENCIES GIVEN CONTINGENCY PLAN

According to 6NYCRR Part 373-2.4(d), "A copy of the contingency plan and all revisions to the plan must be: (1) maintained at the facility; and (2) submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services."

CWM has made arrangements with emergency providers to supply emergency services as required by 6NYCRR Part 373-2.3(g). Documentation is provided in this attachment, including written responses where received. No emergency provider has declined to enter such an agreement.

The Contingency Plan has been submitted to the following agencies:

Local Emergency Agencies Given Contingency Plan

1. Hockenberry, Sharon - Director Niagara Falls Memorial Medical Center 621 10th Street Niagara Falls, New York 14301 phone: 716-278-4000	10. Maness, Judith - President Mount St. Mary's Hospital 5300 Military Road Lewiston, New York 14092 716-297-4800
2. Cecula, John - CEO HazMat Group Lewiston Town Hall Lewiston, New York 14092 phone: 716-754-8213	11. Chief Lewiston Fire Company No. 1 145 N. 6th Street Lewiston, New York 14092 phone: 716-754-2180
3. Schultz, Jon - Chief Upper Mountain Fire Company - Escarpment Area 839 Moyer Road Lewiston, New York 14092 phone: 716-297-0330	12. On-Site Monitor CWM Chemical Services 1550 Balmer Road Model City, New York 14107 ext: 302
4. Schick, Robert New York State Department of Environmental Conservation 625 Broadway Albany, New York 12233-7011 phone: 518-402-9706	13. Orsi, Paul Sentrex Security Systems 1925 Pine Avenue Niagara Falls, New York 14301 phone: 716-285-5999
5. DeVald, James Niagara County Health Department 5467 Upper Mountain Road Lockport, NY 14094 phone: 716-439-7444	14. Niagara County Fire Coordinator and Director of Emergency Services P.O. Box 496, 5574 Niagara Street Extension Lockport, New York 14095 phone: 716-438-3171
6. Elia, Laurence Sevenson Environmental Services, Inc. 2749 Lockport Road, NF, NY 14305 716-284-0431	15. Rougeux, Peter - Station Commander New York State Police 4525 Witmer Road Niagara Falls, New York 14305 phone: 716-297-0755
7. Tower, Jeff - Chief Youngstown Volunteer Fire Company 625 Third Street Youngstown, New York 14174 phone: 716-745-3324	16. Weiss, Dennis New York State Department of Environmental Conservation Region 9 270 Michigan Avenue Buffalo, New York 14203-2999 phone: 716-851-7220
8.	17. Lockhart, Tim Chairman, Niagara County Emergency Management Office PO Box 496, 5526 Niagara Street Ext. Lockport, New York 14095 phone: 716-438-3176 or 716-278-4413
9. Hillman, Steve - Chief Ransomville Fire Company No. 1 2521 Youngstown-Lockport Road Ransomville, New York 14131 716-791-4411	18. Whitenight, David Sentrex Security Systems On-Site Main Gate Guardhouse ext: 0221

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. Harold Suitor, Chief
Youngstown Volunteer Fire Company
625 Third Street
Youngstown, New York 14174

Mr. Peter Rougeux, Station Commander
New York State Police
4525 Witmer Road
Niagara Falls, New York 14305

Re: Agreement to Provide Emergency Response Services

Dear Sirs:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to be a primary provider of emergency services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino
Permitting Manager
Model City Facility

X Yes, I agree to provide emergency services to CWM Model City Facility.
_____ No, I am unable to provide emergency services to CWM Model City Facility.

Signature: David J. Truesdale

Name: DAVID J. TRUESDALE Title: CHIEF

Organization: YOUNGSTOWN VOL FIRE COMP Date: 3-16-2000

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. Harold Suitor, Chief
Youngstown Volunteer Fire Company
625 Third Street
Youngstown, New York 14174

Mr. Peter Rougeux, Station Commander
New York State Police
4525 Witmer Road
Niagara Falls, New York 14305

Re: Agreement to Provide Emergency Response Services

Dear Sirs:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to be a primary provider of emergency services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino

John B. Hino
Permitting Manager
Model City Facility

_____ Yes, I agree to provide emergency services to CWM Model City Facility.
_____ No, I am unable to provide emergency services to CWM Model City Facility.

Signature: Sgt/SC Philip J. Bourque

Name: PHILIP J. BOURQUE Title: SGT. STATION Commander

Organization: NY STATE Police Date: 3/6/00

WASTE MANAGEMENT

CWM CHEMICAL SERVICES, LLC
1550 Balmer Road
PO Box 200
Model City, NY 14107
(716) 754-8231
(716) 754-0211 Fax

October 10, 2005

Ms. Sharon Hockenberry, Director
Niagara Falls Memorial Medical Center
621 10th Street
Niagara Falls, New York 14301

Re: Agreement to Provide Emergency Response Services

Dear Ms. Hockenberry:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response and/or clean up services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by October 24, 2005. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Jill A. Banaszak at (716) 754-0246 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B Hino

John B. Hino
Permitting Manager
Model City Facility

__X__ Yes, I agree to provide emergency services to CWM Model City Facility.
_____ No, I am unable to provide emergency services to CWM Model City Facility.

Signature: Sharon Hockenberry

Name: SHARON HOCKENBERRY Title: DIR OF OPERATIONS

Organization: NF OCC HEALTH Date: 10-11-05

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. James Volkosh
Niagara County Fire Coordinator
P.O. Box 496
Lockport, NY 14095

Re: Agreement to Provide Emergency Response Services

Dear Mr. Volkosh:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response and/or clean up services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino
Permitting Manager
Model City Facility

✓ Yes, I agree to provide emergency services to CWM Model City Facility.
_____ No, I am unable to provide emergency services to CWM Model City Facility.

Signature: James C Volkosh

Name: James C Volkosh Title: Fire Coordinator

Organization: Nia. Co. Fire Service Date: 4-18-00

APPROVED
NIAGARA COUNTY ATTORNEY
BY

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Angelo G. Calbone, President & CEO
Mr. ~~Henry Lobl, Administrator~~
Mount St. Mary's Hospital
5300 Military Road
Lewiston, NY 14092

Re: Agreement to Provide Emergency Response Services

Dear Mr. Lobl:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response and/or clean up services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino
Permitting Manager
Model City Facility

XX Yes, I agree to provide emergency services to CWM Model City Facility.
_____ No, I am unable to provide emergency services to CWM Model City Facility.

Signature: _____

Name: Angelo G. Calbone Title: President & CEO

Organization: Mount St. Mary's Hospital and Health Center Date: 03/07/00

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. Les Meyers
Lewiston Fire Company No. 1
145 N. 6th Street
Lewiston, NY 14092

Re: Agreement to Provide Emergency Response Services

Dear Mr. Meyers:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response and/or clean up services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino

John B. Hino
Permitting Manager
Model City Facility

X Yes, I agree to provide emergency services to CWM Model City Facility. upon request of Youngstown Fire Co

~~No, I am unable to provide emergency services to CWM Model City Facility.~~

Signature: Les Meyers

Name: Les Meyers Title: Chief

Organization: Lewiston Fire Co #1 Date: 3-6-00

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. Alan Elia
Sevenson Environmental
2749 Lockport Road
Niagara Falls, NY 14305

Re: Agreement to Provide Emergency Response Services

Dear Mr. Elia:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response and/or clean up services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino

John B. Hino
Permitting Manager
Model City Facility

✓ Yes, I agree to provide emergency services to CWM Model City Facility.
_____ No, I am unable to provide emergency services to CWM Model City Facility.

Signature: Lawrence A. Elia

Name: LAWRENCE A. ELIA Title: V.P.

Organization: Sevenson Industrial Services, Inc. Date: 3/6/00

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. John Mellenchuck
HazMat Group
Lewiston Town Hall
Ridge Road
Lewiston, NY 14094

Re: Agreement to Provide Emergency Response Services

Dear Mr. Mellencheck:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response and/or clean up services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino
Permitting Manager
Model City Facility

_____Yes, I agree to provide emergency services to CWM Model City Facility.
_____No, I am unable to provide emergency services to CWM Model City Facility.

Signature:_____

Name:_____Title:_____

Organization:_____Date:_____

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. Joe Passanese, Chief
Upper Mountain Fire Company
839 Moyer Road
Lewiston, NY 14092

Re: Agreement to Provide Emergency Response Services

Dear Mr. Passanese:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response and/or clean up services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino
Permitting Manager
Model City Facility

X Yes, I agree to provide emergency services to CWM Model City Facility. At the Request of Youngstown Fire Co.

~~No, I am unable to provide emergency services to CWM Model City Facility.~~

Signature: Joseph D. Passanese

Name: Joseph D. Passanese Title: Chief

Organization: Upper Mountain Fire Co. Date: 7 Mar 02

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. Todd Moltrup, Chief
Ransomville Fire Company No. 1
2521 Youngstown-Lockport Road
Ransomville, NY 14131

Re: Agreement to Provide Emergency Response Services

Dear Mr. Moltrup:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response ~~and/or clean up services~~ for this facility. *

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B Hino

John B. Hino
Permitting Manager
Model City Facility

* as determined by the Niagara County Mutual Aid Agreement

_____Yes, I agree to provide emergency services to CWM Model City Facility.
_____No, I am unable to provide emergency services to CWM Model City Facility.

Signature:_____

Name:_____Title:_____

Organization:_____Date:_____

WASTE MANAGEMENT, INC.
CWM Chemical Services, L.L.C.
1550 Balmer Rd.
P.O. Box 200
Model City, N.Y. 14107
716/754-8231

March 3, 2000

Mr. Norm Pearson
Niagara County Emergency Management Office
P.O. Box 496
5526 Niagara Street Ext.
Lockport, NY 14095

Re: Agreement to Provide Emergency Response Services

Dear Mr. Pearson:

It has come time to update and renew our agreements with local emergency response providers, as required by 6NYCRR 373-2.3(g), for the CWM Chemical Services, LLC, Model City Facility (CWM). CWM is requesting confirmation that your organization will continue to support the primary providers with emergency response and/or clean up services for this facility.

Your organization will continue to be supplied with information regarding the facility layout, properties of hazardous wastes handled and associated hazards as required by the above regulation and contained within the CWM Contingency Plan which has been distributed to you. Please contact the undersigned if additional information is needed or a site tour is desired.

Please complete the information below, sign, date and return to my attention by March 17, 2000. If for any reason you decline to participate in this agreement, please indicate such and return this letter by that date. Please call Ms. Rebecca Park Zayatz at (716) 754-0279 or myself at (716) 754-0278 if you have any questions or comments.

Sincerely,
CWM CHEMICAL SERVICES, LLC

John B. Hino
Permitting Manager
Model City Facility

_____Yes, I agree to provide emergency services to CWM Model City Facility.
_____No, I am unable to provide emergency services to CWM Model City Facility.

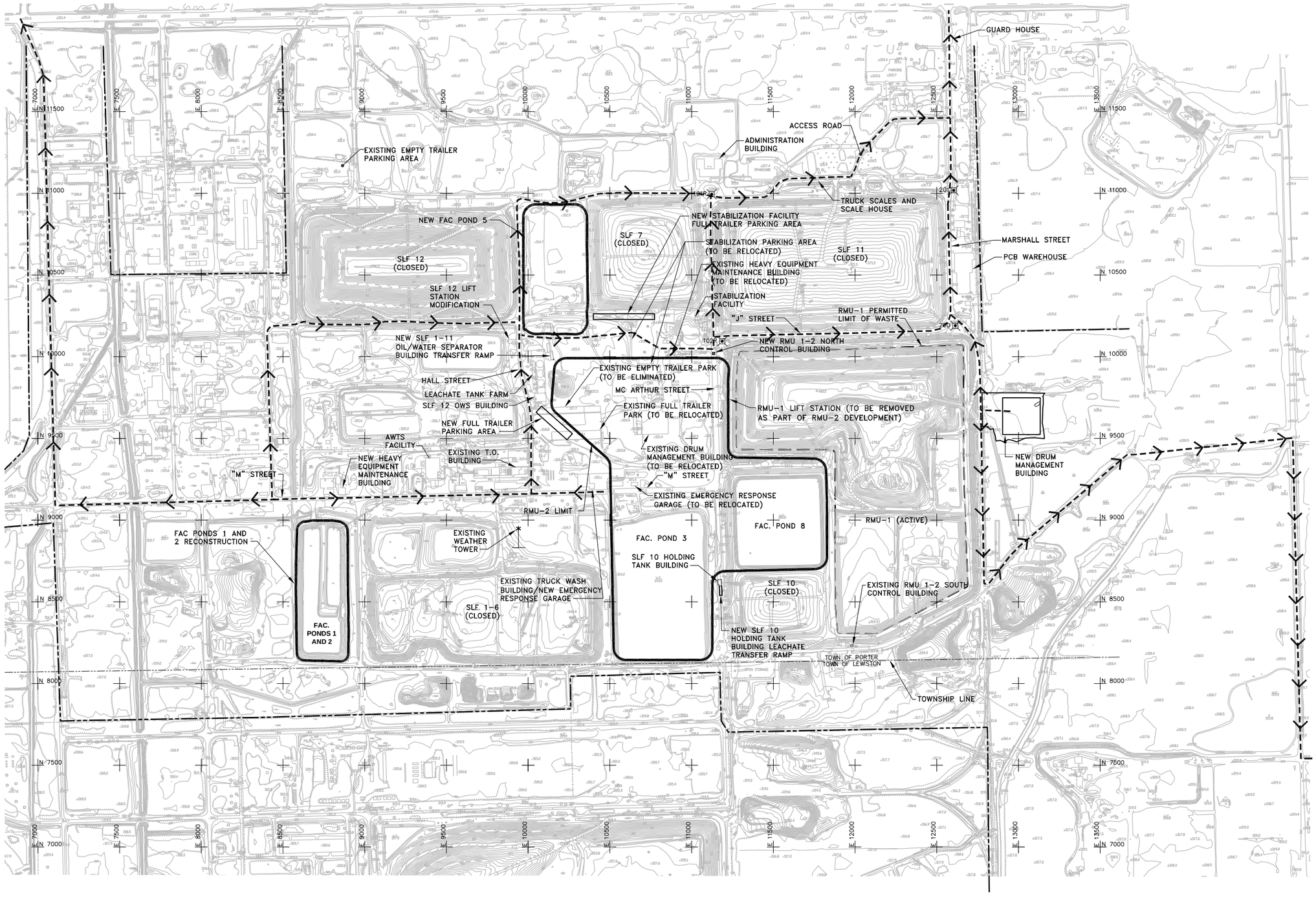
Signature:_____

Name:_____Title:_____

Organization:_____Date:_____

ATTACHMENT 2

EVACUATION ROUTES



LEGEND:

- BRUSHLINE
- CABLE MARKER
- CATCH BASIN
- DROP INLET
- FENCE
- FIRE HYDRANT
- GUARD RAIL
- LIGHT POLE
- MISCELLANEOUS POLE
- MONITORING WELL
- MONUMENT
- POST
- RAILROAD TRACKS
- 200 CONTROL MONUMENT
- SIGN
- SWAMP
- TRAFFIC LIGHT
- TREE
- TREELINE
- UNIDENTIFIED OBJECT
- UTILITY POLE
- VALVE
- WATER LINE
- EXISTING CONTOUR
- EXISTING GRADEBREAK
- PROPERTY LINE
- E 13500 N 7000 COORDINATE GRID
- EVACUATION ROUTE

300' 0 300' 600'
1"=300'

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

Professional Engineer's Name: **JOSEPH MOLINA**
Professional Engineer's No.: 072644

State	Date Signed	Project Mgr.
NY		WAR
Designed by: **BMS/NWF**	Drawn by: LAF	Checked by: BMS

ARCADIS OF NEW YORK, INC.

CWM CHEMICAL SERVICES, LLC • MODEL CITY, NEW YORK
CONTINGENCY PLAN

EVACUATION ROUTES

GENERAL

ARCADIS Project No.
B0023725.2009.00006

Date
SEPTEMBER 2011

ARCADIS of New York, Inc.
6723 Towpath Road
P.O. Box 66
Syracuse, New York
TEL. 315.446.91220

2-1

ATTACHMENT 3*

FEDERAL AND STATE RELEASE REPORTING REQUIREMENTS

* see CWM Environmental Manual, Appendix: Spill Manual, Attachment A

Reporting Requirements	SPDES	Clean Water Act Section 311	CERCLA Section 103	SARA Title III	RCRA Subtitle I, UST's	RCRA Subtitle J, Tanks; 6NYCRR 373-2.10	TSCA	DOT	Title 6 Chemical Bulk Storage 6NYCRR Part 595	Title 6 NYS, 6NYCRR Part 613.8
Substance	Any SPDES Discharge Parameter	Oil & Hazardous Substances listed in 40 CFR 116.4	Hazardous Substances listed in 40 CFR 302.4	EH's listed in 40 CFR 355.20 and CERCLA hazardous substances	Petroleum and CERCLA hazardous substances (Excludes RCRA hazardous wastes)	All RCRA Wastes	PCB containing material (greater than or equal to 50 ppm)	Hazardous Substances in Appendix A of 49 CFR 172	Phosphoric acid, sulfuric acid, ferrous sulfate and all substances listed in 6NYCRR 597.2	Petroleum bulk storage excluding RCRA haz. waste and non-reprocessed waste oil
Subjected Facilities	Model City	All facilities and vessels	All facilities and vessels, except consumer products in consumer use	All facilities that produce, use, or store OSHA hazardous chemicals	Facilities with an UST (Volume 10% or more beneath ground surface)	All TSDF's	All	During the Course of Transportation (includes loading, unloading, and storage incidental to transportation)	All facilities	Facilities with total storage of petroleum products > 1100 gal.
Subjected Releases	Release to Niagara River	Surface Water Discharge (see 40 CFR 110.1 - 110.10)	Release to Environment	Environmental release with the potential to expose off-site personnel	Groundwater, surface water, or subsurface soils	All releases into the environment which are not < 1 lb. and immediately contained and cleaned up	All PCB releases which directly contaminates surface waters, sewers, drinking water supplies, grazing lands, vegetable gardens, and PCB spills in excess of 10 lbs. of PCB not mentioned above.	See 49 CFR 171.15 and 171.16 or see RQ Guidance for complete list of circumstances	All releases to land or water or air outside secondary containment	Spill, leak or discharge to environment

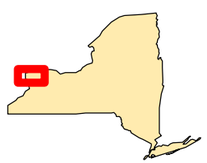
Reporting Thresholds	Any discharge parameter which is exceeded.	All oil discharges that form a sheen and all discharges > = the CERCLA RQ	Release > = the CERCLA RQ list	Release > = the CERCLA RQ listing or 1 lb. of an EHS not on the CERCLA list	All suspected or confirmed releases, spills > = CERCLA RQ, spills > 25 gallons or that result in a sheen	All environmental releases > = one pound	All PCB spills resulting in direct contamination of areas mentioned above	Two thresholds exist under DOT; first - the events occurring in items 1-9 of 171.15; second - the criteria in 171.16.	All suspected or confirmed releases, spills; spills greater > = RQ listed in 6NYCRR Part 597	All oil discharges (no diminimis amount)
WHO REPORTS	Person in charge	Person in charge	Person in charge	Owner or Operator	Owner or Operator	Responsible Person	Responsible Person	Carrier	Person Responsible	Any person
REPORT WHEN	orally within 24 hrs.	Immediately	Immediately	Immediately	Within 24 hours	Within 24 hours	Immediately upon discovery	As soon as possible if one of the 9 events in 171.15 occurs; within 30 days if one of the events in 171.16 occurs.	Within 2 hours of discovery	Within 2 hours
PHONE REPORT	Div. of Water, (518)-457-3790	DEC Monitors; DEC Htlne: 800-457-7362; DEC R9: 716-851-7220; Nat. Response Ctr: 800-424-8802; NCHD: 716-439-7444 (wkdy), 716-439-7430 (other)	DEC Monitors; DEC Htlne: 800-457-7362; DEC R9: 716-851-7220; Nat. Response Ctr: 800-424-8802; NCHD: 716-439-7444 (wkdy), 716-439-7430 (other)	SERC or LEPC	Implementing Agency	DEC Monitors; DEC Htlne: 800-457-7362; DEC R9: 716-851-7220; Nat. Response Ctr: 800-424-8802; NCHD: 716-439-7444 (wkdy), 716-439-7430 (other)	EPA Regional Office (David Greenlaw, EPA Region II at 731-906-6817) of Pesticides and Toxic Substances Branch	NRC: 800-424-8802, LEPC or SEPC or 911	DEC Monitors; DEC Htlne: 800-457-7362; DEC R9: 716-851-7220; Nat. Response Ctr: 800-424-8802 (if federal RQ); NCHD: 716-439-7444 (wkdy), 716-439-7430 (other)	DEC Hotline: 800-457-7362
Written Report	YES	NO	NO	Yes: to LEPC and SEPC	NO	YES: Regional Adm. or Authorized Agency	NO	YES: USDOT	YES: DEC, NRC, NCHD	NO
Written Report Due	**within 5 days**	**N/A**	**N/A**	**As soon as practical**	**N/A**	**Within 30 days**	**N/A**	**Within 30 days**	**Within 14 days**	**N/A**

ATTACHMENT 4

REGIONAL AND SITE LOCATION MAPS

NOTES:

1. PROPERTY LINES ARE APPROXIMATE.
2. NO DRINKING WATER WELLS EXIST WITHIN 1/4 MILE OF THE FACILITY.
3. THE TREATED EFFLUENT DISCHARGE IS LOCATED AT THE NIAGARA RIVER.
4. 710 TOTAL ACRES.
5. 630 RCRA PERMITTED ACRES.



