

Specialty Chemicals

Honeywell
Route 45 North
P.O. Box 430
Metropolis, IL 62960
618 524-2111
618 524-6239 Fax

September 13, 2001

Certified Mail
7083-5489

U.S. Nuclear Regulatory Commission
Attention: Administrator Region III
801 Warrenville Road
Lisle, IL 60532-4351

Re: Reply to 10 CFR Part 20.2201(a)(1)(ii)
Event Report No. 38227

Dear Sirs:

This letter is our supplement to the telephone report made to the U.S. Nuclear Regulatory Commission ("NRC") Operations Center on August 22, 2001, concerning a missing shipment of solid waste material (the "Shipment"). As set forth below, the Shipment has been found, the site where the Shipment was deposited has been remediated, and the Shipment has been disposed of in the approved landfill.

Description of Licensed Material:

The Shipment is composed of 80% calcium fluoride and 20% calcium hydroxide (lime). The NRC classified this solid waste material as containing unimportant quantities of source material 40.13(a) on September 12, 2000. (See Attachment A) The Shipment had a net weight of 44,480 pounds, and contained 19 pounds (5,835 μ Ci) of source material.

Description of Circumstances:

Honeywell Metropolis Works is in the process of closing one of its surface impoundments (A Pond) under an Illinois EPA approved closure plan dated February 23, 2001. (See Attachment B) NRC approved the Shipment for disposal at Waste Central Specialists ("WCS") in Andrews, Texas. Honeywell started shipping solid waste material from A Pond to WCS on July 9, 2001. Wills Trucking, Inc., 3185 Columbia Road, Richfield, OH 44280 ("Wills") was the U.S. DOT licensed firm selected for the transportation of this non-RCRA/ non-hazardous material to WCS. As of this date, 477 loads have been transported (for a net weight of 10,978 tons) without incident. All the shipments of this material have been completed for this phase of the project.

A driver for Wills, Daniel Coulter, received the Shipment on Wednesday, July 25, 2001, for transportation by highway to WCS. The driver had transported two loads prior to the Shipment without incident.

On August 16, 2001, Honeywell was first informed by Wills that there was a discrepancy in the shipping documentation for the Shipment. Wills stated that the weight ticket was lost or that there may be a discrepancy concerning the shipping documentation at WCS. Honeywell requested that it be advised of all developments concerning the Shipment and that Wills take all measures to resolve the matter. It is believed that Wills determined, after several more days of investigation, that the Shipment had not been delivered to WCS for disposal. On August 22, 2001, Wills initiated an extensive search, including an aerial search, for the Shipment.

The Shipment¹ was scheduled to arrive at WCS on Friday, July 27, 2001. At the end of each week, Wills requires each driver to forward a copy of the waste manifest along with a weight ticket from WCS to the Wills trucking terminal at Gainesville, Texas for billing purposes. Wills determined that Coulter did not have the weight ticket from WCS that was to be attached to the signed manifest for the Shipment. Wills attempted to obtain the missing weight ticket from Coulter and then contacted WCS for a copy of the weight ticket. WCS advised Wills that it did not have any record of the Shipment and it also indicated that it did not have any employee with the name listed on the driver's copy of the manifest. According to Wills, upon questioning, Coulter stated that he delivered the Shipment to WCS on July 27 and that WCS had lost the paperwork.

Wills has informed Honeywell that Coulter's employment was terminated on August 16 after Wills made several attempts to obtain the weight ticket. Wills has also advised Honeywell that it determined that the waste manifest had several other inconsistencies that were not part of WCS's procedures. Despite repeated questioning, Wills has advised Honeywell that Coulter would not tell Wills where the load had been placed.

On August 16, 2001, Wills stated that it reported the Shipment to the Gainesville, Texas Police Department, which in turn recommend that Wills contact the Oklahoma State Police and/or the Texas DNR. On August 22, 2001, the Shipment was located by Wills on a ranch approximately twenty miles north of Gainesville, Texas. It is believed that an associate of Coulter's allowed the material to be dumped because Coulter told him it was lime. It was still in one pile and had been covered with a thin layer of soil.

Honeywell was notified by Wills on August 23, 2001, that the Shipment had been located. A remediation firm was hired by Wills to clean up the material. Three Honeywell employees from Metropolis Works, and one employee from the Morristown Office, were sent to the site on the corporate jet to supervise the remediation. The material, along with some soil from the site, was loaded into three 30 yd³ roll-off boxes and transported to the Wills terminal at Gainesville, Texas.

