

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: McKesson Envirosystems (Inland Site)
Facility Address: 400 Bear Street West, Syracuse, NY 13204
Facility EPA ID #: NYD075806836

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination? (**Note: This determination addresses contaminated media regulated under New York State's Inactive Hazardous Waste Disposal Site Remedial Program.**)

- If yes - check here and continue with #2 below.
- If no - re-evaluate existing data, or
- if data are not available skip to #6 and check the "IN" status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved) to track changes in the quality of the environment. The two EI developed to date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPR). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be "contaminated"¹ above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	<u>x</u>	—	—	(see below)
Air (indoors) ²	—	<u>x</u>	—	
Surface Soil (e.g., <2 ft)	—	<u>x</u>	—	
Surface Water	—	<u>x</u>	—	
Sediment	—	<u>x</u>	—	
Subsurf. Soil (e.g., >2 ft)	<u>x</u>	—	—	(see below)
Air (outdoors)	—	<u>x</u>	—	

— If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

X If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

— If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

This facility was used since the 1930s as a bulk petroleum distribution terminal for products such as gasoline, diesel fuel, and heating oil. In 1973, the facility was converted to a chemical distribution terminal. The storage tanks were used for temporary staging of spent solvents, recycled solvents, and for storing mixtures and by-products. Evidence of contaminated soil from spilled liquids was noted during site inspections. Soil samples taken in 1984 revealed the presence of hazardous waste contaminants. Additional soil sampling done by the facility also revealed contamination. Groundwater contamination has also been documented, and contaminant levels are in excess of NYSDEC Class GA ambient water quality standards contained in 6 NYCRR Part 703.

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

²Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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In response to the presence of hazardous waste at the site, the McKesson Corporation conducted an RI in 1988 and 1989 to define the nature and extent of contamination. The RI results are presented in a report entitled *Final Remedial Investigation Report* (April 1990). The RI identified significant contamination in both soil and groundwater. A supplemental investigation of saturated soil and groundwater was initiated in 1995 and documented in a report entitled *Supplemental Saturated Soil and Groundwater Investigation Report* (September 1996). The following tables summarize the chemicals of concern (COCs) identified in groundwater (Table 1) and soil (Table 2) at the site and their relation to applicable standards or established cleanup goals.

Table 1. Chemicals of Concern in Groundwater

Groundwater Contaminant	Maximum Concentration (ppb)	Frequency Exceeding Standard	Part 703 Groundwater Standard (ppb)
Benzene	2,000	19 of 175	0.7
Toluene	430 (J)	12 of 175	5
Ethyl benzene	610	14 of 175	5
Xylenes	2,800	14 of 175	5
Trichloroethene	60,000 (J)	4 of 175	5
Methylene chloride	7,700,000	22 of 175	5
Methanol	430,000	--	--
Acetone	470,000	4 of 175	50
Aniline	39,000	31 of 175	5
N,N-dimethylaniline	380,000	21 of 175	5

Table 2. Chemicals of Concern in Unsaturated Soil

Soil Contaminant	Maximum Concentration (ppm)	Soil Cleanup Goals (ppm)
Benzene	11.5	10
Toluene	17	10
Ethyl benzene	49	10
Xylenes	218	10
Trichloroethene	140	10
Methylene chloride	827	10
Methanol	13,072	10
Acetone	833	10
Aniline	282	10
N,N-dimethylaniline	1830	10

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3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential Human Receptors (Under Current Conditions)

"Contaminated"	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>			<u>no</u>
Air (indoors)	___	___	___				
Soil (surface, <2 ft)	___	___	___		___	___	___
Surface Water	___	___			___	___	___
Sediment	___	___			___	___	___
Soil (subsurface, >2 ft)				<u>no</u>			<u>no</u>
Air (outdoors)	___	___	___	___	___		

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.
2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

- X** If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).
- If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.
- If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

A Consent Order (CO) was negotiated with the facility by the DEC for the remediation of soil and groundwater. The old storage tanks and distribution lines on the property were cleaned and removed in 1988. A Feasibility Study (FS) was completed by the facility and documented in a

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish)

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report entitled *Feasibility Study Report* (November 1993). The 1993 FS addressed unsaturated surface soils only, the area referred to as Operable Unit-1 (OU-1). A Record of Decision (ROD) was issued in March 1994 which called for in-situ aerobic bioremediation of the unsaturated soils comprising OU-1. The remedial action objectives (RAO) for OU-1 were to:

- reduce the concentrations of the COCs in unsaturated soils to levels which will mitigate the potential leaching of these chemicals to groundwater
- monitor groundwater to verify that COCs are not migrating off-site
- establish institutional controls to prevent future use of site groundwater

The bioremediation successfully treated an estimated 20,000 cubic yards of contaminated soil. Soil verification sampling indicated that all of the COCs were reduced to concentrations less than the cleanup level of 10 ppm as specified in the ROD (see *Remedial Design/Remedial Action Report for OU-1*, September 1995). The treated area was subsequently covered with a minimum of 12 inches of clean soil and reseeded to prevent human exposure to remaining surficial soil contamination. Deed restrictions were also placed on the use of site groundwater.

Remediation of groundwater and saturated soils at the site (designated as OU-2) was the subject of a FS completed in 1996 which was documented in a report entitled *Feasibility Study for Operable Unit No. 2 - Saturated Soils and Groundwater* (January 1997). A ROD for OU-2 was signed in March 1997 and called for anaerobic bioremediation of groundwater and saturated soils. The RAOs established for OU-2 were to:

- reduce, control, or eliminate the concentrations of COCs in saturated soils at the site
- attain NYSDEC Class GA water quality standards, to the extent feasible, for the COCs present in on-site groundwater
- monitor groundwater to document groundwater quality and identify any migration of COCs beyond the property boundary

Design and construction of the anaerobic bioremediation system was completed in early 1998. Details on the remedial construction activities are presented in the report entitled *Remedial Design/Remedial Action Report for OU-2* (December 1999). Required operation, maintenance and monitoring (OM&M) activities are specified in the *Site Operation and Maintenance Plan* prepared by the facility (December 1999). Sampling of groundwater from monitoring wells downgradient of the anaerobic treatment zone indicate that the remedy is performing as expected and that the plume is not migrating. Also, because the site is located in an industrial area which is served by public water and use of on-site groundwater is restricted, exposure to groundwater contamination associated with the site is not expected.

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4. Can the exposures from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**⁴ (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

_____ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

_____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s): _____

5. Can the "significant" exposures (identified in #4) be shown to be within acceptable limits?

_____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

_____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

_____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s): _____

⁴ If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

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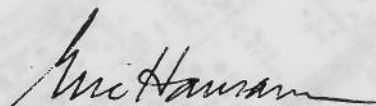
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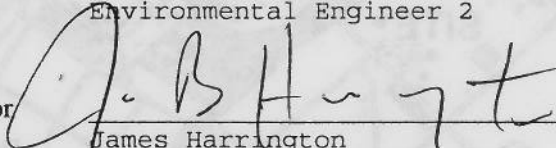
6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):


YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the McKesson Envirosystems (Inland Site) facility located at 400 Bear Street West, Syracuse, NY 13204 under current and reasonably expected conditions. This determination will be re-evaluated when the State becomes aware of significant changes at the facility.

NO - "Current Human Exposures" are NOT "Under Control."

IN - More information is needed to make a determination.

Completed by  Date 9/26/00
Eric Hausamann
Environmental Engineer 2

Supervisor  Date 9/28/00
James Harrington
Bureau of Program Management
Division of Environmental Remediation

Director  Date 9/29/2000
Paul J. Merges, Ph.D.
Bureau of Radiation and Hazardous Site Management
Division of Solid and Hazardous Materials

Locations where References may be found:

New York State Department of Environmental Conservation
Region 7 Office
615 Erie Boulevard West
Syracuse, NY 12304

Contact telephone and e-mail numbers

Charles Branagh
(315) 426-7551
cjbranag@gw.dec.state.ny.us

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.



County: Onondaga

0 500 1000 1500 2000



FEET

Scale 1:24,000



Site Location Map

734020 McKesson Envirosystems (Inland Site)

NYS DOT Planimetric Quadrangle(s):

New York State Department of Environmental Conservation
Division of Solid and Hazardous Materials

Bureau of Radiation & Hazardous Site Management, Room 460
30 Wolf Road, Albany, New York 12233-7252
Phone: (518) 457-9253 • FAX: (518) 457-9240
Website: www.dec.state.ny.us



October 5, 2000

Mr. James Reidy
Chief, NY Corrective Action Section
USEPA Region II
290 Broadway
2AWM-HWF
New York, NY 10007-1866

Dear Mr. Reidy:

Re: Environmental Indicator Forms

Enclosed are the completed Environmental Indicator Forms for the following facilities:

GE Hornell - CA725 & CA750
McKesson - CA725 & CA750
Phillips Display (Ferroxcube) - CA725.