AREA LOCATION

0 5 10
MILES
GRAPHIC SCALE

CWM CHEMICAL SERIVCES, LLC
MODEL CITY, NEW YORK

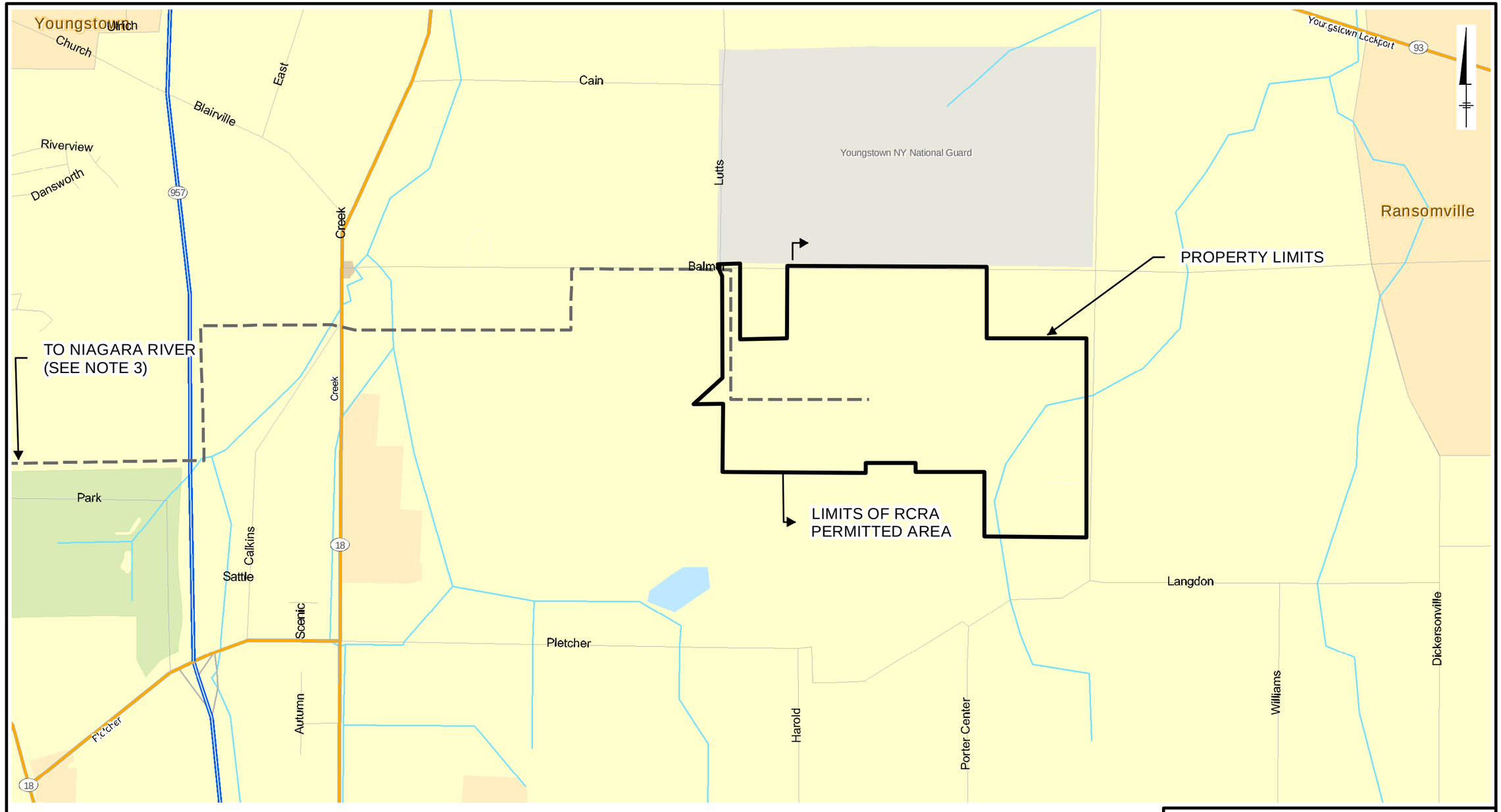
6NYCRR PART 373 PERMIT APPLICATION

REGIONAL LOCATION OF MODEL CITY

ARCADIS

FIGURE 1

CITY: CLE DIV/GROUP: AIT 40 DB: L.GREENE LD: EAL PIC: WP PM: TM: GNG TR:
MODEL CITY 23725.003
Friday, June 19, 2009 1:37:16 PM
G:\enviro\Common\GIS\CWM\Model City\RevisionsTo373mxd\FacilityLocationDetail_regional_373.mxd



NOTES:

1. PROPERTY LINES ARE APPROXIMATE.
2. NO DRINKING WATER WELLS EXIST WITHIN 1/4 MILE OF THE FACILITY.
3. THE TREATED EFFLUENT DISCHARGE IS LOCATED AT THE NIAGARA RIVER.
4. 710 TOTAL ACRES.
5. 630 RCRA PERMITTED ACRES.

AREA LOCATION

0 2,000 4,000

FEET

GRAPHIC SCALE

CWM CHEMICAL SERIVCES, LLC
MODEL CITY, NEW YORK

6NYCRR PART 373 PERMIT APPLICATION

FACILITY LOCATION DETAIL

ARCADIS

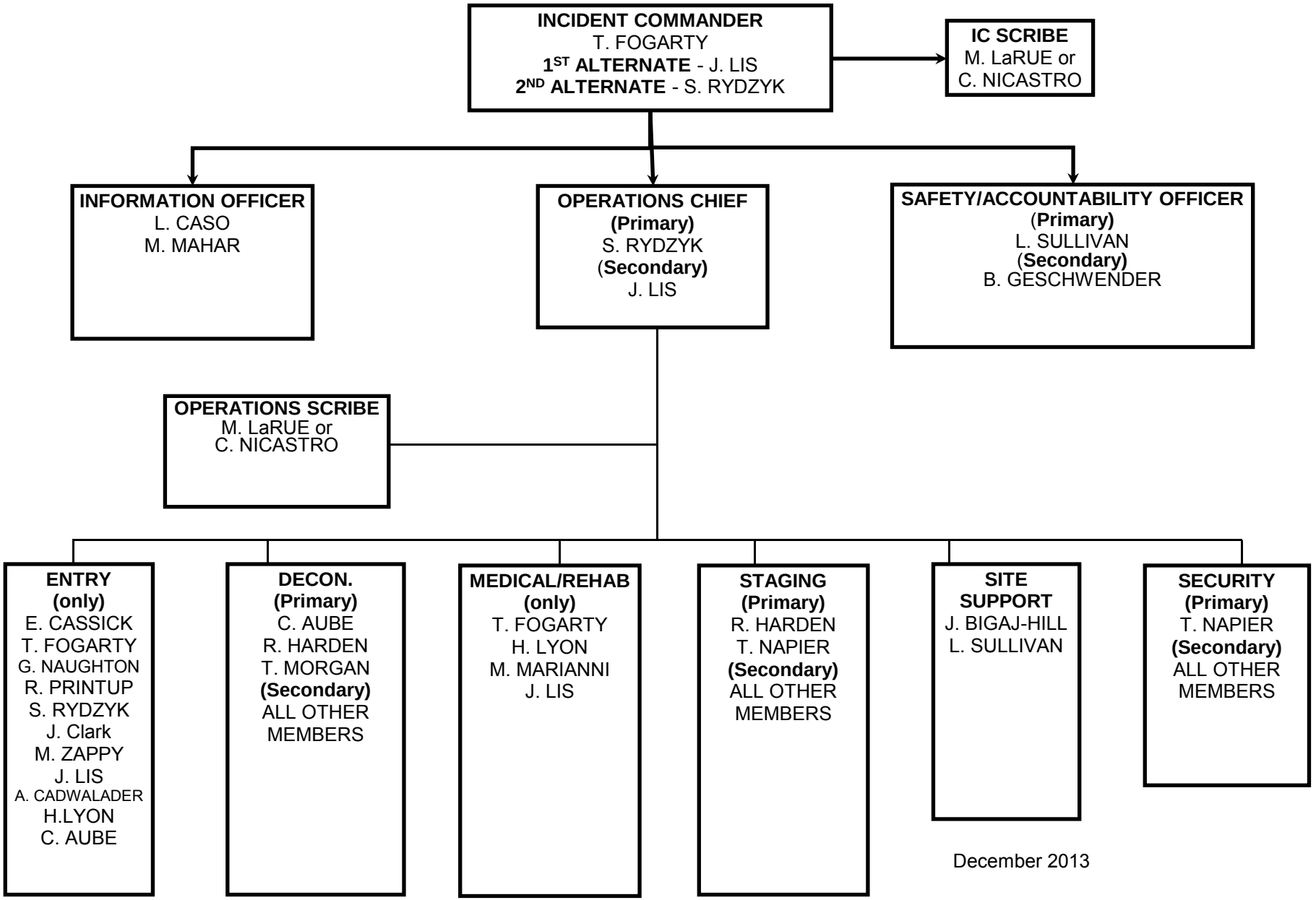
FIGURE
2

CITY: CLE DIV/GROUP: AIT 40 DB: LGREENE LD: EAL PIC: WP PM: TM: GNG TR:
MODEL CITY 23725.003
Friday, June 19, 2009 1:33:29 PM
G:\enviro\Common\GIS\CWM\ModelCity\RevisionsToDEIS\mxd\FacilityLocationDetail_B-2.mxd

ATTACHMENT 5

EMERGENCY RESPONSE TEAM ORGANIZATIONAL CHART

EMERGENCY RESPONSE TEAM
ORGANIZATIONAL CHART



December 2013

ATTACHMENT H

No Modifications Proposed

TRAINING PLAN

CWM CHEMICAL SERVICES, LLC

MODEL CITY FACILITY

MODEL CITY, NEW YORK

March 1998

Revised: July 2013

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDIXES

1.0 INTRODUCTION

In accordance with the State of New York and Federal regulatory requirements found in 6NYCRR 373-2.2(h) and 40 CFR 264.16 respectively, CWM Chemical Services, LLC, (CWM) has developed this Training Plan as an integral part of the Part 373 Permit for the Model City Facility, which is located in Niagara County, New York. A copy of this plan is available at the Facility at all times and will be reviewed annually.

This program will be directed by the Technical Manager who is trained in hazardous waste management procedures. The Technical Manager may use other site staff (e.g. Emergency Coordinator, Safety Specialist) and outside contractors to assist in the training and administration of this program.

Training is essential for the efficient and safe operation of all facility processes, and to ensure effective responses to emergency conditions. It is CWM's policy that all employees be trained to perform in a manner which emphasizes accident prevention to safeguard human health and protection of the environment.

1.1 GENERAL TRAINING CONCEPT

Each new employee is trained in the general orientation and operation of the Facility. A training program related to the specific duties of each job function is tailored specifically for the position.

No employee is permitted to work under reduced supervision until it has been determined that the employee has successfully completed all elements of the initial training requirements and has been trained to perform such task(s). This orientation training will be completed within 6 months of the new employee's entry into a specific job. In addition, every employee will participate in continuing training to maintain proficiency and to learn new techniques and procedures.

1.2 PROGRAM IMPLEMENTATION

Implementation of the training program encompasses:

* Identification of training requirements
* Identification of qualified instructors
* Delivery of training
* Employee testing / performance evaluation
* Documentation of training sessions

Qualified instructors participate in development of the training program's content and format.

2.0 POSITION (JOB) DESCRIPTIONS

Training is tailored to prepare the employee to safely and effectively perform the functions of the position and to ensure that the employee will be able to respond effectively to emergency situations at the facility. Job descriptions are the foundation for designing specific training programs because they identify the responsibilities and duties of each position.

2.1 FACILITY ORGANIZATION

The primary function of the CWM Model City Facility is hazardous waste management (i.e., treatment, storage, and disposal). In addition, associated business activities include general management functions performed by technical support personnel (e.g., laboratory chemists, engineers, etc.), and administrative staff (e.g., financial, clerical, etc.).

2.2 STAFF POSITIONS

A position description, including basic function, duties, responsibilities and required qualifications, is maintained at the facility's main office for each position as required by 40 CFR Part 264 and 6NYCRR Subpart 373-2. An example of a position description is displayed in Appendix A. A current list of job titles relevant to hazardous waste management and the name of the employee filling each respective position is also maintained at the main office.

The Facility organization and position descriptions may be changed from time to time, based on business demands and opportunities. Updated organization charts are submitted in accordance with Model City's Part 373 Site Permit.

3.0 TRAINING PROGRAM

All personnel employed at the Model City Facility undergo continuing training pursuant to the Training Plan. All new operations employees are introduced to the full training and qualifications process illustrated in Figure 3-1 and discussed herein.

3.1 SCOPE OF TRAINING FOR NEW PERSONNEL

New employees will undergo introductory training composed of general training and job-specific training to varying degrees. The amount of training an employee receives depends on his / her job duties, responsibilities, and the employee's competence based on prior experience. The scope of the introductory training program is defined in this section. Moreover, the method for determining the amount of training that a specific new employee will receive is explained in Section 3.2.4 herein.

3.1.1 General Training

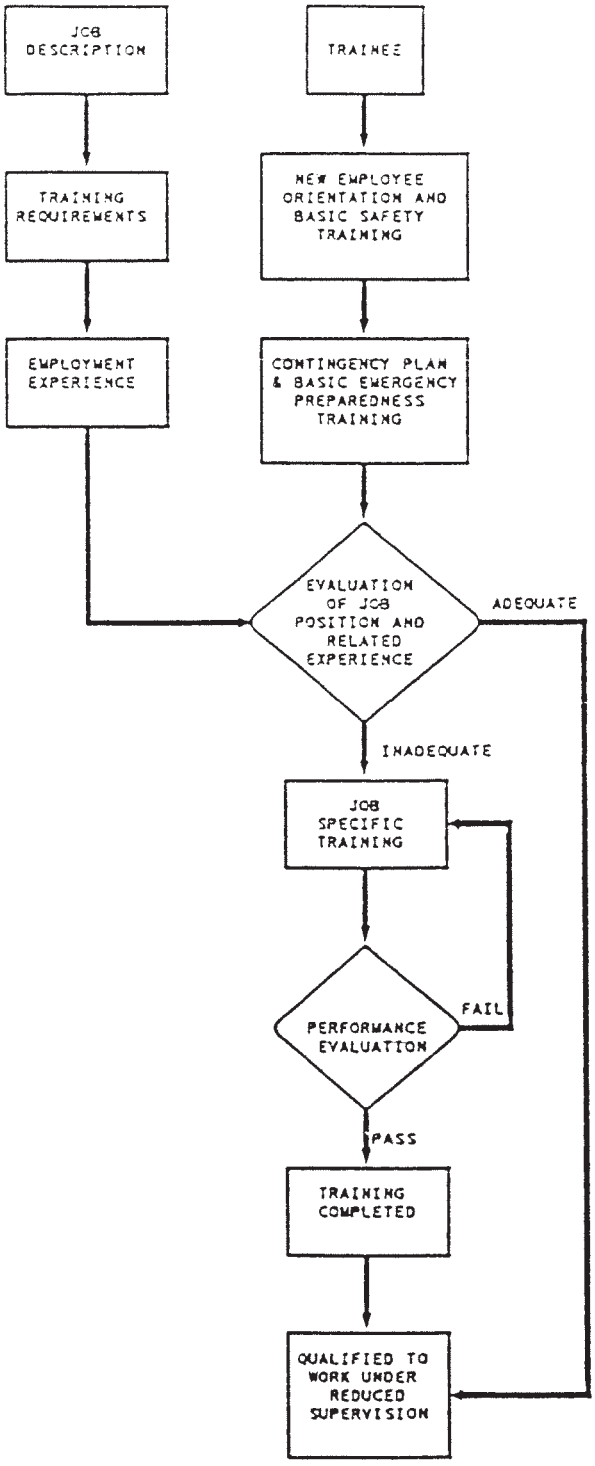
All trainees complete training on a series of topics to familiarize them with the facility, the contingency plan, and basic emergency response skills. These courses ensure that trainees have basic skills to protect themselves and perform their duties in a way that ensures the facility's compliance.

3.1.1.1 New Employee Orientation and Basic Safety Training

All new employees undergo an orientation and basic safety training session within six months after their date of employment or assignment to the facility to introduce them to the company, the management and operations of the facility, the contingency plan appropriate for their work area, and basic health and safety skills.

FIGURE 3-1

TRAINING PROGRAM FLOW DIAGRAM



3.1.1.2 Contingency Plan Training

As required by 6NYCRR 373-2.2(h)(1)(iii), all facility personnel having personal involvement with any hazardous waste management activities are trained to respond effectively to emergencies. Each trainee is familiarized with the facility's Contingency Plan during his or her orientation and basic safety training session. Training in emergency procedures is provided by the facility's Emergency Coordinator or other qualified trainers. The extent of the training is determined by the employee's position. Refer to Appendix C for an example list of potential training topics. A listing of job titles and job descriptions with corresponding training requirements is maintained at the facility. Training may include:

* Possible emergency situations and response techniques
* Duties of the Emergency Coordinator and others
* Emergency communication and alarm systems
* Evacuation procedures and routes
* Locations of emergency equipment such as telephones, radios, alarms, first aid stations, eye wash stations, safety showers, fire fighting equipment, etc.
* Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment.
* Incident/action reporting mechanism(s) and use of emergency extension 0200
* Operational shut down

3.1.1.3 Basic Emergency Response and Preparedness Training

The facility holds at least one emergency evacuation exercise per year to practice evacuation of the facility. This exercise gives management and any new employees an opportunity to check the new employee's recall of the alarm system and the evacuation routes. The emergency evacuation procedures will be covered as part of the employee's orientation.

CWM Model City also has an emergency response team. The team is trained on response to hazards inherent to the facility. The Emergency Coordinator and Safety Specialist maintain the team professionally through continuous training including simulated emergencies.

3.1.2 Job-Specific Training

After completing general training, new employees are instructed in the specific needs of their job functions to ensure work is performed safely and in accordance with applicable regulations. For employees who directly handle or supervise hazardous waste activities, a list of job specific training tasks is prepared for each job position by the appropriate supervisor. The Training Coordinator assist supervisors in preparing the departmental job task list by position by using the job description and knowledge of the operations.

A typical departmental Job Specific Training Task List by job position is presented in Appendix C. These documents will be maintained at the facility.

The job specific task lists are prepared by the supervisors. These lists are used to train employees filling the positions. This system is designed to be updated as new equipment and activities are introduced. An employee may not perform a task under reduced supervision unless he or she passes an evaluation by a qualified individual.

3.2 TRAINING PROGRAM ADMINISTRATION

The selection of qualified instructors, the use of effective training formats and the evaluation of an employee's learning are critical. These considerations, as addressed at the Model City Facility, are described below.

3.2.1 Training Personnel Qualifications

Designated individuals will conduct specific portions of the training program. The trainers are recognized consultants or in-house specialists in the specific fields being taught and have extensive experience in hazardous waste management, safety and environmental requirements. Training may be conducted by an immediate supervisor, department manager, training coordinator, skilled employee, or any other qualified person.