¹ The following information relating to the Shipment was received from Wills. Except as set forth above, Honeywell lacks personal knowledge regarding the Shipment once it left its premises.

Statement of Disposition of Material:

The Shipment was transported from the Gainesville terminal to WCS for disposal. These shipments were completed on August 30, 2001, and WCS has appropriately disposed of the waste material in its approved landfill.

Exposures of Individuals:

Wills finished a complete remediation within approximately three hours. The area background exposures were in the range of 10 – 20 μ R/hour and the waste material was in the same range as the background readings. Four people were used to load the material into roll-off boxes using a front-end loader. The total effective dose equivalent would be less than 6 mrem per person. The only dust that was created from loading this material came from the soil that was used to cover the waste material.

Action Taken or Will be Taken:

Wills terminated Coulter and impounded his tractor and trailer. It is believed the officials in Cook County, Texas may prosecute Coulter. No action was required by Honeywell, other than the supervision of the remediation personnel hired by Wills.


Procedures/Measures to Prevent Recurrence:

Wills is an established, licensed and respected transportation firm. The incident was an aberration and Honeywell does not anticipate any recurrence. In an abundance of caution, however, Honeywell has instituted procedures to monitor and confirm receipt of shipments at WCS.

The Honeywell project manager now e-mails a list of all loads shipped each day. WCS will then fax the load information back to Honeywell within five business days after receiving the material. This procedure permits Honeywell to more quickly confirm receipt of all shipments. Although the incident was not predictable, Honeywell will review its current transportation procedures and the qualifications for contract trucking firms for hauling waste materials from its facility.

If you have any additional questions, please contact Mr. M. L. Shepherd at 618-524-6238 or Mr. H. C. Roberts at 618-524-6349.

Sincerely,


J. William Lessig
Plant Manager

JWL/sm

Attachments

cc: A. Roy
M. Shepherd
H. Roberts

US Nuclear Regulatory Commission (Certified Mail: 7083-5496)
Attention: Chief Operations Branch
Division of Fuel Cycle Safety & Safeguards, NMSS
Washington, DC 20555

US NRC, Region III (Certified Mail: 7083-5502)
Attention: Fuel Cycle Branch Chief
801 Warrenville Road
Lisle, IL 60532-4351

US NRC (Certified Mail: 7083-5519)
Attention: Project Manager
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety & Safeguards, NMSS
Office of Nuclear Material Safety & Safeguards
Washington, DC 20555-001



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 12, 2000

Attachment 'A'

Mr. J. William Lessig
Plant Manager
Honeywell International Inc
P.O. Box 430
Metropolis, IL 62960

SUBJECT: HONEYWELL REQUEST TO SEND CALCIUM FLUORIDE WASTE
CONTAINING LESS THAN 0.05 PERCENT BY WEIGHT SOURCE MATERIAL
TO WASTE CONTROL SPECIALISTS (TAC NO. L31352)

Dear Mr. Lessig,

I am responding to your letter dated June 5, 2000, informing the US Nuclear Regulatory Commission (NRC) of your plan to transfer approximately 215,212 cubic feet of calcium fluoride waste, under 10 CFR 40.13, "Unimportant Quantities of Source Material," to Waste Control Specialists Inc. (WCS), in Texas. We have completed a technical review of the information you submitted by letters dated June 5, and July 26, 2000. 10 CFR 40.13 (a) states that, "Any person is exempt from the regulations in this part and from requirements for a license set forth in section 62 of the Act to the extent that such person receives, possesses, uses, transfers or delivers source material in any chemical mixture, compound, or alloy in which the source material is by weight less than one-twentieth of one percent (0.05 percent) of the mixture, compound, solution, or alloy." The calculated dose to any individual likely to result from transfer of the material is bounded by requirements set forth in "Staff Requirements - SECY 99 - 259 - Exemption in 10 CFR Part 40 for Materials less than 0.05 percent Source Material - Options and Other Issues Concerning the Control of Source Material," dated March 9, 2000, in which the Commission instructed the NRC staff to consider the calculated dose associated with the transfer of unimportant quantities of source material, when reviewing requests such as yours. Based on that directive, therefore, the NRC staff will allow transfers containing less than 0.05 percent by weight source material for permanent disposal if the expected dose does not exceed 100 mrem/yr and notify the Commission when the expected dose exceeds 25 mrem/yr.