Please note that the CA750 Environmental Indicator Forms for the Phillips Display (Ferroxcube) facility is not being submitted at this time. A potential migration pathway along the bedrock below the facility is currently under investigation. Further remediation is anticipated in this regard.

If you have any questions, please contact Bruce Terbush at (518) 457-9253.

Sincerely,

A handwritten signature in black ink that reads 'Roger D. Murphy'.

Roger D. Murphy
Chief, Western Engineering Section

Enclosure

cc: J. Harrington
P. Merges
B. Terbush

BT/jab envindicforms.wpd

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Facility Name: McKesson Envirosystems (Inland Site)
Facility Address: 400 Bear Street West, Syracuse, NY 13204
Facility EPA ID #: NYD075806836

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination? (Note: This determination addresses contaminated media regulated under New York State's Inactive Hazardous Waste Disposal Site Remedial Program.)

- If yes - check here and continue with #2 below.
 If no - re-evaluate existing data, or
 if data are not available, skip to #8 and check the "IN" status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Is **groundwater** known or reasonably suspected to be “contaminated”¹ above appropriately protective “levels” (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.

If no - skip to #8 and enter “YE” status code, after citing appropriate “levels,” and referencing supporting documentation to demonstrate that groundwater is not “contaminated.”

If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

This facility was used since the 1930s as a bulk petroleum distribution terminal for products such as gasoline, diesel fuel, and heating oil. In 1973, the facility was converted to a chemical distribution terminal. The storage tanks were used for temporary staging of spent solvents, recycled solvents, and for storing mixtures and by-products. Evidence of contaminated soil from spilled liquids was noted during site inspections. Soil samples taken in 1984 revealed the presence of hazardous waste contaminants. Additional soil sampling done by the facility also revealed contamination. Groundwater contamination has also been documented, and contaminant levels are in excess of NYSDEC Class GA ambient water quality standards contained in 6 NYCRR Part 703.

In response to the presence of hazardous waste at the site, the McKesson Corporation conducted an RI in 1988 and 1989 to define the nature and extent of contamination. The RI results are presented in a report entitled *Final Remedial Investigation Report* (April 1990). The RI identified significant contamination in both soil and groundwater. A supplemental investigation of saturated soil and groundwater was initiated in 1995 and documented in a report entitled *Supplemental Saturated Soil and Groundwater Investigation Report* (September 1996). The following tables summarize the chemicals of concern (COCs) identified in groundwater (Table 1) at the site and their relation to applicable standards.

¹ “Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate “levels” (appropriate for the protection of the groundwater resource and its beneficial uses).

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Table 1. Chemicals of Concern in Groundwater

Groundwater Contaminant	Maximum Concentration (ppb)	Frequency Exceeding Standard	Part 703 Groundwater Standard (ppb)
Benzene	2,000	19 of 175	0.7
Toluene	430 (J)	12 of 175	5
Ethyl benzene	610	14 of 175	5
Xylenes	2,800	14 of 175	5
Trichloroethene	60,000 (J)	4 of 175	5
Methylene chloride	7,700,000	22 of 175	5
Methanol	430,000	-	-
Acetone	470,000	4 of 175	50
Aniline	39,000	31 of 175	5
N,N-dimethylaniline	380,000	21 of 175	5

3. Has the migration of contaminated groundwater stabilized (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"² as defined by the monitoring locations designated at the time of this determination)?

If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the horizontal or vertical dimensions of the "existing area of groundwater contamination".

If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination") - skip to #8 and enter "NO" status code, after providing an explanation.

If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

A Consent Order (CO) was negotiated with the facility by the DEC for the remediation of soil and groundwater at the site. Remediation of groundwater at the site (designated as OU-2) was the subject of a FS completed in 1996 which was documented in a report entitled *Feasibility Study for Operable Unit No. 2 - Saturated Soils and Groundwater* (January

² "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

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1997). The Record of Decision (ROD) for OU-2 was signed in March 1997 and called for anaerobic bioremediation of groundwater and saturated soils. The remedial action objectives (RAOs) established for OU-2 were to:

- reduce, control, or eliminate the concentrations of COCs in saturated soils at the site
- attain NYSDEC Class GA water quality standards, to the extent feasible, for the COCs present in on-site groundwater
- monitor groundwater to document groundwater quality and identify any migration of COCs beyond the property boundary

Design and construction of the anaerobic bioremediation system was completed in early 1998. The *in situ* system includes hydraulic containment to mitigate off-site plume migration. Monitoring to date indicates that no off-site migration of groundwater COCs is occurring.