3.2.2 Training Formats

Training may be conducted in classroom meetings, small discussion groups, in-field exercises, emergency drills, at an employee's work station (i.e., on-the-job), in on-line computer courses or webinars. These activities may be supplemented by reading, problem sets, and other teaching aids. For some training, courses and teaching materials developed by an outside vendor are used, either by arranging for the course to be presented on-site or by sending employees to the vendor's training sessions. Safety and environmental training topics and materials may be provided by Waste Management (WM). Courses may be assigned through the WM University computer system. Field demonstrations and practice sessions reinforce skills and promote safety awareness.

The employee's supervisor is responsible for job specific (on-the-job) training to assure that the employee learns correct procedures and can perform them accurately, reliably, efficiently and in compliance.

3.2.3 Training Effectiveness Evaluation

Training effectiveness may be measured by written or oral examinations, or by performance evaluations. The training coordinator and the trainee's immediate supervisor must maintain the training records to document that an employee has successfully completed the necessary training.

3.2.4 Qualification of Trainees for Work Under Reduced Supervision

No employee will perform work under reduced supervision at the facility until he or she has been qualified. Qualification is earned through successful completion of the general training and job specific training, based on the training requirements for the position and the trainee's prior education, experience and skills.

The trainee's supervisor evaluates the amount of job-specific training a new employee needs in addition to the general training requirements. This determination is made by comparing the employee's records of employment with the job description and its training lists. Based on this comparison, the necessary job-specific and special skills courses for an employee are scheduled.

The employee's Training History Record or Job Specific Training Record are updated as the employee completes the required training. Periodically, this record is reviewed to evaluate the employee's training completion status. This periodic evaluation continues until all of the required training has been successfully completed.

Some of the training requirements may be waived by the Program Administrator or designee, if an employee can demonstrate prior competence. Proof of competence may consist of transcripts from academic institutions, certificates of course completion, demonstrated job experience or skill or the passage of a performance evaluation test such as a written examination.

3.2.5 Trainee Feedback

Trainee comments and constructive criticism of the training program are encouraged throughout the entire training process. Such comments are used by the trainers to modify/improve training program scope, content and/or format as appropriate.

3.3 CONTINUING TRAINING

An employee's training does not end with his/her initial qualification. Periodic "refresher" training is required and provided, as discussed herein.

3.3.1 Continuing Training

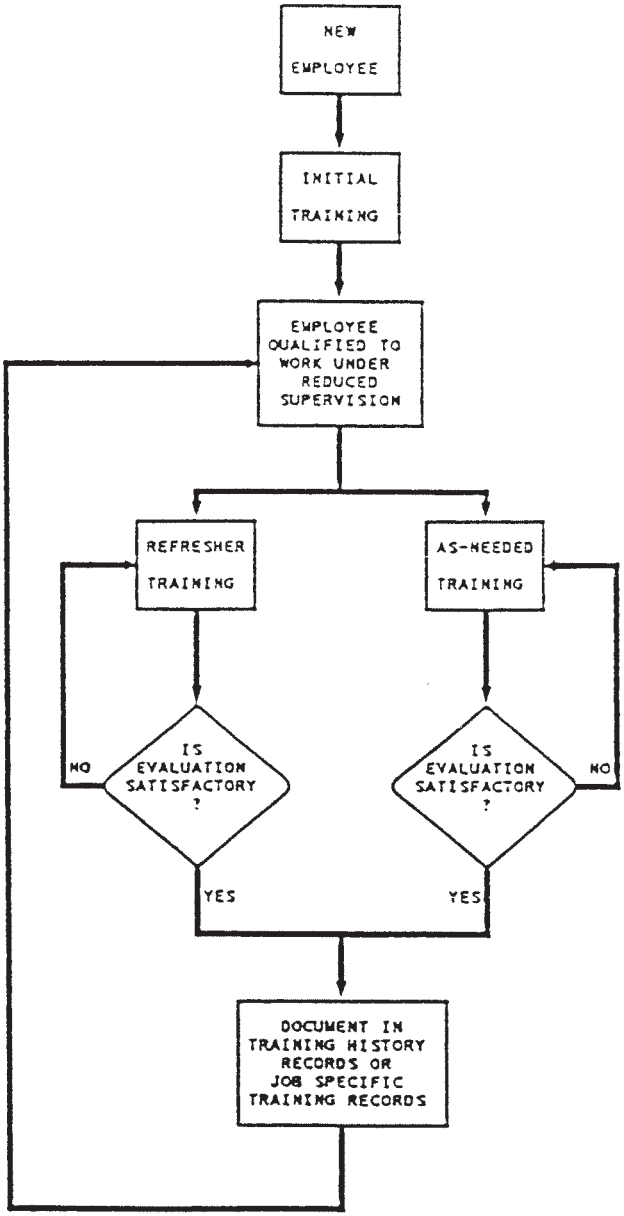
As required by 6NYCRR 373-2.2(h)(3), annual refresher training is performed on responding to emergencies (see Section 3.1.1.2). Continuing training is also provided to maintain proficiency in job skills, increase safety, ensure compliance, and teach new skills. Such topics may consist of:

* Health and Safety
* Environmental
* Emergency Preparedness
* Regulatory
* Job Specific
* Operational

This continuing training program is depicted in the flow diagram in Figure 3-3.

FIGURE 3-3

CONTINUING TRAINING FLOW DIAGRAM



3.4 DOCUMENTATION OF TRAINING

Training records are maintained at the facility. They include a written description of the content of training sessions, identify attendee(s) and trainer(s), and record of the signatures of trainer(s) and attendee(s), thus certifying that the training was accomplished.

Each employee has a Training History Record file and Job Specific Training Record file (for employees who directly handle or supervise hazardous waste activities) on-site that contains appropriate documentation that the training has been completed satisfactorily. Training documentation for current employees will be maintained at the facility until closure. An employee's training history record files will be sent to the general manager of any other facility owned/operated by WM to which the employee may be transferred. Training files of employees who leave the employment of WM will be retained for 3 years at the last facility where they worked.

4.0 TRAINING FOR OUTSIDE CONTRACTORS

CWM is dedicated to ensuring the safety and well being of the outside contractors that work at the facility as well as its employees. All outside contractors performing work on-site must review the facility's "Safety Procedures and Requirements for Outside Contractors". An authorized representative of the contractor is required to sign the safety declaration that they will comply with these policies and requirements, and with all local, state and federal laws and regulations while performing work at CWM.

Appendix A

#380.013

CWM CHEMICAL SERVICES, L.L.C.

POSITION DESCRIPTION

POSITION TITLE: Heavy Equipment Operator

DATE PREPARED: 02/98

REPORTS TO: Landfill Supervisor

DIV./DEPT: 658/380

INCUMBENT:

REGION: WMI New York
CWM Chemical Services
Model City, NY

BASIC POSITION FUNCTION:

a) Responsible for operating heavy equipment including excavator, backhoe, pay loader, fork truck and/or other company owned or leased equipment.

b) Operate material handling and processing equipment as required to achieve the safe, cost-effective and environmentally compliance operation of the Facility.

c) Maintain all material handling and process equipment in a clean and mechanically ready condition.

PRINCIPAL RESPONSIBILITIES: (This list is not intended to be all encompassing and other duties may be assigned.

a) Operate equipment in accordance with all safety rules, manufacturer's instructions, and CWM Operating Procedures.

b) Direct trucks to proper unloading, loading, and staging locations.

c) Other related duties as assigned by the Supervisor.

POSITION DIMENSIONS:

Education/Experience: (The following requirements are typical but may be obtained through on-the-job training, etc.)

a) High school graduate.

b) 3-5 years heavy equipment/chemical processing operator experience.

c) Previous related experience in handling and stabilization of hazardous/non-hazardous waste.

CWM POSITION DESCRIPTION

POSITION TITLE: Heavy Equipment Operator - Grounds

Education/Experience (cont):

d) Should be familiar with RCRA and OSHA safety regulations.

e) Must be able to operate heavy construction equipment including pay loader, backhoe, excavator, fork truck and other company owned or leased equipment.

f) Must have physical and mental ability to carry out written and verbal instructions.

g) Qualifications of any employee with be determined by the Company/

Internal/External Contacts:

CWM employees, Supervisors, Managers

Budgetary/Financial Responsibility:

N/A

Organizational Relationships:

Reports to the Landfill Supervisor who reports to the Plant Operations Manager who reports to the Division President.

FOR HUMAN RESOURCES USE ONLY:

POSITION CODE: EEO CODE: SALARY GRADE:

APPROVED BY: DATE:

APPROVED BY: DATE:

CWM Chemical Services, L.L.C.

New York Region
1550 Balmer Road
P. O. Box 200
Model City, New York 14107-0200
716/754-8231

MASTER COURSE LISTING

COURSE TITLE

Asbestos/Employee Information & Training

Bloodborne Pathogens/Information & Training

Cadmium/Employee Information & Training

Cardiopulmonary Resuscitation (CPR)

Contingency/SPCC Plan

Contracts Compliance

Evacuation Drill

First Aid

Hazardous Communication (Right to Know)/Employee Overview

Hazardous Materials Transportation Act/Training

Hazwoper/Emergency Response Program - Training

Hazwoper/TSD Facilities

Lead/Training Program

Occupational Exposure to Hazardous Chemicals in Laboratories

Occupational Noise Exposure/Training Program

Permit-Required Confined Space/Attendants & Entrants

Permit-Required Confined Space/Entry Supervisor

COURSE TITLE

Permit-Required Confined Space/Rescue & Emergency Services

Portable Fire Extinguishers/Training and Education

RCRA/.Hazardous Waste Personnel Training

Respiratory Fit Test

Site Orientation

The Control of Hazardous Energy (Lockout/Tagout)/All Employees

APPENDIX B

Formerly Appendix C

JOB SPECIFIC TRAINING TRACKING FORM

POSITION: Landfill/Grounds - Heavy Equipment Operator

NAME:_____ Employee SS#_____

PRIMARY FUNCTION: ___YES ___NO CROSS TRAINING: ___YES ___NO

TASK LIST	P.M. DATE	SUPERVISOR'S INITIALS
Compactor-roller		
Payloader		
Bulldozer		
Integrated tool carrier		
Excavator/backhoe		
Utility/backhoe (466)		
Gradall excavator		
Rigging		
Excavator crane use		
Excavator trailer/box digout		
Interim storage		
Decon of equipment		
Landfill orientation		
Special Handling (red/green flagged loads)		
RMU-1 operations manual		
Vehicle log inspection		
Asbestos handling		
Prevention of truck overturn		
Haz Comm/Profile		

Appendix C

TRAINING TOPICS

Subject	Agency	Training required for:
Contingency Plan	EPA/DEC	All operations personnel
Emergency Response Plan	OSHA	All operations personnel
Hazard Communication	OSHA	All operations personnel
Medical Surveillance Program	OSHA	All operations personnel
Hearing Conservation	OSHA	All operations personnel
Carcinogens	OSHA	All operations personnel
Portable Fire Extinguishers	OSHA	All operations personnel
Respiratory Protection Program	OSHA	All operations personnel
		Additional training for employees required to Wear a respirator
Confined Space	OSHA	All operations – awareness
		Additional training for employees performing Confined space activities
Lock out/Tag out	OSHA	All operations – awareness
		Additional training for employees performing LOTO activities
Personal Protective Equipment	OSHA	All operations – awareness
		Additional training for employees required to wear PPE

Training Requirements by Job Title

August 13, 1997

JOB TITLE: Heavy Equipment Operator

COURSES TO TAKE	AGENCY	RETRAINING REQUIRED-Y/N	FREQUENCY (months)
Cadmium / Employee Information & Training	OSHA	Y	12
Contingency/SPCC plan	EPA	Y	12
DOT Emergency Response Guidebook	General	Y	12
Evacuation Drill	OSHA	Y	12
HAZWOPER / TSD Facilities	OSHA	Y	12
Lead / Training Program	OSHA	N	0
Medical Exam C	OSHA	Y	24
Occupational Noise Exposure / Training Program	OSHA	N	0
Portable Fire Extinguishers / Training and Education	OSHA	Y	12
RCRA / Hazardous Waste Personnel Training	EPA	Y	12
Respiratory Fit Test	OSHA	Y	12
Site Orientation	General	N	0

ATTACHMENT I

Application Section I – Closure Plans & Post-Closure Plans

(proposed modified pages are designated with a November 2013 revision date at the bottom of the respective page)

(no changes proposed to RMU-1 Closure Plan, RMU-1 Post-Closure Plan, or the Sitewide Post-Closure Plan)

SECTION I.1

RMU-2 Closure Plan

ARCADIS
Infrastructure, environment, buildings

Imagine the result

WASTE MANAGEMENT, INC.

CWM Chemical Services, LLC

Closure Plan

Residuals Management Unit 2

Model City Facility
1550 Balmer Road
Model City, Niagara County, New York

April 2003
Revised August 2009
Revised February 2013

ARCADIS

Residuals Management Unit 2
Closure Plan

April 2003
Revised August 2009
Revised February 2013

ARCADIS

Residuals Management Unit 2
Closure Plan

April 2003
Revised August 2009
Revised February 2013

1. Closure Procedures and Activities

1.1 Introduction

This Closure Plan for Residuals Management Unit 2 (RMU-2) is divided into a partial closure plan for one, two, three, four and five cells and one final closure plan for the entire unit, consisting of six cells. Each closure plan depicts the closure of RMU-2 at certain successive stages of its development. Partial closure plans and associated cost estimates have been developed depicting closure after one, two, three, four and five cells, and a final closure plan and cost estimate has been developed that depicts closure after the construction of six cells.

This Closure Plan for RMU-2 has been developed in accordance with the requirements of 6 New York Codes, Rules and Regulations (NYCRR) Subpart 373-2, Sections 373-2.7, 373-2.8 and 373-2.14(g). Written cost estimates for each partial closure plan and the overall closure of the unit are being submitted separately.

Furthermore, each closure plan presented herein depicts the closure of the landfill cells at the point when those cells are at their maximum waste capacity, in accordance with 6 NYCRR 373-2.8(c)(1)(i). The partial closure plan will serve to illustrate how RMU-2 would be closed if landfill cell development were to be halted at various points prior to the construction of all six cells.

1.2 Closure Performance Standard

In accordance with 6 NYCRR 373-2.7(b), this Closure Plan is designed to provide that the facility will require minimal maintenance and controls, will minimize or eliminate threats to human health and the environment and will prevent the escape of hazardous wastes or hazardous waste constituents, leachate, contaminated rainfall or waste decomposition products to the ground, surface water or to the atmosphere.

The following sections discuss in detail the procedures and actions that will be taken in order to satisfy the closure performance standard.

CWM Chemical Services, LLC (CWM) will achieve this standard of closure by the removal or disposal of all unprocessed hazardous wastes and hazardous waste residues from waste management areas other than land disposal units, by the decontamination and removal of all process and associated equipment and by regrading all hazardous waste process areas subsequent to closure. These areas will

be covered with clay-rich soils and vegetated following the completion of all other closure activities.

During the unit's operational lifetime, conditions or operations may be modified such that this Closure Plan will require changes. The general manager, or his designated representative, will be responsible for maintaining and updating this Closure Plan. The general manager may be contacted at the following address and telephone number:

Mr. Michael Mahar
District Manager
CWM Chemical Services, LLC
1550 Balmer Road
Model City, New York 14107
(716) 286-0241

At least one copy of the approved Closure Plan and all revisions to the plan will be maintained on site until closure is completed and certified. CWM will amend or revise the Closure Plan whenever there are significant changes in the operating plans or facility design that will affect the plan, or whenever there is a change in the expected year of facility closure. The closure cost estimate will be updated annually.

1.2.1 Closure Policies

This Closure Plan for RMU-2 is based on the closure performance standards for the entire Model City Facility. A summary of the overall site closure scenario is presented, as well as the specific closure scenario for RMU-2. Basic closure policies for these scenarios are as follows:

- All untreated hazardous wastes remaining on site will be treated on site using available treatment operations, disposed on site in the secure unit, if possible, or shipped off site to an approved hazardous waste management facility. In the case of polychlorinated biphenyl (PCB) wastes, any wastes that must be shipped off site will go to a facility approved by the United States Environmental Protection Agency (USEPA) for the incineration, treatment or disposal of such wastes.

- All heavy equipment directly related to operation of the unit (e.g., trucks, draglines, front-end loaders, bulldozers, backhoes) will be cleaned and moved for use at another site, sold or returned to the supplier.

- The main road and parking areas serving the landfill will be thoroughly swept, and the sweepings will be landfilled on site, if possible, or sent off site for disposal.

- All buildings and equipment to be decontaminated will be cleaned by thorough washing with a high-pressure stream of water. Detergents or solvents may be added, as necessary, to enhance decontamination. The washdown will be followed by a rinse using a high-pressure stream of water and/or steam cleaning. Rented mobile equipment will be taken to the Truck Wash Facility for cleaning and decontamination. Moveable equipment that will be removed from PCB operations areas for salvage, resale or relocation to another site will be decontaminated in accordance with 40 Code of Federal Regulations 761.79(b) or as alternatively approved by the USEPA.

- Decontamination will be deemed complete after sampling and analysis of rinsewaters or PCB wipe samples, as required, to confirm that hazardous constituents are no longer present above regulated levels.

- All contaminated stormwater in the secondary containment areas will be removed and processed in the on-site aqueous waste treatment system or sent off site.

- All hazardous waste disposal sites will be contoured and revegetated, as necessary, to prevent wind erosion and ponding of precipitation and runoff.

- As required by 6 NYCRR 373-2.7(b) and 6 NYCRR 373-2.14(g), CWM will take all necessary steps to prevent the occurrence of threats to human health and the environment during the time between the last receipt of wastes and approval of the closure certification.

1.3 Partial and Final Closure of the Model City Facility

The Closure Plan for RMU-2 is presented in the subsequent sections of this document. The closure schedule for RMU-2 is provided in Section 1.8. In accordance with 6 NYCRR 373-2.7(d)(1), treatment, removal and disposal of all hazardous wastes must occur within 90 days after receipt of the final volume of hazardous wastes. Total estimated time for closing RMU-2 based on the worst-case scenario is 180 days. If weather conditions make closure within 180 days difficult, CWM will petition the

Commissioner of the New York Department of Environmental Conservation (NYSDEC) for an extension.

The year 2041 is projected as the final closure date for the entire Model City Facility, except for essential processes, such as a portion of the aqueous waste treatment system, which will be retained for post-closure leachate management and treatment, unless suitable off-site treatment is located. Partial closure of existing hazardous waste management units during normal operational periods at the Model City Facility will utilize on-site and off-site treatment and/or disposal operations. CWM will notify the Commissioner of the NYSDEC at least 60 days prior to initiating any landfill closure activities or final closure of the facility.

1.4 RMU-2 Waste Inventory

The total gross waste volume capacity of RMU-2 is estimated to be approximately 4,030,700 cubic yards, and the net waste volume capacity of RMU-2 is estimated to be approximately 3,934,000 cubic yards after adjusting for cell separation berms, daily and intermediate cover, structural fill and access roads (see Section 5).

1.5 Inventory Removal, Disposal or Decontamination of Equipment

All buildings and equipment to be decontaminated will be cleaned by thorough washing with a high-pressure stream of water, or steam cleaning. Detergents or other cleaning additives may be added to the water, as necessary, to enhance decontamination. Washwaters determined to be hazardous by laboratory analysis will be collected and treated on site in the aqueous treatment system or shipped off site for treatment.

Outside contractors will provide their own personnel protective gear. All Model City Facility personnel involved in the decontamination of the process facilities will be provided with protective equipment, such as acid/solvent-resistant splash suits and hoods, steel-toe shoes and rubber boots rubber gloves and self-contained breathing apparatus or full-face respirator, as determined by the Site Safety Manager. In addition, wrists and ankles will be taped to protect against splashes. Facilities also will be provided for personnel decontamination at the completion of each work interval.

1.6 Closure and Partial Closure of RMU-2

This section provides the closure procedures for RMU-2 and was prepared using the following closure scenarios:

- This Closure Plan depicts final closure after the completion and filling of six cells. As individual cells are filled to capacity, a final cap may be installed on those cells and progressed forward as additional cells are filled.

- Because construction of RMU-2 will be completed over several years, it is possible that landfill development could be stopped and closure of the unit could occur prior to the six cells being constructed. Partial closure plans have been developed depicting closure after one, two, three, four and five cells.

- Assuming that the remaining cells will not be constructed, partial closure of RMU-2 will require the implementation of similar activities regardless of whether one, two, three, four, five or six cells are to be included. Most notably, the cell separation berm located between constructed cells and unused cell locations would need to be converted to a perimeter berm, including the installation of the cutoff wall. Final cover placement providing adequate surface-water controls would be similar to full closure.

- All motorized equipment will be decontaminated and moved for use at another location or returned to the supplier.

- At the time of closure, RMU-2 will be at or above existing grade elevations and not completely capped.

1.6.1 Final Cover Design

Regardless of when closure of RMU-2 will be initiated, the final cover of RMU-2 will consist of a Geosynthetic Clay Liner (GCL), a synthetic flexible membrane liner, a geocomposite drainage layer and vegetative cover. The perimeter of the cap will be secured into the perimeter berm so as to totally encapsulate and isolate the waste placed in the unit.

The unit is designed to shed water, and is, therefore, sloped downward from the center toward the perimeter. The final cover materials and thickness have been selected to limit infiltration into the placed wastes and thereby reduce leachate generation. Additionally, a general fill layer has been included above the waste surface to reduce the possibility that waste containers or debris will come into close proximity to the impermeable materials. The final cover design, which accomplishes the aforementioned objectives, consists of the following in ascending order:

- Six inches of an unclassified fill grading layer;
- A GCL;
- A synthetic flexible membrane liner consisting of 40-mil thick textured high-density polyethylene (HDPE);
- A geocomposite drainage layer;
- Eighteen inches of unclassified fill; and
- Six inches of topsoil suitable for promoting a vegetative cover.

The Final Cover System shall be constructed in accordance with applicable plans and details contained in the *RMU-2 Engineering Report* (ARCADIS, 2003, Revised 2009 and 2013).

Installation of the final cover for RMU-2 will be in accordance with the following sections of the Technical Specifications for RMU-2, as applicable:

- Section 15064 High-Density Polyethylene Pipe
- Section 02100 Site Preparation and Maintenance
- Section 02210 Earthworks
- Section 02401 Textured Polyethylene Geomembrane
- Section 02410 Geotextile
- Section 02413 Geosynthetic Clay Liner
- Section 02430 Geotextile/Geonet Composite
- Section 03400 Manholes, Risers, and Handholes
- Section 02960 Surface-Water Drainage Ditches

The Quality Assurance Plan for the installation of the final cover system for RMU-2 will be in accordance with the following sections of the Construction Quality Assurance Plan for RMU-2 (CQA Plan), as applicable:

- Section 1 General
- Section 2 Documentation
- Section 3 Lining System Acceptance
- Section 4 Soil Liner Material
- Section 5 Granular Drainage Media
- Section 6 Operations Layer
- Section 7 Vegetative Cover
- Section 8 General Earthfill
- Section 9 Mechanically Stabilized Earth (MSE) Wall
- Section 10 Geomembranes
- Section 11 Geotextiles
- Section 12 Geocomposites
- Section 13 Geosynthetic Clay Liner
- Appendices A through G

Clarifications and minor design changes or additions to the plans and details in the Engineering Report or the Technical Specifications or the CQA Plan shall be conducted in accordance with procedures specified in the approved RMU-2 Permit.

The quality assurance criteria for soils and synthetic liners are the same regardless of whether they are used for initial liner installation or final cap.

To limit the quantity of stormwater that contacts hazardous waste and requires special treatment, portions of the landfill surface may be covered with an "intermediate cover." Intermediate cover refers to a minimum of 12 inches of compacted clay that has been placed over cover material and the final waste grades. If intermediate cover is used, the minimum 12 inches of compacted clay will be installed over the design top of waste grades. Also, a temporary geomembrane will be placed to protect the intermediate cover from erosion until placement of the final cover. Prior to placement of the final cover, the temporary geomembrane will be removed. The top 6 inches of the intermediate cover will be removed and the remaining clay surface will be proof-rolled and used as the subbase for the GCL. The lower 6 inches of clay will replace the lower 6 inches of unclassified fill grading layer in the final cover system.

When final or intermediate cover is placed, the final waste grades shall be at or below design top of waste shown on the permit drawings. The design grade and slope of the final cover must be adhered to within specified survey tolerance limits. Any alteration of these grades or slopes must be made in the form of a permit modification request to change the design of the final cover.

The recommended final cover design has several advantages. First, it limits infiltration such that leachate generation will be strictly minimized. Second, by placing the 6 inches of grading layer and GCL under the synthetic membrane liner, the 40-mil textured HDPE will have a good supporting base, thus helping to maintain its integrity. Third, by placing the 6 inches of grading layer and GCL under the membrane liner, the HDPE is more accessible should any future repair be necessary, and any such remedial effort would not be hampered by the difficulties encountered in performing remedial actions immediately on top of the waste. Fourth, by having the membrane liner above the GCL, no additional moisture will be added to the GCL by means of infiltration, thus minimizing the potential for premature hydration of the GCL. Above the synthetic membrane, the soil (unclassified fill and topsoil) provides adequate room for root growth without long-term saturation of the soil or significant buildup of excess water and also provides freeze-thaw protection.

Less than 1 inch per year of percolation will be generated (based on water balance analyses completed for prior secure landfill areas by Wehran Engineering). This represents the maximum percolation value of water through the topsoil. Such percolation will not provide sufficient driving head to drive moisture through the top liner system, and, in turn, to cause rainwater to enter the unit. This percolation is not expected to cause any problems with slope stability of the soils on top of the synthetic liner, as drainage net above the synthetic liner is included in the cap design.

Furthermore, once a mature growth of vegetation is established, the moisture storage capacity is expected to increase, resulting in lower values of percolation.

After the final topsoil cover is completed and in place, vegetative cover will be established. If proper weather conditions do not exist for the establishment of permanent vegetation, all completed topsoil areas shall be seeded with temporary vegetative cover. The seedbed shall be prepared, including liming and fertilizing, as needed. The areas shall be seeded with species selected on their ability to minimize erosion.

Seeded areas may be mulched in order to conserve soil moisture and retard erosion. Mulch may be clean hay or straw or cellulose wood fiber material, depending on whether the seeding was accomplished by broadcasting or hydroseeding.

The planting can be made in spring, summer and fall. The seedings of perennial grasses may then be over-seeded in the spring. Alternate seeding mixtures suitable to local soil conservation district guidelines may be substituted, as appropriate, for the actual topsoil used.

1.6.2 Conversion of Soil Separation Berm to Perimeter Berm

In the event partial closure activities are instituted, several activities would be performed to convert the cell separation berm, at the leading edge of landfill development, to a perimeter berm. The anticipated typical methodology by which this will be performed is explained below.

Constructed components of the cell separation berm, primary base liner system and secondary base liner will be removed. The horizontal extent of excavation will be sufficient for the installation of the perimeter berm cutoff wall. The vertical limit of excavation will be the compacted clay secondary soil liner. The excavation of material will proceed in a manner that would prevent disturbance of the geocomposite, and the 80-mil HDPE liner outside the limit of excavation. On the cell side of the excavation, the various layers of the baseliner system (operations layer, geotextile, primary leachate collection system, composite primary liner and secondary leachate collection system) will be stepped back so that proper connections can be made upon construction of the perimeter berm. Based on the condition of the excavated material, it will be stockpiled and reused, used as perimeter berm fills or salvaged for other on-site uses.

The cutoff wall will be located and installed per the Engineering Report in the Permit, and the appropriate Permit Drawings.

The exposed secondary compacted clay liner will be scarified prior to the construction of the perimeter berm. Liner systems, leachate collection systems, and the perimeter berm will be constructed in accordance with the *RMU-2 Engineering Report* and Permit Drawings.

1.6.3 Maintenance Needs

Maintenance activities will be required to protect the integrity of the cover, containment structures and monitoring equipment for RMU-2. The seeding operation outlined in Section 1.6.1, above, is designed to provide rapid initial cover succeeded by long-term, low maintenance vegetative cover.

The function and integrity of the final cover for RMU-2, as specified in the Closure Plan for the facility, will be maintained, as necessary. The following corrective measures will be implemented, as necessary: 1) localized repair or replacement of any synthetic cover material that may have been breached; 2) filling, grading, compacting and revegetating any breach in the natural cover soil that may have occurred; and/or 3) minor backfilling of any small ponded areas.

The vegetative cover will be maintained during the growing season and reseeded and mulched, as needed, in areas subject to erosion. In general, such covers need little mowing. Woody plants appearing above the vegetative layer will be removed, as needed.

Fertilization and watering will be completed, as required, during the growing season; routine inspections during the post-closure care period will address vector control, with extermination scheduled, if required.

1.6.4 Drainage and Erosion

Drainage from RMU-2 will be collected in the site ditches and channels. Calculations for drainage control (24-hour, 25-year storm event) can be found in the *RMU-2 Engineering Report*.

Most surface-water runon and runoff is controlled by drainage channels on the Model City Facility. Each of the primary drainage channels has a spill control gate, which is

normally closed and locked so that surface water can be sampled prior to being released from the Model City Facility. The location of these channels, gates and monitoring points is discussed in the site Surface-Water Sampling and Analysis Plan (SWSAP).

During the operational life of RMU-2, surface water is monitored in accordance with the SWSAP. This monitoring will continue during closure until the landfill is closed. Then, the post-closure monitoring will be performed. The referenced SWSAP accounts for the surface-water drainage from all areas containing waste management units at the Model City Facility.

In the event that RMU-2 is closed prior to the construction of six cells, drainage will be collected in the site ditches, as outlined above. Details of the surface-water control features for partial closure are consistent with the *RMU-2 Engineering Report* and associated drawings showing the top of vegetative cover grades.

Additional details on drainage and erosion control plans can be found in the *RMU-2 Engineering Report*.

1.6.5 Settlement and Subsidence

The cell subbase grades are designed to provide a minimum slope of 1% toward the sumps (as measured both parallel and perpendicular to the cell centerline) following compression of the underlying Glaciolacustrine Clay layer. Consolidation of the Glaciolacustrine Clay is computed at several points in each cell to maintain the minimum slope of 1% following clay consolidation. Because the magnitude of clay consolidation is proportional to both clay thickness and applied pressure, clay consolidation is computed at several points in each cell based on reported clay thickness (Golder Associates, 2002) and waste depth. The post-consolidation elevation of each point is used to calculate the post-consolidation slope to achieve the minimum required slope of 1%. As a result, the performance of the leachate collection systems will not be affected by slope changes due to consolidation.

The cover will not be subjected to stress loadings, such as building foundations or heavy equipment traffic. Cover maintenance will also be performed to reduce stress associated with ponding liquids. Therefore, compressive forces will not induce either primary or secondary consolidation. Furthermore, liquefaction of the soil in the cover is not a threat, as liquefaction typically occurs only in relatively loose, saturated, cohesionless soils, which are not to be used as cover material. The yield point of the

HDPE material is much greater than the expected maximum geomembrane elongation, thereby keeping the liner intact in the event that some settlement does occur.

Geotechnical calculations, including those for consolidation of Glaciolacustrine Clay, waste settlement, excavation heave, hydrostatic uplift, slope stability and liquefaction are included in Appendix C of the *RMU-2 Engineering Report*.

1.6.6 Cover Permeability

The GCL component of the composite final cover will have a maximum permeability of 1×10^{-7} centimeters per seconds (cm/sec) (as is required for compacted clay layers), and the 40-mil HDPE geomembrane will have a 1×10^{-12} cm/sec permeability rating.

1.6.7 Leachate Collection and Pumping

Based on a "cap-as-you-go" approach, at the point a cell or cells are covered with the GCL and geomembrane portion of the final cover system, or 12 inches of intermediate cover, and precipitation is managed as clean runoff, leachate monitoring will be reduced from monthly to biannually for those cells. The leachate collection system for the RMU-2 facility will be maintained and will continue to be updated after closure as part of the aqueous treatment system.

1.6.8 Groundwater

The groundwater monitoring program adhered to during the operational life of RMU-2 will be followed during closure activities.

1.7 Continuance of Operations

RMU-2 is anticipated to close prior to closure of the entire Model City Facility. The site aqueous waste treatment system is projected to continue operating after closure for post-closure leachate management, unless suitable off-site treatment is located. Closure of other treatment, storage and disposal recovery units are addressed in the CWM Model City Facility Site-Wide Part 373 Permit.

1.8 Schedule for Closure

Final closure activities will commence within 30 days after receipt of final volume of wastes. Closure will be completed within 180 days unless an extension is requested of

the Commissioner of the NYSDEC. This procedure does not apply to "cap-as-you-go" activities, during which cover is placed as sections of RMU-2 are completed, but only to final closure following receipt of the final volume of waste.

CWM will notify the Commissioner of the NYSDEC at least 60 days prior to initiating any final closure activities. When final closure is completed, CWM will submit to the Commissioner of the NYSDEC certification both by CWM and an independent, registered New York State Professional Engineer that RMU-2 has been closed in accordance with the approved Closure Plan.

1.9 Extensions for Closure Time

CWM does not anticipate requiring an extension for closure time for RMU-2 unless one is needed due to weather or time of year constraints. Severe weather conditions at the Model City Facility may make completion of closure within 180 days difficult, and an extension of the closure time may then be necessary. In the event such an extension becomes necessary for these reasons, or due to some other unforeseen circumstances, CWM will petition the Commissioner of the NYSDEC for an extension.

2. Notice to Land Authority

CWM, the owner of the property where the Model City Facility is located, shall make a notation in the deed to the facility property stating in perpetuity that:

1. The land has been used to manage hazardous wastes; and

2. The use of the land is restricted in accordance with 6 NYCRR 373-2.7(g)(3).

No later than the submission of the certification of closure, CWM will submit to the local zoning authority, the Niagara County Clerk and the Commissioner of the NYSDEC a survey plot indicating the location and dimensions of the RMU-2 cells or other disposal areas with respect to permanently surveyed benchmarks. This plot will be prepared and certified by a Professional Land Surveyor licensed to practice in New York State. The plot, which is filed, will contain a note, prominently displayed, that states CWM's obligations to restrict the disturbance of the site. This includes eliminating inadvertent site access by the general public and livestock, to be accomplished by maintaining the integrity of the existing fence around the Model City Facility and by placing secondary fences around the closed facilities proper. In addition, this notice will indicate that post-closure use of the property on or in which hazardous waste remains after closure must never be allowed to disturb the integrity of the final cover, liner or any containment component, or the function of the facilities monitoring system.

Further, within 60 days after certification of closure, CWM will submit to the local zoning authority, Niagara County Clerk and the Commissioner of the NYSDEC a record of the type, location and quantity of hazardous wastes disposed within each cell or area of the facility.

3. Closure Cost Estimate [6 NYCRR 373-2.8(c)]

A closure cost estimate has been developed that represents the cost of closure of RMU-2. Operations included in this cost estimate include RMU-2 and associated equipment for the successive stages of one, two, three, four and five cells of RMU-2 and the total closure of six cells.

These costs represent detailed cost estimates based upon the closure performance standards detailed herein. Costs associated with appropriate waste handling techniques for inventoried hazardous wastes have been calculated into all of the estimated closure costs.

4. Financial Assurance for Closure

CWM currently uses a surety bond and a letter of credit as the selected financial assurance mechanisms for closure of the Model City Facility's units. Additional or revised mechanisms will be selected as the financial instrument for providing closure of each successive stage of RMU-2. An original signature financial assurance instrument for RMU-2 will be sent to the Commissioner of the NYSDEC at least 60 days prior to the placement of wastes in each stage of the development of the unit. This financial assurance instrument will have the NYSDEC as its beneficiary. CWM reserves the right to change financial assurance mechanisms as outlined in 6 NYCRR Part 373-2.8(d)(3) and (4). These will be updated annually, as required, to coincide with annual updates of the facility closure and post-closure cost estimates.

5. Waste Capacity and Final Cap Areas

The approximate waste volume capacity of the successive options for closure of RMU-2 after adjusting for cell separation berms, soil cover, and structural fill is as follows and the approximate final cover area:

Scenario	Cells Built	Approximate Waste Volume Capacity (cy)	Approximate Final Cover Area (surface area, acres)
1 cell	20	460,000	6.9
2 cells	20-18	797,000	13.1
3 cells	20-18-19	1,459,000	19.5
4 cells	20-18-19-17	2,385,000	25.4
5 cells	20-18-19-17-16	2,991,000	31.9
6 cells	20-18-19-17-16-15	4,030,700	38.5

Notes:

1. Waste volumes and final cover areas are approximate based on limited computer modeling of maximum waste grades within the footprint made available by having the indicated cells constructed and open. Where possible, the design waste grading equals the top of waste for the landfill under final buildout. In other areas, maximum 3H:1V slopes are used and benches are assumed to be constructed at the approximate intervals used for final buildout.

2. Waste volumes are gross and are based on volume comparison from modeled top of waste for each configuration to top of operations layer. No allowance is made for loss of waste volume due to use of select fill or for volume consumed by stabilizing agents or interim cover.

3. Final cover areas are based on the surface area of the design waste grading.

Revised Sitewide Closure Plan

(proposed modified pages are designated with a revision date at the bottom of the respective page)

OVERALL SITE-WIDE CLOSURE PLAN
CWM CHEMICAL SERVICES, LLC
1550 BALMER ROAD
MODEL CITY, NEW YORK 14107

DATED: SEPTEMBER 1998

REVISED: November 2013

TABLE OF CONTENTS

1.0 CLOSURE PROCEDURES AND ACTIVITIES

1.1 INTRODUCTION

This revised Closure Plan for CWM Chemical Services, LLC's Model City facility ("CWM") has been developed in compliance with the requirements of 6NYCRR Subpart 373-2, Sections 373-2.7, 373-2.8, 373-2.9(i), 373-2.10(h), 373-2.11(f), 373-2.14(g) and the requirements of 40 CFR 761.65(e). A written Cost Estimate for closure activities has also been developed and is submitted under separate cover.

The Plan details facility closure whether performed by CWM or by a third party. First, Closure Performance Standards that CWM intends to apply are described in Section 1.2. Partial closure is discussed in Section 1.3. Section 1.4 details the maximum waste inventory at closure. Section 1.5 presents a synopsis of partially closed tanks and their secondary containment systems. The closure schedule is outlined in Section 1.6 and the certification of closure, survey plat and deed notation requirements are found in Section 1.7. General closure activities are described in Section 1.8. This section includes general decontamination procedures for buildings, tanks, and containment structures. Health & Safety provisions for closure are found in Section 1.9. Section 1.10 gives general sampling and analytical procedures for closure. The Plan details the closure activities related to each major waste management unit currently on site in Section 1.11. Finally, sections 2.0 and 3.0 of the Plan include a discussion of the Closure Cost Estimate and financial mechanism chosen by CWM to secure funds for closure activities.

During the facility's operational lifetime, conditions or operations may be modified such that the Closure Plan will require changes. The general manager, or his designate, will be responsible for maintaining and updating the plan both prior to and after closure of the site. The CWM facility General Manager may be contacted at the following address and telephone:

Mr. Michael Mahar
District Manager
CWM Chemical Services, LLC
1550 Balmer Road
Model City, NY 14107
(716) 286-1550

At least one copy of the approved Plan and all revisions to the Closure Plan will be maintained on site until closure is completed and certified. CWM will amend or revise the Closure Plan at least annually whenever changes in the operating plans or facility design affect the Plan or whenever the expected year of facility closure changes. The Closure Cost Estimate will be updated annually.

1.2 CLOSURE PERFORMANCE STANDARDS

In accordance with 6NYCRR 373-2.7(b) and 40 CFR 761.65(e)(1), the Closure Plan is designed to ensure that the facility will require minimal maintenance and controls, to minimize or eliminate threats to human health and the environment, and to prevent the escape of hazardous wastes or hazardous waste constituents, PCB's, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or atmosphere.

Closure will be achieved by the removal of all unprocessed and hazardous waste residues. This will include decontamination and removal of all process and associated equipment, except buildings and other specified structures which will be decontaminated and left in place. If possible, salvageable equipment may be decontaminated and moved for use at another site. Where appropriate, hazardous waste process areas will be regraded and covered with clay-rich soils and vegetated following the completion of all other closure activities.

Closure cost estimates in this Plan are based on the following standards as outlined in 6NYCRR Part 373-2.7(c) and 6NYCRR Part 373-2.8(c):

- the closure cost estimate presumes the maximum inventory of hazardous wastes ever on-site over the active life of the facility;

- the closure cost estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive;

- the closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility;

- wastes remaining at this site during closure will be disposed of on-site if the owner or operator can demonstrate that on-site disposal capacity will exist at all times over the life of the facility. If such landfill capacity exists at the time of closure, CWM will utilize this capacity for wastes and other contaminated closure materials. Alternatively, these closure wastes/materials will be disposed of off-site at an appropriate facility.