4. Does "contaminated" groundwater discharge into surface water bodies?

If yes - continue after identifying potentially affected surface water bodies.

If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

Based on the RI/FS for the site, no surface water discharges are known to exist.

5. Is the discharge of "contaminated" groundwater into surface water likely to be "insignificant" (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

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_____ If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration³ of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

_____ If unknown - enter "IN" status code in #8.

Rationale and Reference(s): _____

6. Can the discharge of "contaminated" groundwater into surface water be shown to be "currently acceptable" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

_____ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater, OR 2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/ habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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If no - (the discharge of "contaminated" groundwater can not be shown to be "currently acceptable") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s): _____

7. Will groundwater monitoring / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

If no - enter "NO" status code in #8.

If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

In accordance with the Operation, Maintenance & Monitoring (OM&M) Plan for the site (Blasland, Bouck & Lee 1999), sampling of groundwater from monitoring wells downgradient of the anaerobic treatment zone is performed semi-annually and analyzed for a suite of chemical and biological parameters. Results to date indicate that the remedy is performing as expected and also that the plume is being contained and is not migrating.

**Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)**

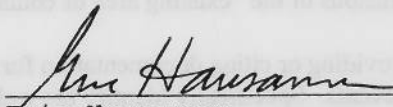
Page 7

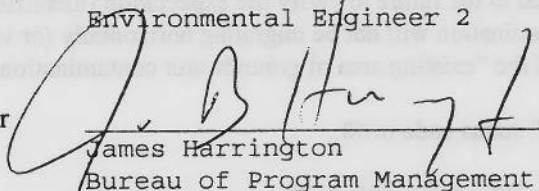
8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

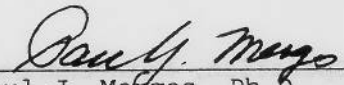
YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the McKesson EnviroSystems (Inland Site) facility located at 400 Bear Street West, Syracuse, NY 13204. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater". This determination will be re-evaluated when the State becomes aware of significant changes at the facility.

NO - Unacceptable migration of contaminated groundwater is observed or expected.

IN - More information is needed to make a determination.

Completed by  Date 9/26/00
Eric Hausamann
Environmental Engineer 2

Supervisor  Date 9/28/00
James Harrington
Bureau of Program Management
Division of Environmental Remediation

Director  Date 9/29/2000
Paul J. Meiges, Ph.D.
Bureau of Radiation and Hazardous Site Management
Division of Solid and Hazardous Materials

Locations where References may be found:

New York State Department of Environmental Conservation
Region 7 Office
615 Erie Boulevard West
Syracuse, NY 12304

Contact telephone and e-mail numbers

Charles Branagh
(315) 426-7551
cjbranag@gw.dec.state.ny.us



Site Location Map

734020 McKesson Envirosystems (Inland Site)

NYS DOT Planimetric Quadrangle(s):



0 500 1000 1500 2000



Scale 1:24,000



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

001 13 2004

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Jean Mesher
Director of Environmental Services
McKesson Corporation
1 Post Street, 32nd fl.
San Francisco, CA 94104

Re: McKesson Envirosystems
Syracuse, New York
EPA ID No.: NYD075806836

Dear Ms. Mesher:

Pursuant to the Government Performance and Results Act (GPRA), the U.S. Environmental Protection Agency (EPA) Region 2 is required to establish a baseline of treatment, storage and disposal facilities regulated under Subtitle C of the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments (HSWA). Specifically, EPA is responsible for tracking progress at these facilities (hereinafter referred to as the "GPRA RCRA corrective action baseline" or "baseline") with regard to remediation and/or compliance monitoring for determining the effectiveness of the chosen remedies or stabilization measures and for reporting this progress to the public.

In New York State (NYS), the Department of Environmental Conservation (DEC) has received authorization for its hazardous waste management program as being fully equivalent to the federal RCRA program. Consequently, DEC is the primary regulatory organization for the implementation of the hazardous waste management program within NYS.

This is to inform McKesson Envirosystems that EPA and DEC have selected the above-referenced facility for the GPRA RCRA corrective action baseline for the year 2008. The 2008 baseline becomes effective October 1, 2005; however, we are now providing notification to you because the list will soon be made available to the public.