Other assumptions include the following:

- it is presumed that the facility will operate until the year 2021; and

- the Aqueous Waste Treatment System ("AWTS") will continue to operate for post-closure leachate management.

1.3 PARTIAL CLOSURE

Closure of individual existing hazardous waste management units during normal operational periods at Model City will utilize on-site and off-site treatment and/or disposal options. Partial closure activities will adhere to the requirements of this Closure Plan, unless a unit-specific closure plan is approved. According to 6NYCRR Part 373-2.7(c)(4)(i), the owner or operator must notify the commissioner in writing at least 60 days prior to the date on which the owner or operator expects to begin closure of a surface impoundment, waste pile, land treatment unit or landfill unit, or final closure of a facility with such a unit.

1.4 WASTE INVENTORY AT CLOSURE

All untreated hazardous wastes remaining on site at closure will either be treated on site using available treatment operations, disposed of on site in the hazardous waste landfill, or shipped off-site to an approved hazardous waste management facility. PCB wastes which must be shipped off site will go to a facility approved by USEPA for PCB waste incineration, treatment or disposal.

Assuming all process equipment and storage areas are full of waste at the time of closure, the facility would have the maximum permitted volume of waste on site at closure. Tanks will be assumed to be full of the type of waste managed in those tanks as permitted. Below is a list of each storage area and its permitted maximum contents. All drum quantities are listed in 55-gallon equivalents. Rolloffs are estimated to be 30 cubic yards. Tankers may be 2,500, 5,500 or 6,000 gallons.

A. Container storage areas:

<u>PCB Warehouse</u>				
Area 1 storage		1,368 drums	75,240 gal.	Solid waste
Area 3/6 storage		1,358 drums	74,690 gal.	Solid waste
	or	1,198 drums	65,890 gal.	Solid waste
	and	160 drums	8,800 gal.	Liquid waste
Existing <u>Drum Management Building</u>				
Building storage		1,197 drums	65,835 gal.	Liquid waste
	and	2,215 drums	121,825 gal.	Solid waste
	or	3,412 drums	187,660 gal.	Solid waste
Loading dock		1,040 drums	57,200 gal.	Solid waste
West ramp		2 rolloffs/tankers	11,000 gal.	Solid/liquid waste
New Drum Management Building				
Building storage		3,048 drums	167,640 gal.	Solid/liquid waste
Truck Load/Unload Ramp		1,040 drums	57,200 gal.	Solid/liquid waste
Fuels ramp		2 rolloffs/tankers	11,000 gal.	Liquid waste
Transformer Flush Area		6 transformers or equivalent		
	or	37 drums	2,065 gal.	Solid/liquid waste

PCB Transformer Decommissioning Building ("T.O. Building")				
T.O. Building		11 pans with 50 small transformers or equivalent		
	or	33 drums	1,815 gal.	Solid/liquid waste
Loading ramp		2 rolloffs/tankers	12,000 gal.	Solid/liquid waste
Aqueous Waste~~r~~ Treatment Facility				
Drum storage		128 drums	7,040 gal.	Solid/liquid waste
Unloading ramp		2 rolloffs/tankers	12,000 gal.	Solid/liquid waste
Filter Press room		1 rolloff	30 cu. yds.	Solid waste
Exiting South Trailer Parking Area				
Trailer parking area	58 rolloffs		1,740 cu. yds.	Solid waste
	or	48 rolloffs	1,440 cu. yds.	Solid waste
	and	5 tankers	27,500 gal.	Liquid waste
New Full Trailer Parking Area				
Trailer parking area		48 rolloffs	1,440 cu. yds.	Solid waste
	or	38 rolloffs	1,140 cu. yds	Solid waste
	and	5 tankers	27,500 gal.	Liquid waste
Stabilization Facility				
Trailer parking areas (I-IV)		48 rolloffs	1,440 cu. yds.	Solid waste
(existing)		or 38 rolloffs	1,140 cu. yds.	Solid waste
	and	5 tankers	27,500 gal.	Liquid waste
New Trailer Parking Area		37 rolloffs	1,110 cu. yds.	Solid waste
	or	26 rolloffs	780 cu. yds.	Solid waste
	and	11 tankers	27,500 gal.	Liquid waste
Waste ash unloading area		1 ash tanker	2,500 gal.	Solid waste
Special Client Treat. Rm.		4 rolloffs	120 cu. yds.	Solid waste
Macro room		18 rolloffs	540 cu. yds.	Solid waste
North expansion		15 rolloffs	450 cu. yds.	Solid waste
Upper drum shredder		300 drums	16,500 gal.	Solid waste
Lower drum shredder		2 rolloffs	60 cu. yds.	Solid~~/liquid~~ waste
Truck Wash Facility				
Wash bay		3 rolloffs	90 cu. yds.	Solid waste
Tank T-130 Loading Ramp				
Loading ramp		1 rolloff/tanker	5,500 gal.	Solid/liquid waste
Tank T-108 Loading Ramp				
Loading ramp		1 rolloff/tanker	5,500 gal.	Solid/liquid waste

Tank T-109 Loading Ramp			
Loading ramp	1 rolloff/tanker	5,500 gal.	Solid/liquid waste
Tank T-158 Unloading Ramp			
Loading ramp	1 rolloff/tanker	5,500 gal.	Solid/liquid waste

B. Facultative Ponds:

Facultative ponds are the last portion of the on-site wastewater treatment system.

Pond#	Maximum Capacity	Contents
1-2	22,880,700 gallons	Treated Effluent from AWTS
3	51,355,300 gallons	Treated Effluent from AWTS
5	24,700,000 gallons	Treated Effluent from AWTS
8	43,413,500 gallons	Treated Effluent from AWTS

C. Tank storage areas:

The following Table 1 provides a list of all tanks on site, their location, and the type and quantity of waste or product in each tank.

TABLE 1 - MAXIMUM TANK INVENTORY

TANK #	CAPACITY IN GALLONS	CONSTRUCTION MATERIAL	LOCATION SUB-AREA	CONTENT
T-105 LIFT STATION	3,000	CARBON STEEL	SLF 1-6	LEACHATE
T-130	5,732	STAINLESS STEEL	SLF 1-6	LEACHATE
T-107 WET WELL	350	FRP	SLF 7	LEACHATE
T-108 HOLD TANK	10,000	FRP	SLF 7/11	LEACHATE
T-109 HOLD TANK	3,000	FRP	SLF 10	LEACHATE
T-110 WET WELL	350	FRP	SLF 10	LEACHATE
T-111 WET WELL	350	FRP	SLF 11	LEACHATE
T-150 LIFT STATION	8,000	CARBON STEEL	SLF 12	LEACHATE
T-160 LIFT STATION	3,000	CARBON STEEL	RMU 1	LEACHATE
T-165 STORAGE TANK	876,769	GLASS FUSED CARBON STEEL	RMU 1	LEACHATE
T-158 OIL/WATER SEPARATOR	17,000	CARBON STEEL	E. OF N. SALTS	LEACHATE
T-159 LIFT STATION	1,000	FRP	E. OF N. SALTS	LEACHATE
T-3007 CARBON ADSORBER	7,600	CARBON STEEL	WWT BLDG.	CARBON & WASTEWATER
T-3008 CARBON ADSORBER	7,600	CARBON STEEL	WWT BLDG.	CARBON & WASTEWATER
T-3010A ARSENIC ADSORBER	470	CARBON STEEL	WWT BLDG.	RESIN & WASTEWATER
T-3010B ARSENIC ADSORBER	470	CARBON STEEL	WWT BLDG.	RESIN & WASTEWATER
T-3010C ARSENIC ADSORBER	470	CARBON STEEL	WWT BLDG.	RESIN & WASTEWATER
T-3010D ARSENIC ADSORBER	470	CARBON STEEL	WWT BLDG.	RESIN & WASTEWATER

TANK #	CAPACITY IN GALLONS	CONSTRUCTION MATERIAL	LOCATION SUB-AREA	CONTENT
T-52 STORAGE	7,600	CARBON STEEL	SOUTH OF WWT BLDG.	SPENT CARBON
T-58 EFFLUENT STORAGE	488,529	GLASS FUSED CARBON STEEL	WEST OF AWTS BLDG.	AWTS EFFLUENT
T-100 STORAGE	160,545	CARBON STEEL	NORTH OF AWTS BLDG.	AQUEOUS WASTE
T-101 STORAGE	350,000	CARBON STEEL	EAST OF N. SALTS	LANDFILL LEACHATE
T-102 STORAGE	350,000	CARBON STEEL	EAST OF N. SALTS	LANDFILL LEACHATE
T-103 STORAGE	350,000	CARBON STEEL	EAST OF N. SALTS	LEACHATE
FRAC TANK #3	21,000	CARBON STEEL	EAST OF N. SALTS	LEACHATE
T-125 EQUALIZATION	394,271	CARBON STEEL	NORTH OF AWTS BLDG.	AQUEOUS WASTES
T-210 INFLUENT WASTE MGMT.	30,000	PLACITE 4310 LINED CARBON STEEL	Tank Farm East of AWTS Bldg.	AQUEOUS WASTES
T-220 INFLUENT WASTE MGMT.	30,000	FIBER GLASS	Tank Farm East of AWTS Bldg.	AQUEOUS WASTE
T-230 INFLUENT WASTE MGMT.	30,000	PLACITE 4310 LINED CARBON STEEL	Tank Farm East of AWTS Bldg.	AQUEOUS WASTE
T-310 BIOTOWER	30,457	FIBER GLASS	Tank Farm East of AWTS Bldg.	AQUEOUS WASTE
T-320 BIOTOWER	30,457	FIBER GLASS	Tank Farm East of AWTS Bldg.	AQUEOUS WASTE
T-710 PROCESS TANK	8,000	PLACITE 4310 LINED CARBON STEEL	AWTS BUILDING	AQUEOUS WASTE
T-810 PROCESS TANK	8,000	PLACITE 4310 LINED CARBON STEEL	AWTS BUILDING	AQUEOUS WASTE
T-820 PROCESS TANK	8,000	FIBER GLASS	AWTS BUILDING	AQUEOUS WASTE
T-1010	10,000	CARBON STEEL	AWTS BLDG.	LIME/AQUEOUS WASTE
T-1020	8,000	CARBON STEEL	AWTS BLDG.	LIME/AQUEOUS WASTE
T-1111 HOLDING	300	POLYETHYLENE	FILTER PRESS AWTS BLDG.	PRESS WATER (EFFLUENT)

TANK #	CAPACITY IN GALLONS	CONSTRUCTION MATERIAL	LOCATION SUB-AREA	CONTENT
T-1112 HOLDING	450	FIBER GLASS	FILTER PRESS AWTS BLDG.	PRESS WATER (EFFLUENT)
T-1310 CAUSTIC SCRUBBER	580	FIBER GLASS	AWTS BUILDING	CAUSTIC
T-3001	1,255	FIBER GLASS	Tank Farm East of WWT Bldg.	AQUEOUS WASTE
T-3002	900	FIBER GLASS	Tank Farm East of WWT Bldg.	AQUEOUS WASTE
T-3003	1,210	FIBER GLASS	Tank Farm East of WWT Bldg.	AQUEOUS WASTE
T-3009	6,000	CARBON STEEL	Tank Farm East of WWT Bldg.	AQUEOUS WASTE
T-3011	375	FIBER GLASS	CLARIFIER BLDG.	AQUEOUS WASTE
T-3012	375	FIBER GLASS	CLARIFIER BLDG.	AQUEOUS WASTE
MIXING PIT 1	20,354	CARBON STEEL	STAB. NORTH EXPANSION	WASTE SOLIDS
MIXING PIT 2	20,354	CARBON STEEL	STAB. NORTH EXPANSION	WASTE SOLIDS
T-120	1,650	FIBER GLASS	TRUCK WASH BLDG.	WASH WATER
FILTER PRESS SUMP SYSTEM	141	CONCRETE WITH FIBERGLASS INSERT	FILTER PRESS AWTS BLDG.	AQUEOUS WASTE
T-8001	5,000	CARBON STEEL	WEST DRUM AREA	GROUND WATER
T-8002	550	FIBERGLASS	WEST DRUM AREA	GROUND WATER
T-8004	550	FIBERGLASS	NORTH OF LAGOONS	GROUND WATER
T-9001	1,100	HDPE	FAC POND 5	FAC POND LEAK DETECTION LIQUID

TANK #	CAPACITY IN GALLONS	CONSTRUCTION MATERIAL	LOCATION SUB-AREA	CONTENT
T-8005	300	CARBON STEEL	SOUTH OF SLF 10	GROUND WATER
T-8006	300	CARBON STEEL	EAST OF SLF 12	GROUND WATER
T-8007	500	FIBERGLASS	SOUTH OF PCB WAREHOUSE	GROUND WATER
T-8008	500	FIBERGLASS	NORTH OF AWTS BLDG.	DNAPL
T-8009	525	HDPLE	INSIDE T.O. BUILDING CSA	GROUND WATER
T-8010	1,000	HDPE	SOUTH OF SOUTH TRAILER PARKING CSA	GROUND WATER
T-850	846	FIBERGLASS	AWTS BLDG.	AQUEOUS WASTE
TA-1	20,000	RUBBER LINED CARBON STEEL	STABILIZATION	AQUEOUS WASTE
TA-2	20,000	RUBBER LINED CARBON STEEL	STABILIZATION	AQUEOUS WASTE

D. Operating Landfills:

RMU-1 A separate closure and post closure plan has been prepared for RMU-1.

1.5 PARTIALLY CLOSED TANKS (out of service)

This section shows former tanks and their associated secondary containment areas on-site which are partially closed. All tanks listed have been removed. Partial closure documentation for all tanks was submitted to NYSDEC. The tables below give a summary of the closure status of the partially closed tanks on-site.

Partially Closed Fuels L-Series Tank System (secondary containment located west of TO Building)

TANK #	TANK REMOVED	SECONDARY CONTAINMENT DECONTAMINATED	CONTENTS	GENERAL LOCATION OF TANK OR CONTAINMENT	VERTICAL LOCATION OF TANK	SECONDARY CONTAINMENT VOLUME	SECONDARY CONTAINMENT REMOVED*	UNDER-LYING SOILS TESTED*	UNDER-LYING SOILS REMOVED*
L-1	Y	N	tank disposed of	FUELS - L SERIES TANK FARM	n/a	28 143 GAL.	N/A	N/A	N/A
L-3	Y	N	tank disposed of	FUELS - L SERIES TANK FARM	n/a	28 143 GAL.	N/A	N/A	N/A
L-6	Y	N	tank disposed of	FUELS - L SERIES TANK FARM	n/a	28 143 GAL.	N/A	N/A	N/A

*Secondary containment for the L-series tanks will remain intact. Potential contamination underneath the secondary containment structure will be contained/extracted by the PA IM GWES.

Partially Closed Fuels Tank System (T-44 Tank Farm) (secondary containment located west of TO Building)

TANK #	TANK REMOVED	SECONDARY CONTAINMENT DECONTAMINATED	CONTENTS	GENERAL LOCATION OF TANK OR CONTAINMENT	VERTICAL LOCATION OF TANK	SECONDARY CONTAINMENT VOLUME	SECONDARY CONTAINMENT REMOVED*	UNDER-LYING SOILS TESTED*	UNDER-LYING SOILS REMOVED*
T-44	Y	Y	tank disposed of	FUELS - T-44 TANK FARM	n/a	10 892 GAL.	N/A	N/A	N/A

*Secondary containment for the T-44 Tank Farm will remain intact. Potential contamination underneath the secondary containment structure will be contained/extracted by the PA IM GWES.

Partially Closed FOD Fuels Tank System (secondary containment located west of TO Building)

TANK #	TANK REMOVED	SECONDARY CONTAINMENT DECONTAMINATED	CONTENTS	GENERAL LOCATION OF TANK OR CONTAINMENT	VERTICAL LOCATION OF TANK	SECONDARY CONTAINMENT VOLUME	SECONDARY CONTAINMENT REMOVED*	UNDER-LYING SOILS TESTED*	UNDER-LYING SOILS REMOVED*
FOD-1 FUELS STORAGE	Y	Y	tank disposed of	FUELS - FOD TANK FARM	n/a	8 626 GAL.	N/A	N/A	N/A
FOD-2 FUELS STORAGE	Y	Y	tank disposed of	FUELS - FOD TANK FARM	n/a	8 626 GAL.	N/A	N/A	N/A
T-29	Y	Y	tank disposed of	FUELS - FOD TANK FARM	n/a	8 626 GAL.	N/A	N/A	N/A

*Secondary containment for the FOD Fuels System Tank Farm will remain intact. Potential contamination underneath the secondary containment structure will be contained/extracted by the PA IM GWES.

Partially Closed PCB Tank System (secondary containment located north of TO Building)

TANK #	TANK REMOVED	SECONDARY CONTAINMENT DECONTAMINATED	CONTENTS	GENERAL LOCATION OF TANK OR CONTAINMENT	VERTICAL LOCATION OF TANK	SECONDARY CONTAINMENT VOLUME	SECONDARY CONTAINMENT REMOVED*	UNDER-LYING SOILS TESTED*	UNDER-LYING SOILS REMOVED*
TO-9 - PCB STORAGE	Y	N	tank disposed of	TO-9, TO-10, TO-12 TANK FARM	n/a	8 626 GAL.	N/A	N/A	N/A
TO-10 PCB STORAGE	Y	N	tank disposed of	TO-9, TO-10, TO-12 TANK FARM	n/a	8 626 GAL.	N/A	N/A	N/A
TO-12	Y	N	tank disposed of	TO-9, TO-10, TO-12 TANK FARM	n/a	8 626 GAL.	N/A	N/A	N/A

*Secondary containment for the PCB Tank System Tank Farm will remain intact. Potential contamination underneath the secondary containment structure will be contained/extracted by the PA IM GWES.

Partially Closed PCB Storage Tank System (secondary containment located west of AWT Drum unloading dock)

TANK #	TANK REMOVED	SECONDARY CONTAINMENT DECONTAMINATED	CONTENTS	GENERAL LOCATION OF TANK OR CONTAINMENT	VERTICAL LOCATION OF TANK	SECONDARY CONTAINMENT VOLUME	SECONDARY CONTAINMENT REMOVED*	UNDER-LYING SOILS TESTED*	UNDER-LYING SOILS REMOVED*
T-64	Y	in progress	tank disposed of	WEST OF AWT BUILDING	n/a	n/a	N/A	began 6/95	N/A
T-65	Y	in progress	tank disposed of	WEST OF AWT BUILDING	n/a	n/a	N/A	began 6/95	N/A

*Secondary containment for the PCB Tank System Tank Farm will remain intact. Potential contamination underneath the secondary containment structure will be contained/extracted by the PA IM GWES.

Partially Closed Fuels Tank System (secondary containment located east of TO Building)

TANK #	TANK REMOVED	SECONDARY CONTAINMENT DECONTAMINATED	CONTENTS	GENERAL LOCATION OF TANK OR CONTAINMENT	VERTICAL LOCATION OF TANK	SECONDARY CONTAINMENT VOLUME	SECONDARY CONTAINMENT REMOVED*	UNDER-LYING SOILS TESTED*	UNDER-LYING SOILS REMOVED*
FD-1 STORAGE	Y	Y	tank disposed of	FUELS - DECHLOR TANK FARM	n/a	14 114 GAL.	N/A	N/A	N/A
FD-2 STORAGE	Y	Y	tank disposed of	FUELS - DECHLOR TANK FARM	n/a	14 114 GAL.	N/A	N/A	N/A
TO-3 STORAGE	Y	Y	tank disposed of	FUELS - DECHLOR TANK FARM	n/a	14 114 GAL.	N/A	N/A	N/A
TO-6 STORAGE	Y	Y	tank disposed of	FUELS - DECHLOR TANK FARM	n/a	14 114 GAL.	N/A	N/A	N/A
T-48 STORAGE	Y	Y	tank disposed of	FUELS - DECHLOR TANK FARM	n/a	14 114 GAL.	N/A	N/A	N/A

*Secondary containment for the Fuels Tank System Tank Farm will remain intact. Potential contamination underneath the secondary containment structure will be contained/extracted by the PA IM GWES.

T-47 Fuels Tank System (secondary containment located north-west of TO Building)

TANK #	TANK REMOVED	SECONDARY CONTAINMENT DECONTAMINATED	CONTENTS	GENERAL LOCATION OF TANK OR CONTAINMENT	VERTICAL LOCATION OF TANK	SECONDARY CONTAINMENT VOLUME	SECONDARY CONTAINMENT REMOVED*	UNDER-LYING SOILS TESTED*	UNDER-LYING SOILS REMOVED*
T-47 STORAGE	Y	Y	tank disposed of	Fuels - T-47 TANK FARM	n/a	4 959 GAL.	N/A	N/A	N/A

*Secondary containment for the Fuels Tank System Tank Farm will remain intact. Potential contamination underneath the secondary containment structure will be contained/extracted by the PA IM GWES.

1.6 CLOSURE SCHEDULE

According to 6NYCRR Part 373-2.7(c)(4)(i), the owner or operator must notify the commissioner in writing at least 60 days prior to the date on which the owner or operator expects to begin closure of a surface impoundment, waste pile, land treatment unit or landfill unit, or final closure of a facility with such a unit. According to 6NYCRR Part 373-2.7(d)(1) within 90 days after receiving the final volume of hazardous wastes, the owner or operator must treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The commissioner may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and provides further regulatory demonstrations. The US EPA Regional Administrator will be contacted in the case of a closure of the entire facility or a PCB storage unit and also if any time extension were sought on either a PCB unit or site-wide closure.

Closure will be completed within 180 days unless an extension is approved by the Commissioner of the NYSDEC and the USEPA Regional Administrator. It is important to note that this procedure does not apply to intermediate cover of landfills on site, but only to final closure following receipt of the final volume of waste.

1.7 CERTIFICATION OF CLOSURE, SURVEY PLAT, AND DEED NOTATION

Pursuant to 6 NYCRR 373-2.7(f) and 40 CFR 761.65(e)(8), CWM will submit to the Commissioner and/or the Regional Administrator, by registered mail, a certification that the hazardous and/or PCB waste management unit or the facility has been closed in accordance with the specifications in the approved Closure Plan within 60 days of final closure of the unit or facility. The certification will be signed by CWM and by an independent professional engineer registered in New York.

In addition, a survey plat indicating the location and dimensions of landfill cells and other hazardous waste disposal units with respect to permanently surveyed benchmarks, plus a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility, will be submitted prior to the submittal of the Certification of Closure. Copies will be submitted to the Commissioner of the NYSDEC, the local zoning authority and to the Niagara County Clerk.

Finally, pursuant to 6 NYCRR 373-2.7(i)(2)(i), CWM recorded with the Niagara County Clerk, within 60 days of Certification of Closure of the first hazardous waste disposal unit, a notation on the deed (notation for SLF 1-6 dated 8/10/83) to the facility property that will in perpetuity notify any potential purchaser that:

1) the land has been used to manage hazardous waste;

2) the facility property use is restricted under 6 NYCRR 373-2.7; and

3) the survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility has been filed with the local zoning authority, the Niagara County Clerk, and the Commissioner of the NYSDEC.

CWM also submitted to the NYSDEC Commissioner a copy of the document in which the deed notation was placed and a certification stating that the notation was placed on the deed as required.

Within 60 days of Certification of Closure of the last hazardous waste disposal unit, CWM will record another similar notation on the deed. And CWM will again submit a copy of the document in which the notation has been placed and the required certification.

1.8 GENERAL CLOSURE ACTIVITIES

Many of the tasks that will be performed during closure of the Model City Facility are common to different waste management units on site. This section of the Plan will summarize general activities and requirements. Unit-specific details are discussed in Section 1.11.

1.8.1 INVENTORY

Prior to initiating any closure activities, an inventory of all waste at the facility will be conducted. The inventory will be performed in order to:

1) verify that the actual inventory is consistent with the records of reported waste identity and quantities;

2) confirm the integrity of all containers in preparation for inventory removal; and

3) identify, by visual observation, any potentially contaminated areas.

Any potentially contaminated areas will be noted so that additional sampling can be done in those areas.

1.8.2 DECONTAMINATION OF BUILDINGS

All buildings used for solid, hazardous or TSCA waste storage or management will be thoroughly decontaminated and left standing at closure.

As a general rule for all buildings, once they have been cleared of all material, the floors will be swept or vacuumed clean of all dust and debris, washed and then visibly inspected to a clean debris surface. Clean debris surface means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area. (40 CFR 268.45, Table 1).

Wastewaters generated from decontamination procedures used during the closure process will be collected and treated by the on-site Aqueous Wastewater Treatment System. Section 1.10.3 describes further decontamination guidance.

Refer to the following decontamination procedures to be used on a building specific basis:

A. All non-PCB waste management buildings (Buildings where wastes containing PCBs were never managed)

Once these buildings have been cleared of all material, the floors will be swept or vacuumed clean of all dust and debris, washed and then visibly inspected to a clean debris-type surface that is, to the best degree possible, free of soil and hazardous waste except for residual staining (light shadows, streaks or minor discolorations). Any wastewater generated during the decontamination process will be treated in the on-site AWT system.

Mobile equipment may be used to wash the floors. The wash water will be collected for treatment/disposal on-site. In order to determine if the building has been adequately decontaminated for potential reuse, a small quantity of final rinse water will be analyzed as indicated in Section 1.10.3 below. If the wash waters are not treated on site, they will be shipped to an appropriate approved facility.

If a location fails to meet the clean up criteria, it will be re-cleaned and re-tested until clean.

Rinse water analysis for a porous surface such as concrete with known contamination will be supplemented by a destructive analysis that demonstrates that the surface concentrations represent the most highly contaminated material. Concrete which has been sealed or coated to effectively prevent the penetration of contaminants may be cleaned and tested, by using rinse water testing, as a non-porous surface.

B. PCB Management Buildings (Buildings where wastes containing PCBs were managed)

The clean closure of the PCB Storage Areas includes three major components: (1) removal of inventory, (2) decontamination, and (3) sampling.

Storage areas will be PCB wipe sampled after all TSCA wastes have been removed for disposal. The areas will be swept or vacuumed clean of all dust and debris and washed in accordance with section 1.8.2.A.

The effectiveness of the initial cleaning with regard to PCBs will be measured by standard wipe tests. Building areas may be decontaminated to 10 micrograms/100 cm^2 or less for the possibility of future reuse or to 100 micrograms/100 cm^2 for disposal as a solid waste (refer to the TSCA Approval Letter, dated December, 1994).

PCB wipe samples will be taken by using a random grid based sampling strategy (refer to section 1.10). If the grid area includes a location where PCBs would be suspected (e.g. sumps, trenches, low spots, etc.) the grid sample(s) will be strategically taken in these location(s).

If PCB wipe samples indicate greater levels than those listed above, washing or steam cleaning may be performed on those floor areas which are contaminated. Detergents may be used, if necessary.

If there is visual evidence indicating potential contamination (e.g. stains), the area will be decontaminated by washing or steam cleaning. Again, as above, a grid based sampling strategy will be applied. If the grid area includes previously stained location(s), or a location where PCBs would be suspected, the grid sample(s) will be taken in these location(s). In addition, a small quantity of final rinse water will be analyzed as indicated in Section 1.10.3 below to help determine if the effectiveness of the decontamination with respect to non-PCB contaminants.

If a location fails to meet the clean up criteria, it will be re-cleaned and re-tested until clean.

PCB wipe tests and rinse water analysis for a porous surface such as concrete with known contamination will be supplemented by a destructive analysis that demonstrates that the surface concentrations represent the most highly contaminated material. Concrete which has been sealed or coated to effectively prevent the penetration of PCBs may be cleaned and tested, by using PCB wipe tests, as a non-porous surface.

Any spent cleaning solvents and pads needed for decontamination will be landfilled on-site or shipped off site for treatment or disposal. Any rinse or wash water generated from cleaning of buildings will be treated in the on-site AWTS or shipped off site for appropriate disposal.

C. Office and non-waste management areas of buildings (Laboratories, SPEC Center, Office Trailers, Locker Room, Training Room, Fire Hall, etc.)

Buildings and rooms not used for management of waste materials include, but may not be limited to, offices, lavatories, employee lunch rooms or meeting rooms and records storage areas. As these areas should not be waste contaminated, the floors will be mopped with soapy water and the walls will be wiped down if dirty. No additional decontamination activities will be performed in these areas.

1.8.3 DECONTAMINATION AND REMOVAL AND/OR POTENTIAL REUSE OF TANKS

At closure, all possible/practicable material will be removed from on-site tanks. All pumpable free liquid will be transferred onto bulk liquid transporters or into drums or other suitable transport vehicles (i.e. "super suckers" or vac trucks) for disposal on-site or shipment to off-site hazardous waste management facilities. Residual semi-solid or solid materials will also be removed from tanks. These solids or semi-solids will be loaded into containers and managed on-site, if possible, or shipped to an appropriate off-site waste management facility.

According to the intended disposition of the closed tank, one the following three options will be followed:

- Disposal as a Hazardous Waste - Disposal in a Subtitle C hazardous waste landfill (TSCA landfill for PCB tanks), in accordance with the immobilization technologies in EPA's Hazardous Debris Rule. This entails cutting the empty tank into pieces, micro and/or macroencapsulation or sealing of the pieces, and disposal in an on-site or off-site hazardous waste landfill;

- Disposal as a Solid Waste - For RCRA tanks, disposal in a Subtitle D solid waste landfill after treatment in accordance with the extraction technologies in EPA's Hazardous Debris Rule. This entails use of one of the chemical or physical extraction technologies specified in the rule and achievement of a visibly clean surface (i.e. no greater than 5% of the total surface area remaining stained), prior to disposal in an off-site solid waste landfill. For tanks that are also PCB contaminated, decontamination in accordance with the procedures specified in the USEPA TSCA Approval Letter, utilizing the 100 ug/100 cm^2 wipe sample criteria; or

- Potential Reuse of the Tank on-site or off-site - (For a RCRA tank, treat as cited above for Disposal as a Solid Waste.) For tanks that are also PCB contaminated, decontamination in accordance with the procedures approved by the USEPA TSCA Approval Letter, to 100 micrograms/100 cm^2 for reuse as a non-PCB tank or to 10 micrograms/100 cm^2 for any use.

Any wastewater generated from washing will be collected and treated by the on-site Aqueous Wastewater Treatment System.

(**NOTE:** If the tank is to be reused as an on-site hazardous waste storage tank, CWM must first obtain a Permit modification in accordance with Condition B in Module IV of the Permit.)

1.8.4 ROADWAYS

All paved main roads and parking areas serving the facility, especially landfill areas, will be thoroughly swept. The sweepings will be landfilled on site or shipped off-site to an appropriate facility.

1.8.5 CONTAINMENT STRUCTURES AND UNDERLYING SOILS

1.8.5.1 Areas to be Demolished

The steps to closure include: **1)** removal and disposal of any materials inside the containment structures; **2)** inspection for cracks and staining; **3)** cleaning; and **4)** PCB wipe tests, if applicable. Once the concrete containment structures are removed, the underlying soil will be inspected, sampled and analyzed.

A. PCB areas (Areas where wastes containing PCBs were managed)

Random wipe tests will be done to determine if concrete meets "clean" parameters listed in Section 1.8.2.B If the containment area is "clean", the containment structure will not be considered TSCA regulated and will be landfilled in a secure landfill, on or off-site. If it does not meet the definition of "clean", the concrete will be removed and managed as PCB debris. If the storage area was also used to store other types of waste, the building/area will be cleaned also as outlined in Section 1.8.5.1.B below.

B. RCRA areas (Areas where wastes containing PCBs were never managed)

Containment areas will be cleaned using the same procedures as in Section 1.8.2.A (Non-PCB Building Decontamination). Due to the fact that any spills to a containment area are promptly cleaned up, internal contamination of the concrete is not expected in areas such as the parking containment area. A clean, debris-type surface will be verified. Several containment areas will be broken up and removed for disposal. The containment demolition debris will be landfilled on site if possible, or shipped to an appropriate waste management facility.

C. Underlying soils

Once the concrete is removed, the soil will be inspected for signs of contamination. Any soil showing contamination will be sampled as in Section 1.10.5. Depending on the characterization results, the soils will either be removed and disposed of in a RCRA and/or TSCA permitted landfill on-site or off-site, disposed of in a solid waste permitted landfill off-site or managed as a SWMU.

Characterization of underlying soils at any location where visual evidence of contamination exists (i.e. stained or discolored soils) will be sampled by using area-specific sampling grids as described in section 1.10.5 of this Plan.

Cracks or open seams in containment structures are unlikely, given the fact that, by law, all observable cracks and open seams must be documented and repaired under our current operating permit. However, any soils under identified cracks or open seams will be targeted for sampling using methodology described in section 1.10.5 of this Plan.

1.8.5.2 Areas to be Cleaned and to Remain in Place

Containment areas will be cleaned using the same procedures as described above in sections 1.8.2.A and/or B (depending on whether PCBs were managed in the area), tested as per 1.10.5.C and left in place. These containment areas either have a downgradient Groundwater Extraction System (GWES) in place which will address any potential contamination in the soils underneath or they are new, well managed containment areas with no major release history.

1.8.6 EQUIPMENT

All heavy equipment and equipment ancillary to storage tanks or waste management processes will be removed upon closure. The equipment will be either decontaminated and moved off site, or dismantled and landfilled.

A. PCB contaminated equipment

In keeping with 40 CFR 761.79(b), "Movable equipment used in storage areas shall be decontaminated by swabbing surfaces that have contacted PCBs with a[n appropriate] solvent." The equipment can also be cleaned according to an alternate decontamination procedure written in the TSCA Approval Letter. This procedure will be followed for equipment such as backhoes used in the landfill, where PCBs are managed, and forklifts used in drum storage areas.

Piping and pumps that conveyed PCB material will be drained or blown free of waste material and will be managed as TSCA debris.

B. RCRA waste contaminated equipment

Heavy equipment will be cleaned in the RMU-1 truck wash or an area established with containment, and washed using detergents as necessary. Ancillary equipment, such as piping and pumps, will be water flushed and managed as RCRA debris. After decontamination, salvageable equipment may be removed to another facility for use.

C. Virgin Product contaminated equipment

Ancillary process equipment on site that was not used to manage hazardous or PCB wastes will be water flushed for safety purposes and sent off site for reclamation or for disposal.

1.8.7 EMPTY DRUM MANAGEMENT

During the initial pre-closure inspection and inventory, inspectors should take special note of empty drums throughout the facility.

All drums which are to be considered "empty" must first undergo waste removal practices which are normally employed so that no drum has greater than one (1) inch of waste residue remaining in it. This will ensure that no empty drums or drums containing residual contaminants will remain on site without plans for ultimate disposal. Any drum containing solid residues of less than one inch will be sent off site to a drum reclamation facility or cut in half or shredded, in a contained area, and disposed of on site, or shipped off site to a secure landfill.

Any container that held an acute hazardous waste listed in 40 CFR Part 261.31, 261.32 or 261.33(e) will be considered empty if the procedures listed in 40 CFR Part 261.7(3) are followed.

Any drums located in process areas from which hazardous wastes have been removed for processing, but which remain partially filled will be collected and stored temporarily in the Drum Warehouse.

Drums with residual liquid waste will be bulked according to chemical composition based on their waste profile(s) and determined through compatibility analysis performed according to the procedure described in Section C-2h(2) of the Model City Facility Waste Analysis Plan. The empty drums will be managed as described above. Any drums that do not meet the definition of RCRA empty will be managed as containers of waste.

1.8.8 RINSE WATER/WASH WATER MANAGEMENT

Other than cleaning solvents, for example those used to remove PCBs, all wash/rinse waters are expected to be processed through Aqueous Waste Treatment System ("AWTS") during closure. AWTS is designed to treat multi-source leachate (waste code F039) to Federal Land Disposal Restriction (LDR) treatment standards. In addition, wash water for containment areas is not expected to be different from the rainwater that is collected in them and treated through AWTS currently. Therefore, AWTS should not have difficulty treating wash or rinse waters from site decontamination and no pretreatment analysis will be necessary. CWM plans to continue operating AWTS until the landfills cease to generate significant volumes of leachate or until a suitable off site disposal location is identified.

1.8.9 SITE MONITORING DURING CLOSURE ACTIVITIES

Closure is anticipated to take 6 months. During this time, groundwater wells, leachate collection systems and surface water discharges will continue to be monitored in compliance with all plans, permits and approvals associated with the facility during normal operations. After the facility is closed, post-closure monitoring will commence.

1.8.10 CONTINGENT CLOSURE FOR TANKS AND SURFACE IMPOUNDMENTS

During closure, tank systems and specific surface impoundments (i.e. Facultative Ponds 1, 2, 3, 5, and 8) will be emptied of all waste materials and any underlying contaminated soils will be remediated at that time. However, should it be necessary to leave any contaminated soils in place, pursuant to 6NYCRR 373-2.10(h)(2) and 373-2.11(f)(2), the affected units will be closed as landfills. Landfill closure of these units will require the full implementation of landfill closure requirements including capping and vegetating and will require the implementation of the applicable provisions of the Post-Closure Plans for secure landfills. Residual soil contamination may also be addressed as part of the ongoing facility RCRA Corrective Measures Study and Implementation, as described in Section 1.8.5.2.

1.9 HEALTH & SAFETY

Appropriate precautions must be taken to ensure that the closure activities are performed safely and using good industrial hygiene practices. As a result, personnel performing closure will need to have the appropriate OSHA 1910.120 training.

Task appropriate personal protective equipment (PPE) will need to be provided. If closure activities are performed by CWM personnel, the level of personal protective equipment required will be determined by the Site Safety Manager. Otherwise, contractors will need to determine activity specific PPE requirements.

PPE for most activities will most likely include hard hats, safety glasses or goggles, chemical resistant coveralls, gloves, steel-toed boots, and air purifying respirators. A positive-pressure self-contained breathing apparatus with full-face masks will probably be necessary for initial tank and vessel entry. OSHA Confined Space Entry procedures will be followed at all times for vessel entry. Organic vapor-acid gas respirators with hard hat and appropriate eye protection may be used for later stages of the decontamination or when workers are performing moderate hazard activities.

Also, appropriate personnel decontamination procedures must be followed. Facilities will be provided for personnel decontamination at the completion of each work interval. PPE cleaning solutions associated with closure activities related to specific waste management units will be disposed of appropriately with the building or equipment cleaning rinse waters generated from the decontamination of the same unit.

1.10 ANALYTICAL VERIFICATION OF CLEAN CLOSURE

1.10.1 QUALITY ASSURANCE

The following paragraphs describe the sampling methods that will be employed to ensure that representative samples are taken. The sampling locations and/or frequency are specified in section 1.11 - Unit-Specific Closure Activities, with additional information in the unit-specific sections of the Site-Wide Closure Cost Estimate. The average grid size is 22,500 sq. ft. (150 x 150) for soil composite samples and 625 sq. ft. for PCB wipe samples (see also unit specific sections, grid size varies depending on unit configuration). One field duplicate will be collected for every 20 samples. One tap water "blank" will be taken and analyzed for background information on the water washing samples. For the soil samples, one equipment "blank" will be prepared by rinsing one of the disposal plastic scoops into a sample bottle.

The samples will be preserved as follows: volatiles, semivolatiles and PCBs, store at 4 C; aqueous samples for metals, pH < 2 with nitric acid. The samples will be analyzed by a NYS certified lab in order to ensure that high quality analytical data is obtained. The analytical methods to be employed are listed below:

analyte(s)	method
PCBs	8082
Volatile Organics (VOC)	8260
Semivolatile Organics	8270
Priority Pollutant Metals (metals)	6010 or other individual SW-846 methods

The exact reference and edition to be followed for each method is listed in the Waste Analysis Plan, Attachment C of the 373 Permit. The analytical data will be reviewed and a determination made whether a unit meets the closure specifications as part of the preparation of the closure certification.

1.10.2 PCB MANAGEMENT AREAS (Areas where wastes containing PCBs were managed)

A. TSCA Requirements for Clean Closure

As provided in CWM's TSCA Approval Letter (December, 1994), building and storage areas will be decontaminated to 10 micrograms/100 cm^2 or less for reuse or to 100 micrograms/100 cm^2 or less for disposal as solid waste. Tanks may be decontaminated to 100 micrograms/100 cm^2 for reuse as a non-PCB waste tank or to 10 micrograms/100 cm^2 for any use, or properly disposed in a RCRA/TSCA landfill (see Section 1.8.3).