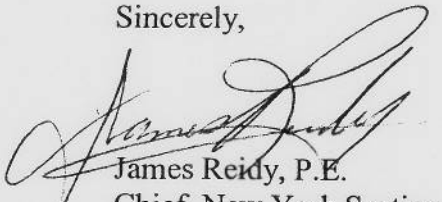
As you know, your facility is currently one of 1,714 facilities nationwide on the 2005 RCRA GPRA corrective action baseline. EPA developed two "environmental indicators" to measure the success of cleanup efforts on the 2005 baseline. Those indicators are verifying that (1) current human exposures are controlled and (2) that there is no further migration of contaminated groundwater. EPA's goals for measuring progress under the 2005 GPRA baseline are by the year 2005, 95% of these RCRA facilities have current human exposures controlled and 70% of these facilities have migration of contaminated groundwater under control.

For facilities on the 2008 baseline, these two environmental indicators will continue to be used for measuring success. The goal for the human exposure controlled indicator remains at 95%. This is because EPA and the States have designated over 1900 high priority facilities nationwide for the 2008 baseline, which is an increase on the order of 200 facilities nationwide from the 2005 baseline. The 2008 goal for the groundwater under control indicator has been increased to 80%.

Additionally, for facilities on the 2008 RCRA GPRA corrective action baseline, EPA has established two additional national measures for tracking progress. These measures are (1) the state or EPA formally selects a remedy(ies) for the entire facility designed to meet RCRA corrective action long-term goals; i.e., achieve long-term protection of human health, the environment, and groundwater, and (2) the state or EPA acknowledges that the facility has completed construction of said remedy(ies) for the entire facility. EPA's goals for measuring progress under GPRA for these two additional measures are by the year 2008, the state or EPA will have made the remedy(ies) selection determination for 30% of the facilities on the 2008 baseline and the state or EPA will have made the construction completed determination for 20% of the facilities on the 2008 baseline.

EPA and NYSDEC stand together in our commitment to assist your facility to meet or maintain positive determinations for each of these four measures of progress. Should you have any questions about the 2008 baseline, please contact Ms. Rachel Chaput, of my staff, at 212-637-4116.

Sincerely,



James Reidy, P.E.
Chief, New York Section
RCRA Programs Branch

cc: Edward Dassati, NYSDEC



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

GREGG FRANKLIN
MCKESSON ENVIROSYSTEMS
400 BEAR ST
SYRACUSE, NY 13204

Re: MCKESSON ENVIROSYSTEMS, SYRACUSE, NY
EPA I.D. #: NYD075806836

Dear GREGG FRANKLIN:

Pursuant to the Government Performance and Results Act (GPRA), the Environmental Protection Agency (EPA) is required to establish a baseline of treatment, storage and disposal facilities regulated under Subtitle C of the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments (HSWA). Specifically, EPA is responsible for tracking progress at these facilities with regard to remediation and/or compliance monitoring for determining the effectiveness of the chosen remedies or stabilization measures and for reporting this progress to the public. As you know, your facility is currently one of the 1,968 facilities nationwide on the 2008 GPRA corrective action baseline.

In New York State (NYS), the Department of Environmental Conservation (DEC) has received authorization for its hazardous waste management program as being fully equivalent to the federal RCRA program. Consequently, DEC is the primary regulatory organization for the implementation of the hazardous waste management program within NYS.

This is to inform you that EPA and DEC have selected the above-referenced facility for the GPRA RCRA corrective action baseline for the year 2020. The 2020 baseline becomes effective October 1, 2008; however, we are now providing notification to you because the list will soon be made available to the public.

DEC and EPA have compiled a list of 176 facilities located in NYS deemed appropriate and important to address using the RCRA Corrective Action program or other regulatory remedial programs. On a national level, there are 3,880 facilities. Because this set of 3,880 facilities has national remediation goals which will need to be achieved on or before the year 2020, it is referred to as the 2020 Universe. As a result, DEC and EPA expect that a final sitewide remedy will be in place i.e. remedy construction completed and operational, at all 176 NYS facilities on or before 2020 (although actual attainment

of cleanup goals through remedy implementation may take longer). In order to ensure full attainment of this goal, we expect most facilities will achieve final sitewide remedy completion sooner than 2020. If we haven't already done so, we will be in communication with you to develop a plan and a schedule that achieves this goal and documents all remedial activities already implemented at the above referenced facility.