B. PCB sampling procedures

Procedures for closure sampling are outlined in this section. The procedures for sampling done prior to decontamination are identical to those that will be used for sampling after decontamination.

All sampling will be in accordance with US EPA-approved methods. The analysis of the wipe samples will conform to US EPA SW-846 method 8082. CWM may use either the on-site lab or a local contract laboratory, or another CWM laboratory to perform this analytical work as long as any such laboratories are certified for the subject parameters in accordance with the NYSDOH's Environmental Laboratory Approval Program (ELAP). Regardless of the laboratory chosen, the Quality Assurance Plan of the selected laboratory will be used as a basis of ensuring that all analytical data is valid.

Grid-based sampling will strategically encompass low areas on the floor of each storage area (i.e. sumps, collection trenches, etc.) and stained/discolored areas since these are the most likely places where any released PCBs may have become concentrated. A representative number of low areas will be sampled, e.g., one per grid section, if present.

Sampling may be performed on the inside and top surfaces of curbing, ramps, railings, floors, sumps and trenches, if contamination is suspected.

If initial wipe tests indicate that PCBs are present above the PCB clean up levels, the surface areas will be decontaminated and re-sampled. If decontamination is necessary, areas where visual signs of contamination existed or that previously failed wipe tests will be re-sampled after decontamination.

For a tank, at least two samples will be taken; one at the bottom and one at the high liquid level. Up to three additional samples may be taken if areas of corrosion or damage is noted.

Once the sampling locations are chosen, the basic steps in the sampling program are shown below:

1. The designated sampling areas/points will be marked, using a template or ruler, into sections that are 10 centimeters by 10 centimeters.

2. A cotton swab pre-moistened with hexane will be removed from the previously-prepared sampling vial. Wiping of the marked area will begin immediately. Gloves will be worn by the sampler at all times to prevent cross-contamination.

3. The surface to be sampled will be wiped with uniform pressure, in a manner such that the entire area is wiped two times, thoroughly and consistently, each time being from a different direction and orientation.

4. The swab will then be returned to the sampling vial.

5. The vial will be capped, labeled, and prepared for shipping. A chain-of-custody form will be prepared.

1.10.3 RINSE WATER ANALYSIS FOR DECONTAMINATION VERIFICATION

Due to the intended closure in place, in addition to achieving a clean debris-type surface, a rinse with a minimal amount of water will be performed and a sample will be collected and analyzed. The samples will be analyzed for VOC contamination. The results of the sampling will be used to determine the effectiveness of the decontamination.

The criteria that will be used to determine cleanliness is 300 ppb or less for methylene chloride and 100 ppb or less for all other volatile organic constituents. If a sample does not meet the cleanup criteria, the washing process will have to be repeated and another sample collected.

1.10.4 WASTE RESIDUE ANALYSIS

Analytical results and/or generator knowledge of the waste will be used to characterize any residues removed from RCRA empty containers prior to on-site or off-site disposal.

1.10.5 SITE SAMPLING AND ANALYSIS

A. Standard soil sampling and analytical

All soil sampling will be conducted using area-specific sampling grids collecting samples from one or more subsurface lifts.

A 150 ft. x 150 ft. average grid size will be used for sampling purposes, each containing 4 random samples (1 in each quadrant). The most likely area of contamination within each quadrant, if present, will be targeted for sampling. Grid sizes may fluctuate depending on location.

Soil will be tested to determine if contamination is present above documented background levels. Characterization of underlying soils at any location where no visual evidence of contamination exists (i.e. stained or discolored soils) will be randomly sampled by using area-specific sampling grids.

Cracks or open seams in containment structures are unlikely, given the fact that, by law, all observable cracks and open seams must be documented and repaired under our current operating permit. However, any soils under identified cracks or open seams will be targeted for sampling.

The samples removed from each grid square will be representative of the horizontal composition of the soil mixture. The number of samples and grid size will vary, however the sample collection will follow the procedure below:

1. New disposable scoops will be used to collect all soil samples.

2. For the uppermost sample, the soil from an area approximately one square foot will be loosened and placed into a new, unused "compositing bottle" prior to placement in the sample bottles. Surface samples from the other grids in the area would be similarly collected and composited.

3. The lower soil samples will be collected by removing additional soil with a sturdy trowel from the same one foot square area to the specified level (e.g. 6 inches). The lower soil samples will be similarly composited and bottled.

4. Assuming the trowel will not be decontaminated between sample locations, any portion of the sample which may have contacted the trowel will be discarded.

5. Each individual sample will be thoroughly mixed prior to compositing. Composite samples will then be mixed to produce a sample that is representative of the horizontal component of the grid section.

6. Each sample will be recorded, preserved if necessary, and packaged for analysis following appropriate handling and chain-of-custody procedures.

Unless otherwise mentioned, soil will be analyzed using a two tiered approach. First it will be typically analyzed for parameters like Priority Pollutant Metals and Organics. A minimum of one "grab" sample will be taken within each grid square for VOC analysis. The criteria used for determining whether or not clean closure has been obtained are those presented in Table 375-6.8(b) for industrial facilities in accordance with NYSDEC Commissioner Policy – 51 (CR-51).

Results from soil analyses will be compared to the above indicated criteria to determine whether or not clean closure has been achieved. If clean closure has not been established for a given area, then a determination can be made as to what type of management method will be needed. Options may involve invoking the Contingent Closure Plans or removing contaminated soil or treating contamination by immobilization technologies, direct landfilling, incineration, etc. Another option would be to follow Corrective Measures guidance, with options of possibly leaving low levels of contamination in place with institutional controls.

B. Fac Pond bottoms sampling and analytical

Following discharge of the treated effluent, the bottom soils and sediment will be sampled and analyzed to determine their characteristics. A grid system which divides the ponds into approximate 200 ft. x 200 ft. areas will be set up in each emptied facultative pond and core samples will be taken inside each grid and composited. An approximate 100 ft. x 100 ft. grid squares will be used for closing Fac ponds 1 & 2.

Samples will be collected and composited in the following manner:

1) Five sample locations from each grid will be randomly selected;

2) From four (4) of the five locations within each grid, a core will be taken from which:

   A) the top one inch (1") from each core will be composited to represent the upper stratigraphy, and;
   B) at a point six inches (6") below the upper layer, a composite will be made from each core to represent the lower stratigraphy.

   Both the upper and lower composites from these four (4) locations will be tested for priority pollutant metals.

3) From the fifth location in two of the grids, a grab sample will be taken at a depth of six inches (6"), and analyzed for 6 NYCRR Part 373 Appendix 33 constituents; and

4) From the fifth location in the remaining grids, a grab sample will be taken at a depth of six inches (6") and analyzed for priority pollutant organics.

C. Concrete containment sampling

Containment areas will be cleaned using the same procedures as in Section 1.8.2.A (Non-PCB Building Decontamination). If PCBs were stored in the containment area, PCB wipe tests will be taken as described in 1.10.2.B.

For areas with no apparent contamination, the concrete will be broken up as indicated in Section 1.8.5.1 and disposed of.

If concrete containment is to be left in place, a small amount of rinse water will be collected and analyzed for VOCs to ensure that stormwater runoff is not impacted.

1.11 UNIT-SPECIFIC CLOSURE ACTIVITIES

1.11.1 FACULTATIVE PONDS (1, 2, 3, 5, and 8)

Facultative (fac) ponds 1, 2, and 5 will be retained to serve as part of the post-closure wastewater treatment system for leachate management and treatment and will not be closed until the AWTS ceases operation. Fac Pond 8 is currently in the process of being closed. Fac Pond 3 will be closed when the proposed RMU-2 landfill is expanded beyond the first stage of development. The following assumptions were made in developing this closure plan:

All fac ponds will contain treated aqueous treatment plant effluent at the time of closure;

- Treated effluent will be discharged to the Niagara River under the conditions set forth in the SPDES permit for the facility in effect at the time of closure;

- Soils will be sampled and analyzed as described in Section 1.10.5 to verify no contamination is present (as previously demonstrated during other on-site pond closures);

- Clean fill will be used to regrade the facultative pond areas to prevent wind erosion and ponding of precipitation and runoff. This fill will supplement the use of the existing earth berms for regrading;

- Tankage and associated piping, valves, aerators and appurtenances will be disposed of off site, or on site if possible.

Treated effluent from AWTS will be pumped out of each fac pond and discharged via the SPDES permitted outfall to the Niagara River. This effluent will meet the concentration limitations specified in the SPDES discharge permit. In light of the large volume of effluent which may need to be discharged during closure, it may be necessary to discharge the maximum expected inventory over a two-year period. This will allow the closure of the fac ponds to be scheduled so that periods of low flow (winter) can be avoided during the discharge of the effluent to the Niagara River.

Closure of the fac ponds will begin after all effluent is removed. Once the discharge is completed, the bottom soils and sediments will be sampled and analyzed to determine their characteristics as specified in Section 1.10. Removal of soil/sediment from the bottom of a fac pond will be based on the results of the initial sampling and analysis program. If concentrations of hazardous constituents do not exceed the criteria indicated in Section 1.10.5.A, no removal will be performed prior to regrading. In this event, the results of the initial sampling and analysis program will be used to demonstrate clean closure.

If concentrations of hazardous constituents exceed the criteria indicated in Section 1.10.5.A in the surface samples, but not in the samples taken at six inches below the surface, a minimum of six inches of material will be removed from the bottom of the facultative pond and disposed of properly. In the event that materials are removed, post-removal sampling will be conducted to confirm that the indicated criteria have been achieved. The sampling and analysis program described in Section 1.10 will be repeated (including sampling locations and analytical parameters) except that only the one inch surface samples will be collected. The results of the post-removal sampling will be used to demonstrate clean closure.

If concentrations of hazardous constituents exceed the criteria indicated in Section 1.10.5.A in the subsurface samples, but not in the surface samples, the upper twelve inches of material will be removed from the bottom of the facultative pond and disposed of properly. In the event that materials are removed, post-removal sampling will be conducted to confirm that the indicated criteria above have been achieved. The sampling and analysis program described in Section 1.10 will be repeated (including sampling locations and analytical parameters) except that only the one inch surface samples will be collected. The results of the post-removal sampling will be used to demonstrate clean closure.

Facultative Pond 8 has been dewatered and the results of sampling and analysis of bottom soils conducted in August 2005 have indicated that the concentration of chemical constituents meet the criteria used for determining whether or not clean closure has been obtained as presented in Table 375-6.8(b) for industrial facilities in accordance with NYSDEC Commissioner Policy – 51 (CR-51). Results of the RCRA chemical closure of Fac Pond 8 were provided to the NYSDEC in November 2009. Consequently, it is assumed that clean closure of this impoundment, can be completed without the removal of bottom soils.

Unless a modified closure is approved by NYSDEC, the Facultative Pond area will be regraded and filled by leveling the existing perimeter berms, and if necessary, utilizing clean backfill from

on-site borrow areas. This earthwork will be accomplished using bulldozers and graders, and the closed Facultative Pond areas will be filled and re-graded to promote drainage and conform with the surrounding ground elevations. The backfill soil and collapsed berms will not be compacted. No clay cover or other type of final cover will be required because the closed and regraded pond areas will then be seeded and fertilized to re-vegetate the bare soil and promote drainage which will conform to the overall site drainage patterns. . Fac Ponds 3 and 8 will not be backfilled due to their location within the proposed footprint of Residuals Management Unit No. 2 (RMU-2). Fac Ponds 3 and 8 will however, still be subject to all required chemical testing and disposal requirements in accordance to this closure plan.

Fac Ponds 3 and 8 are located within the proposed footprint of RMU-2 and will be closed for development of the landfill. To partially replace the storage volume reduction from closure of Fac Ponds 3 and 8, a new Fac Pond 5 will be constructed. New Fac Pond 5 will be constructed with a liner system to comply with 6 NYCRR Part 373-2.11. Fac Pond 5 will be designed with a double composite liner system and ballast material above a three (3) foot compacted clay layer. This new double composite liner system includes a three (3) foot compacted clay layer, a 30-mil secondary geomembrane layer, a geocomposite layer, a geosynthetic clay liner, a 30 mil primary geomembrane layer, a non-woven geotextile layer, and a one (1) foot thick ballast layer (crushed/screened stone). The closure of Fac Pond 5 will include the removal of ballast materials and double composite liner system components, excluding the 3-foot secondary clay liner. The clay liner will remain in place and is subject to required chemical sampling as indicated in Section 1.10.5(b).

1.11.2 PCB WAREHOUSE

The PCB Warehouse will be decontaminated as indicated in Section 1.8.2.B. As both TSCA and RCRA materials are stored in this building, sampling will be conducted using the procedures in Section 1.10.2 and 1.10.3. In addition to grid sampling in the storage areas, the loading/ unloading area and the direct pathway from the loading/unloading area to the storage area will be sampled. CWM will use a path that generally follows the route of movement of wastes once received at the facility. If any signs of spillage are observed outside the warehouse, those areas will be sampled, analyzed and decontaminated if necessary. This building and the adjacent driveway will remain after closure.

Based on past CMS investigations of the area to the south of the warehouse, soils contamination has been indicated. The Draft Addendum to the Site Wide and SWMU Specific CMS (Golder Associates Inc., July 1996) was submitted to the agencies on July 2, 1996. Installation of a Groundwater Extraction System (GWES) in this area was completed in 1997 and is now operational. Financial assurance for the operation of this system has been included with the other GWES.

1.11.3 DRUM STORAGE BUILDING

The Drum Storage Building will be decontaminated as indicated in Section 1.8.2.B. As both TSCA and RCRA materials are stored in this building, sampling will be conducted using the

procedures in Section 1.10.2 and 1.10.3. In addition to grid sampling in the storage areas, the loading/ unloading area and the direct pathway from the loading/unloading area to the storage area will be sampled. CWM will use a path that generally follows the route of movement of wastes once received at the facility. If any signs of spillage are observed outside the warehouse, those areas will be sampled, analyzed and decontaminated if necessary. This building and the adjacent driveway will remain after closure.

1.11.4 PROCESS AREA

The Process Area was previously used for various solvent recovery and fuels blending operations which are no longer present. Previous fuels tanks in this area have been removed (see Section 1.5). Secondary containment for the tanks has been decontaminated and the run-off from the concrete has been demonstrated to be suitable for management as surface water. At closure, the "T.O." Building, where transformers are emptied and PCB oils are stored, will be decontaminated as indicated in Section 1.8.2.B.

During the RFI investigation in 1991, more than 400 soil samples were taken in the area identified as Groups G & H (Process Area, including Tank Farms A, B, C, D, E, Distillation and Thermal Oxidation Areas) in the Corrective Action Module of the Sitewide Permit (see Schedule 1, Exhibit B and Attachment E). Based upon the volatiles and PCB contamination found throughout this area, it was determined that a release has occurred from the tanks formerly located in this area, and that the area must be managed as a SWMU and in accordance with 6 NYCRR 373-2.14(g)(2)(i) and (v).

To prevent the migration of the contamination within the soil, two Interim Measures Ground Water Extraction Systems (Process Area I and II) were installed down gradient of the Process Area. In January, 1995, as required by 6 NYCRR 373-2.6 and the Corrective Action Module, CWM submitted a report titled SITE-WIDE CORRECTIVE MEASURES STUDY. The contamination found in the Process Area was described in Sections 6.1, 6.2, and Table 6-14. The risk assessment for various exposure pathways (present and future) is discussed in Section 6.3. Section 10.3 includes the recommendation for Corrective Measures for this area. It includes continued groundwater sampling, continued operation of PA I&II GWES and a Facility Awareness program to communicate the potential for exposure if excavation is performed in the future. Construction of a DNAPL collection system for EW10 and EW13 was completed in 1997 and is now operational.

Since the RFI has determined that there is contamination throughout the Process Area, there is no need to sample the soil beneath this area. The site-wide CMS submitted in January, 1995 included a risk assessment of this contamination and proposed appropriate corrective measures. Based on the “Statement of Basis” issued by the NYSDEC on January 31, 2001.

Additional soil sampling and analysis have been included for the Process Area. The Draft Addendum to the Site Wide and SWMU Specific CMS (Golder Associates Inc., July 1996) was submitted on July 2, 1996. This addendum included a provision for an additional groundwater extraction trench to be constructed north of the Lagoons Area which was completed in 1997 and is now operational.

Continued operation of the GWES is addressed in the Financial Assurance Plan for Interim Measures Systems.

1.11.5 AQUEOUS WASTE TREATMENT SYSTEM (AWTS) AND CALGON BUILDING

AWTS is the only unit likely to remain operational during the landfill post-closure period. The unit will continue to process leachate from the on-site landfills until it is decided to ship the leachate off site for treatment or disposal. At that time, AWTS will undergo closure. All buildings used for solid, hazardous or TSCA waste storage or management will be thoroughly decontaminated and left standing at closure. All waste storage, process, and reagent tanks will be managed as indicated in Section 1.8. AWTS storage tanks that manage waste prior to it being filtered through the carbon absorption unit are assumed to have contacted PCBs at greater than (>) 50 ppm by contact PCBs and therefore must be managed as TSCA/RCRA wastes. Tanks will be emptied and managed as indicated in Section 1.8.3. Ancillary piping and pumps will be managed in accordance with Section 1.8.6.

The filter presses will be pressure washed and then wipe tested for PCB contamination. If PCB contamination is present, the presses will be dismantled and managed as TSCA waste.

The carbon absorption unit will be emptied and its contents will be shipped off-site for regeneration or incineration. The tank itself will be decontaminated and disposed of on site or at an off-site landfill.

Process and holding tanks in line after the carbon unit will be rinsed, dismantled and disposed of in compliance with Federal Land Disposal Restrictions.

Tank containment areas external to the buildings will be managed as described in Section 1.8.5.2. The containment areas surrounding the AWT facility are considered part of the process area and will be addressed as described in section 1.11.5. The tank containment for the leachate storage tanks T-101, 102, 103 will also be cleaned as per 1.8.5.2 and left in place.

1.11.6 STABILIZATION

The Closure Plan scenario is based upon the following:

- Treatment of remaining inventory through the Stabilization Unit or removal for treatment off site;
- On or off-site disposal of remaining waste residuals and raw materials;
- Sampling for PCB contamination;
- Decontamination of treatment units, equipment and building;

- Dismantling or removal of equipment for reuse or disposal;

All buildings and equipment to be decontaminated will be cleaned as specified in Section 1.8.2 and 1.8.6. Both the pits and the drum shredder area manage PCB wastes. The pits will be subject to PCB wipe sampling to confirm decontamination as provided for tanks. Further, the air pollution control equipment (i.e. duct work, baghouses) is also PCB contaminated equipment and will be dismantled and disposed of as RCRA and/or PCB debris. All tanks will be managed according to Section 1.8.3. Wash waters will be collected and analyzed as indicated in Section 1.10.3. Collected decontamination rinsate will be treated in the on-site AWTS, as well as the process water contained in the two (2) 20,000 gallon storage tanks. Solid treatment residuals will be disposed of on-site or at an appropriate off-site facility.

The trailer staging area, as a concrete and paved area, will be managed as per 1.8.5.2 and left in place. The area will be decontaminated in the same manner as the building and must be subject to PCB sampling and decontamination as per 1.8.5.1.A. The entire Stabilization process, including the roll-off storage area, is contained. Therefore, soil sampling and analysis will be unnecessary. Roll-off boxes will be decontaminated and sold for reuse or reused at Model City or another CWM facility. Unused reagents will be transported to another site for use or will be used at Model City. Reagent containers will be managed as specified in Section 1.8.3.

1.11.7 RMU-1

The Closure Plan for Residuals Management Unit No. 1 (RMU-1) is part of the RMU-1 Part 373 Permit.

1.11.8 RMU-2

The Closure Plan for Residuals Management Unit No. 2 (RMU-2) is part of the RMU-2 Part 373 Permit.

1.11.9 LABORATORY

The main laboratory at Model City will remain standing at closure, but will be emptied of all chemicals, samples and waste materials and decontaminated as specified by Section 1.8.2. All other laboratories on site will be emptied and cleaned in a similar fashion.

1.11.10 TRUCK WASH AREA AND BUILDING

The truck wash building will be one of the last units to be closed. It will be decontaminated in keeping with Section 1.8.2.

1.11.11 TRUCK SAMPLING AREA

The truck untarping and sampling area is unpaved and will be subject to random soil sampling. The approximately 2,500 square foot area (50' x 50') will be divided up into a grid of 10 ft. x 10 ft. squares. Each square will have one (1) randomly selected sample taken at a depth of 1 inch. Sampling in this area will be primarily to verify that no contamination is present and will be conducted as specified in Section 1.10.5.A. Samples will be composited according to quadrant into four (4) composite samples that will be analyzed for PCBs, VOC, and metals. In addition, the sampling platforms will be removed and scrapped or landfilled.

1.11.12 TRAILER PARKING AREA

The Full Trailer Park will be managed as a concrete containment structure in accordance with Sections 1.8.5.1.A & 1.10.2.B since this area may be used for storage of PCB wastes.

The Trailer Staging Area is permitted for the storage of full and empty roll-offs or cargo tanks. All full containers will be managed on site, if possible, or shipped for appropriate disposal off site. The "full" side is concrete and will be swept as indicated in Section 1.8.4 and then washed, with the rinse water analyzed as spelled out in Section 1.10.3. The criteria in 1.10.5.C will be used to determine if the concrete is clean. Due to the long history of use for this unit, the concrete will be removed and disposed of on site or at an appropriate off-site facility. The underlying soil will be sampled in similar fashion to the unpaved portion of the parking area as indicated below.

The "empty" side is unpaved and will be sampled to verify that no contamination exists. The lot will be divided up into fifty foot grid sections (50' x 50') and two random surface soil samples will be taken per grid section. The samples will be composited and analyzed in keeping with Section 1.10.5.A.

If any staining or visible contamination is present on either side, additional analysis and decontamination will be performed in keeping with this plan.

2.0 CLOSURE COST ESTIMATE

A Closure Cost Estimate has been developed which represents the cost of closure of the entire Model City facility. A copy of the Closure Cost Estimate will be kept on file at the facility and will be updated annually to reflect changes in costs brought about by inflation or deflation and by changes to facility units or operations. The Department of Commerce's Annual Implicit Price Deflator for Gross National Product (published by the U.S. Department of Commerce in the publication "Survey of Current Business") will be used to make adjustments.

3.0 FINANCIAL ASSURANCE FOR CLOSURE CARE

CWM Chemical Services, LLC, has established surety bonds as the selected financial assurance mechanisms for closure of the Model City facility. These financial assurance instruments have the New York State Department of Environmental Conservation as beneficiary.

SECTION I.2

RMU-2 Post Closure Plan

ARCADIS
Infrastructure, environment, buildings

Imagine the result

WASTE MANAGEMENT, INC.

CWM Chemical Services, LLC

Post-Closure Plan

Residuals Management Unit 2

Model City Facility
1550 Balmer Road
Model City, Niagara County, New York

April 2003
Revised August 2009
Revised February 2013

ARCADIS

Residuals Management Unit 2
Post-Closure Plan
April 2003
Revised August 2009
Revised February 2013

Tables

ARCADIS

Residuals Management Unit 2
Post-Closure Plan

April 2003
Revised August 2009
Revised February 2013

1. Post-Closure Procedures and Activities

1.1 Introduction

This Post-Closure Plan for the Residuals Management Unit 2 (RMU-2) at the CWM Chemical Services, LLC (CWM) Model City Facility has been developed in accordance with the requirements of 6 New York Codes, Rules and Regulations (NYCRR) Subpart 373-2, Sections 373-2.7, 373-2.8 and 373-2.14(g). A cost estimate for the post-closure care for RMU-2 has been submitted under separate cover.

All hazardous waste disposal units are required to have a Post-Closure Plan that identifies the activities that must be carried on after the facility is closed. The regulations require that post-closure care of the facility be continued for 30 years after the date of completion of closure, unless the Commissioner of the New York State Department of Environmental Conservation (NYSDEC) has determined that a reduced period is sufficient to protect human health and the environment. However, in the case of RMU-2, CWM will provide post-closure care in perpetuity, unless this permit condition is changed or deleted by a modification granted by the Commissioner.

This Post-Closure Plan provides: 1) that the need for further maintenance is minimized and 2) that the post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall or waste decomposition products to groundwater or surface waters or to the atmosphere is controlled, minimized or eliminated so as to protect human health and the environment.

This Post-Closure Plan for RMU-2 at the Model City Facility identifies post-closure care activities that will be carried out after closure and certification of closure. This Post-Closure Plan presents the requirements for periodic groundwater and leachate monitoring, site inspections and maintenance activities, as well as measures to restrict site access. The Post-Closure Plan provides that potential pollutant migration from the facility via groundwater, surface water and air is controlled. This is discussed in the Model City Post-Closure Groundwater Monitoring Plan (Section 1.4.1) and the Model City Leachate Monitoring Plan (Section 1.4.2). There will be no potential for migration via surface-water pathways because all disposal units will be closed.

A copy of the approved Post-Closure Plan and any subsequent revisions will be kept at the Model City Facility until the facility post-closure period begins. At that time, an updated copy of the approved plan will be kept at the corporate offices of Waste Management, Inc., presently located in Houston, Texas.

During the unit's operational lifetime, conditions or operations may be modified such that the Post-Closure Plan will require changes. The general manager, or his designate, will be responsible for maintaining and updating this Post-Closure Plan. The general manager may be contacted at the following address and telephone number:

Mr. Michael Mahar
District Manager
CWM Chemical Services, LLC
1550 Balmer Road
Model City, New York 14107
(716) 286-0241

According to 6 NYCRR Part 373-2.7(h)(4), the owner or operator may request a permit modification to authorize a change in the approved Post-Closure Plan in accordance with the applicable requirements of Subpart 373-1 and Part 621 of Title 6. For a proposed change in facility design or operation, the owner or operator must submit a written request for a permit modification at least 60 days prior to the proposed change, or no later than 60 days after an unexpected event has occurred that has affected the Post-Closure Plan.

1.2 Post-Closure Activities

This Post-Closure Plan addresses post-closure facility care of RMU-2 at the Model City Facility. The post-closure care period will begin when the unit is closed. During the post-closure care period, it is assumed that the on-site permitted aqueous waste treatment operations will continue for leachate treatment. However, this operation may be carried out at an off-site plant. The year 2041 is projected as the final closure date for the Model City Facility, except for essential processes, such as the aqueous waste treatment operations. RMU-2 final closure is projected for 2025, assuming initiating operations in 2014 and a maximum disposal rate of 500,000 tons per year. Disposal at a lower rate will extend the landfill life.

1.3 Post-Closure Inspection Plan

The closed unit (RMU-2) listed above will be inspected at the frequencies listed in Table 1 and/or after storm events resulting in 4 or more inches of liquid precipitation per 24 hours. The purpose is to provide for the continued operation of the final closure measures taken to prevent migration of hazardous constituents. Inspection of the general site will focus on access barriers and security control devices (e.g., fences,

locks, gates) to see that they are visible and functioning properly. The components of RMU-2 that will be inspected include: 1) the cover, 2) the stormwater control system, 3) the leachate collection system, 4) the leachate detection system, if applicable, 5) the groundwater monitoring system and 6) mechanically stabilized earth (MSE) wall. Inspection procedures for each of these items are described in more detail below. Criteria for the post-closure inspection are included in Sections 1.3, 1.4 and 1.5.

The cover will be inspected for: 1) the condition of the vegetation, 2) signs of erosion and 3) subsidence. Inspections will include visual observations to determine any gross movement of the slopes and settlement of the structure. Cap settlement will be monitored by this inspection activity. When an inspection shows that sections of the cover have subsided, those sections will be repaired in a manner consistent with the nature of the subsidence; that is, by appropriate backfilling, regrading and/or reseeding.

The protection provided by the cover vegetation should be complete; repairs to bare spots will include reseeding, fertilizer application and soil conditioning. As part of the visual inspection, the inspector will look for erosion rivulets or slides on the slopes; for signs of settling and unevenness along the top edge and for signs of accumulated liquids (puddles, dampness) on the sloping sides of the berms. The facility manager (or his designee) will review the inspector's comments and determine what maintenance work is needed to correct the problem. Mitigating actions that may be implemented include improving the vegetation and altering contours to prevent stormwater runoff from reaching scour velocities.

Additionally, inspections will be conducted in the event of specific regional seismic events of at least a Richter Scale magnitude of 6.5, within a 100-mile radius of the Model City Facility. Visual inspections of all units will be conducted with the objective of noting any surface cracking and/or signs of geotechnical instability (e.g., twisting, cracking or rotating of tanks, containment areas, manholes, sideslope risers, vaults or other objects) and noting of tension cracks in any structures within the affected areas.

Stormwater runoff is controlled by a series of drainage ditches. The drainage ditches will be inspected for surface deterioration (i.e., erosion), and following 24-hour, 25-year frequency storm events resulting in 4 or more inches of liquid precipitation per 24 hours. Such surface deterioration will be repaired as weather conditions permit. Diversion ditches and culverts will be inspected at the same monthly intervals to see that silt, weeds or debris do not accumulate and interrupt flow. The drainage ditches, diversion ditches and culverts will be kept cleared and functional.

The leachate collection and transmission systems will be inspected to determine that they are operational. The inspection will cover the physical condition and operational status of the manholes, sumps, pumps, valves, piping and electrical system. Any operational problems identified will be remedied.

If leachate is being treated through the on-site aqueous waste treatment system (AWTS), the leachate collection system, as an operating waste management unit, will be monitored and inspected by using the inspection schedule as required under the Part 373 Facility Inspection Plan. However, once the AWTS ceases to treat the leachate, the leachate-level alarm systems will continue to be inspected at the frequency specified in Table 1. In addition, leachate inventory will also be checked. This inventory may be performed less frequently, as leachate production drops off.

If a primary leachate pipe is determined to be leaking, that line shall immediately be removed from service. It shall be repaired or replaced and tested prior to being returned to service. During this period, alternate leachate pumping shall be conducted.

The groundwater monitoring system will be inspected during each sampling event to determine that it is functioning properly. Monitoring wells and casings will be inspected for defects and to determine that covers are secured. Groundwater sampling pumps will be replaced or repaired whenever a sufficient sample cannot be obtained.

The MSE wall will be visually inspected annually by a Qualified Geotechnical Engineer. The inspections will specifically target observations of horizontal movement along the top and the toe of the berm, signs of vertical movement (settlement) along the slope, significant change in the slope of the berm facing, significant erosion and the condition of vegetation.

1.4 Post-Closure Monitoring Plan

1.4.1 Groundwater Monitoring Plan

1.4.1.1 Introduction

Upon completion of the useful life of RMU-2, the unit will be capped. However, given that wastes will remain within the unit, the potential for leachate migration and subsequent contamination of groundwater will exist. In accordance with 6 NYCRR 373-2 Regulations, a Groundwater Sampling and Analysis Plan (GWSAP) has been developed for the Model City Facility.

The pre-closure GWSAP will be followed during the post-closure period in order to provide a means to detect the presence of hazardous constituents and to prevent their migration from the Model City Facility. The plan will utilize the monitoring wells installed for the active facility groundwater monitoring program.

1.4.1.2 Sampling Locations

The facility groundwater monitoring well locations discussed in the pre-closure plan will also be used for monitoring the groundwater in Zones 1 and 3 during the post-closure period. Information on monitoring well locations can be found in the GWSAP.

1.4.1.3 Monitoring Parameters

Sampling parameters required during the post-closure period by the NYSDEC and United States Environmental Protection Agency (USEPA) are listed in the GWSAP and the Toxic Substance Control Act Approval Letter issued by the USEPA.

The sampling parameters anticipated for the post-closure period for RMU-2 are summarized as follows:

Unit No.	Parameters
RMU-2	pH
	Specific Conductivity
	Site-specific Volatile Organic Compounds (VOC)

1.4.1.4 Sampling Methods

The sampling methodology for RMU-2 discussed in the GWSAP will be followed in the post-closure period. In addition, CWM will keep records of sampling and the associated groundwater elevations throughout the period of post-closure. The sampling devices installed in the wells will be used during post-closure sampling. The operation of these devices is described in the GWSAP.

The monitoring wells will be checked periodically when sampled to determine that they are functioning properly over the post-closure period. Inoperable wells will be appropriately decommissioned, as required by the NYSDEC-approved well abandonment procedures (see B. Senefelder to P. Counterman 6/5/89).

1.4.1.5 Analytical Methods

The organic constituents selected for the Detection Monitoring Program will be analyzed according to USEPA SW-846 procedures. As the samples are taken, specific conductivity and pH will be measured using field meters. The methodologies that will be used for sample analysis are contained in the GWSAP.

1.4.1.6 Monitoring Frequency

The monitoring schedule utilized during the post-closure period will be to sample the wells that were installed as part of the facility GWSAP for RMU-2. All wells for RMU-2 will be sampled as indicated in Table 1. Sampling parameters are listed in Section 1.4.1.3.

1.4.2 Leachate Monitoring Plan

1.4.2.1 Introduction

The liquid in the secondary leak detection systems will be pumped weekly, and the calculated gallons per acre per day will be used for comparison to the volumes contained in the RMU-2 Response Action Plan. Secondary leachate will be sampled and analyzed as specified in this section.

1.4.2.2 Sampling Locations for Secondary Leachate

Required sampling will occur at the secondary sideslope riser of each cell.

1.4.2.3 Monitoring Parameters and Frequencies

Leachate will be sampled and analyzed for the following:

- Primary standpipes will be sampled biannually for Priority Pollutant (PP) Metals, polychlorinated biphenyls and VOCs.

- Secondary standpipes will be sampled biannually for VOCs and annually for Organic Priority Pollutants and PP Metals.

1.4.2.4 Sampling Methods

The sampling methodology will be consistent with USEPA-recognized methods. When samples must be collected from sideslope risers, the pump located in each collection sump will be used to draw samples. If no pump is present or if the pump is non-operational, an alternate method, such as a dipper bottle will be used. Records of the sampling and analysis will be maintained throughout the post-closure care period.

1.4.2.5 Analytical Methods

VOCs will be analyzed according to USEPA SW-846 procedures. Some of the methods that will be used for sample analysis are contained in the documents entitled *Methods for Chemical Analysis of Water and Wastes* (USEPA 600/4-82-55) and the current edition of *Standard Methods for the Examination of Water and Wastewater*.

1.4.2.6 Monitoring Time Period

Primary leachate sampling will be suspended following the closure of RMU-2. Secondary leachate sampling will continue in perpetuity.

1.4.3 Surface Water Monitoring

There is no surface-water monitoring associated with RMU-2. Each year during post-closure care, the effluent surface-water monitoring points will be monitored as specified in CWM's State Pollutant Discharge Elimination System Permit.

1.5 Post-Closure Maintenance Plan

Maintenance activities will be required to maintain the integrity of the cover, containment structures, MSE wall, leachate system and monitoring equipment for the closed secure landfill. Inspection and other maintenance activities will be carried out as specified in Section 1.3.

The function and integrity of the final cover for the unit will be maintained as specified in the closure plan for the facility. In the event deficiencies are discovered, the following corrective measures may be implemented: 1) repair or replacement of any synthetic cover material that may have been breached and/or 2) filling, grading, compacting and revegetating any breach in the natural cover soil that may have occurred.

The vegetative cover will be preserved during the growing season. The topsoil will be reseeded and mulched, as needed, in areas subject to excessive erosion.

Fertilizer will be added, as needed. No irrigation will take place because meteorological conditions in the area are conducive to plant growth. Spraying for vector control will be conducted, as necessary.

The permanent benchmarks will be inspected to verify their presence and to ascertain that damage-prevention measures are being observed in compliance with 6 NYCRR Part 373-2.14(g)(2)(vi). This item will be noted as part of the inspection criteria for closed landfills. Inspection and maintenance of the security fence, locks and security devices will be conducted.

Specific repairs or maintenance may be the result of a visual inspection of the MSE wall, as discussed in Section 1.3. Common repairs may include trimming of woody vegetation along the face of the berm, filling in of animal burrows, cleanup of vandalism, restoration of eroded areas, drainage improvements, repair of erosion or other surficial damage or repairs to the welded wire forms, facing or reinforcement.

1.6 Post-Closure Certification

Within 60 days after completion of the established post-closure period for each hazardous waste disposal unit, CWM must submit to the Commissioner of the NYSDEC, by registered mail, certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved Post-Closure Plan. A similar certification is required to be submitted to the Commissioner of the NYSDEC within 60 days after completion of the post-closure care period for the entire facility. These certifications must be signed by CWM and an independent professional engineer registered in New York State.

For RMU-2, no post-closure certification costs are included because CWM is providing funds for perpetual post-closure care. No post-closure care end date will be set.

2. Post-Closure Cost Estimate

Post-closure cost estimates have been prepared under separate cover. This estimate represents the costs of post-closure care for RMU-2 and reflects the costs of monitoring and maintenance activities required in perpetuity.

This post-closure cost estimate will be kept on file at the CWM site. Following closure of the Model City Facility, the estimate will be retained at the Houston, Texas offices of Waste Management, Inc. It will be revised whenever a change in the Post-Closure Plan affects the cost of post-closure and will be adjusted annually to reflect changes in post-closure costs brought about by inflation or deflation. The Department of Commerce's Annual Implicit Price Deflator for Gross National Product (published by the United States Department of Commerce in the publication "Survey of Current Business") is a typical source that may be used to make this adjustment.

2.1 Perpetual Care Costs

The present value of the cost of perpetual care shall be defined according to the following Present Value Formula:

$$A \times \left[\sum_{t=1}^{\infty} \frac{MMC_t}{(1+K)^t} \right] \times \left[\frac{1}{1+K} \right]^n$$

MMC_t is the anticipated cost of annual monitoring, maintenance and care during the year numbered “t” from the applicable starting date. The applicable starting date is the first year after closure. The factor “n” equals 0 plus the number of years from present until estimated closure. Annual anticipated MMC_t will be the anticipated cost of reimbursing a third party to complete all monitoring, maintenance, and care activities in that year. “A” represents a factor adjusting for contingencies (equal to 5% of MMC_t) and administrative costs (equal to 5 percent of MMC_t) (i.e., A = 1.10). The applicable discount rate is represented by the letter “k” and is 0.0396 (representing a 3.96 percent rate of discount).

As t approaches ∞ (infinity), the expression can be simplified to:

$$A \times \left[\frac{MMC_t}{K} \right] \times \left[\frac{1}{1+K} \right]^n$$

where:

$\frac{MMC_t}{[\ K\ ]}$ = perpetuity value and $\left[\frac{1}{1+K}\right]^n$ factor adjusts the perpetuity value to present dollars.

CWM proposes to provide financial assurance, which, at all times, is equal to the greater of the amount required by either: 1) 373-2.8 (post-closure cost estimate equal to the number of years remaining in the 30-year post-closure period times annual operation and maintenance cost) or 2) the amount calculated as the present value for perpetual care commencing in the first year after closure. Separate annual operation and maintenance cost estimates for years 1 through 30 and year 31 and beyond of the post-closure period have been prepared for these periods and are provided under separate cover.

3. Financial Assurance for Post-Closure Care

CWM currently uses a surety bond and a letter of credit as the selected financial assurance mechanism for post-closure care of the Model City Facility. Additional or revised mechanisms will be selected as the financial instrument for providing post-closure of RMU-2. These financial assurance instruments identify the NYSDEC as the beneficiary. CWM reserves the right to change financial assurance mechanisms as outlined in 6 NYCRR Part 373-2.8(f)(3). These financial assurance mechanisms will be updated annually to coincide with annual updates of the facility post-closure and perpetual care costs.

TABLE 1
POST-CLOSURE/PERPETUAL CARE SITE-WIDE AND LANDFILL MONITORING/MAINTENANCE FREQUENCIES

CWM CHEMICAL SERVICES, LLC
MODEL CITY, NEW YORK FACILITY

Component Description	FREQUENCIES
Landfill Inspections	Yr 1, 12/yr
	Yr 2, 4/yr
	Yr 3-10, 2/yr
	>11yr, 1/yr
MSE Wall Inspection	1/yr
Stormwater Management System Inspection	Yr 1, 12/yr
	Yr 2, 4/yr
One additional inspection over the 25-yr period for a 25 yr storm event.	Yr 3-10, 2/yr
	>11yr, 1/yr
Landfill Leachate System Inspection	Yr 1, 12/yr
	Yr 2, 4/yr
	Yr 3-10, 2/yr
	>11yr, 1/yr
Perimeter Fence-line Inspection	Yr 1-30, 2/yr
	>30yr, 1/yr
Mowing	Yr 1-30, 1/yr
	>30yr, 1/yr
MSE Wall Maintenance	1/yr
Fertilizing	as needed
Groundwater Monitoring	Yr 1-30, 2/yr
	>30yr, 1/5yr