Inclusion on the 2020 Universe list does not imply failure on your part to meet any legal obligation nor should it be construed as an adverse action against you. It only means that DEC and EPA have identified the above referenced facility as needing to complete sitewide remedy construction before the end of 2020. Accordingly, progress will be measured for each facility in the 2020 Universe. The list of facilities will be posted on April 16, 2007 on EPA's web site at

<http://www.epa.gov/correctiveaction>

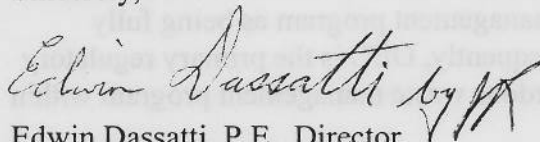
If any information needs to be updated on RCRA program forms submitted on behalf of the facility, you may access the appropriate EPA forms and instructions at

<http://www.epa.gov/epaoswer/hazwaste/data/Forms8700forms.htm>

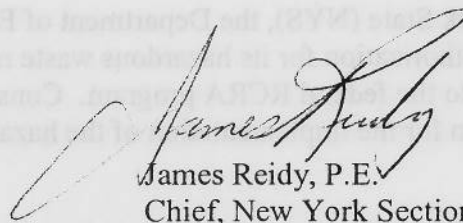
If further assistance is needed, please contact Jack Hoyt of EPA-Region 2 at 212-637-4106.

DEC and EPA stand together in our commitment to assist your facility to meet this goal in a timely fashion. Should you have any questions about this notification letter or the 2020 Universe baseline, please contact James Reidy at 212-637-4172 or by e-mail at Reidy.James@epa.gov.

Sincerely,



Edwin Dassatti, P.E., Director
Bureau of Hazardous Waste
and Remediation Management
NYSDEC



James Reidy, P.E.
Chief, New York Section
RCRA Programs Branch
USEPA



STATE OF NEW YORK DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

September 26, 2006

SEP 29 2006
Bureau of Environmental Health Services or
Radiation Management
Division of Solid & Hazardous Materials

Mr. Stephen Hammond, Director
Division of Solid and Hazardous Waste
NYS Department of Environmental Conservation
625 Broadway - 12th Floor
Albany, NY 12233-7011

Re: Performance Measures FY2006
Sitewide Remedy Selection and Sitewide
Remedy Construction
McKesson EnviroSystems Site
Site I#734020
C. Syracuse, Onondaga County

Dear Mr. Desnoyers:

Staff have evaluated the potential for soil vapor intrusion to be an issue of concern at McKesson EnviroSystems site. Based upon that review, we have concluded that vapor intrusion is not a concern at the currently unoccupied site, under its present use. The Remedy Selection for this site, groundwater remediation is appropriate. This remedy is on-going and is not considered complete at this time.

If you have any questions, please call Geoffrey Laccetti at (518) 402-7860.

Sincerely,

Steven M. Bates, Assistant Director
Bureau of Environmental Exposure Investigation

- cc: G.A. Carlson, Ph.D./A. Grey, Ph.D.
- Mr. G. Litwin/Mr. S. Bates
- Mr. G. Laccetti/File
- Mr. H. Hamel - CNYRO
- Mr. G. Sauda - OCHD
- Mr. J. Burke - DEC Region 7
- Me. E. Dassatti - DEC



STATE OF NEW YORK DEPARTMENT OF HEALTH

Central NY Regional Office
217 South Salina Street Syracuse, New York 13202

Richard F. Daines, MD
Commissioner

James W. Clyne, Jr.
Executive Deputy Commissioner

May 24 2010

Mr. Payson Long
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7013

Re: Biannual Process Control Monitoring Report
McKesson Envirosystems
Site # 734020
Syracuse(C), Onondaga County

Dear Mr. Long:

I have reviewed the "2009 Biannual Process Control Monitoring Report" submitted on April 26, 2010 by Arcadis on behalf of the McKesson Corporation. The report was prepared to summarize the results of the groundwater monitoring, treatment performance, and site maintenance conducted in accordance with the approved Site Operation and Maintenance Plan. Based on my review, the report is acceptable. Monitoring of the groundwater and treatment system performance should continue in accordance with the approved Plan.

If you have any questions, please contact me at 477-8148.

Sincerely,

Richard E. Jones
Public Health Specialist II
Bureau of Environmental Exposure Investigation
Central New York Regional Office

Cc: G. Litwin/ G. Laccetti
W.Daigle- NYSDEC Central Office
G. Townsend- NYSDEC-Region 7
K. Zimmerman- OCHD