The Metropolis Works laboratory indicates that the calcium fluoride waste has an average concentration of 430 ppm (291.1 pCi/gm) of natural uranium and consists of 80% calcium fluoride and 20% calcium hydroxide. An independent analysis was performed by NRC regional staff which revealed even lower concentrations of natural uranium in the range of 303 ppm (205 pCi/gm). This provides the data necessary to confirm that the waste contains source material that is less than 0.05 percent by weight (500 ppm). According to the calculations provided, the external dose was calculated by performing a direct radiation survey of the material. Airborne measurements were not taken because the moisture content of the material is between 30% to 44%. However, for purposes of this request, assumptions were made to include a conservative dust loading of 1 mg/m³ with radiation workers wearing no respirator protection. NRC staff agrees with the data provided and the assumptions made to calculate the dose. The analysis resulted in an estimated external dose of 5 mrem/yr and an internal dose of 0.5 mrem/yr with a total effective dose equivalent unlikely to exceed 6 mrem/yr.

Mr. J. William Lessig

-2-

September 12, 2000

The public dose will be considerably less than 6 mrem/yr since there is no direct contact with the material.

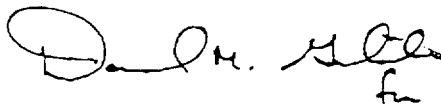
The NRC staff has performed a dose calculation using the RESRAD computer model to ensure that disposal of this material at the WCS facility would not result in a dose to the public exceeding 25 mrem/yr. The conservative resident farmer scenario, using hydrogeologic parameters specific to the WCS facility, was analyzed. The maximum resulting dose, calculated out to 1000 years, was significantly less than 25 mrem/yr.

Since the calcium fluoride waste contains source material under 0.05 percent by weight as specified in 10 CFR 40.13(a), and the disposal of the material would not result in a dose to the public exceeding 25 mrem/yr no additional NRC action is required for the transfer of this material for disposal at WCS. It is noted, however, that the other requirements, such as those imposed by the Texas Natural Resource Conservation Commission and the Texas Department of Health, may apply to the transfer and disposal of the material. Therefore, we suggest you contact the Texas officials on this matter.

If you have any further questions, please contact Leslie Fields of my staff at 301-415-6267.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,



Philip Ting, Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

Docket 40-3392
License SUB-526

Enclosures:

1. Ltr requesting transfer of calcium fluoride
dtd 6/5/00
2. Ltr responding to NRC's 6/14/00
RAI dtd 7/26/00



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276

THOMAS V. SKINNER, DIRECTOR

217/524-3300

February 23, 2001

CERTIFIED MAIL

7099 3400 0002 1429 3168

Rhonda Perry
 Honeywell International, Inc.
 2768 N. U.S. 45 Road
 P.O. Box 430
 Metropolis, Illinois 62960

Re: 1278540002 -- Massac County
 Honeywell International, Inc.
 ILD006278170
 Log No. B-65-M-9
 RCRA Permit File

Dear Ms. Perry:

This is in response to your September 15, 2000 and November 27, 2000 submittals, received by the Illinois EPA on September 18, 2000 and November 22, 2000 respectively. Your submittals request to modify the closure plan for the surface impoundment (S04) known as A Pond, and, upon approval of the modified closure plan, to implement closure of A Pond.

The Illinois EPA has reviewed the information contained in your submittals and has determined that Honeywell International, Inc. may implement the modification. This determination is based upon our review of (1) the RCRA Part B Permit issued to Honeywell International, Inc. (2) the regulations [35 Ill. Adm. Code Subtitle G] and (3) the information contained in your submittals. Operations must be conducted in accordance with the approved RCRA Part B Permit and all subsequent modifications.

The closure of A Pond must be carried out in accordance with the conditions below.

1. Except as modified by this letter, closure activities shall be carried out in accordance with your September 15, 2000 and November 27, 2000 submittals.
2. If necessary, sludge shall be dewatered in A Pond. Water that drains from the sludge shall be transported to E Pond.

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3. In accordance with the Illinois EPA's July 28, 2000 letter, the dewatered sludge (sludge that does not contain free liquids as determined by the Paint Filter Test, SW-846 Method 9095A) may be transported off-site as non-hazardous special waste.
4. Pre-closure sampling of the sludge shall be conducted in accordance with the approved closure plan.
5. If a staging area is necessary, the dewatered sludge shall be stored in the staging area depicted on Figure 3-1 of the approved closure plan. Every effort shall be taken to keep the dewatered sludge in the staging area dry. While the sludge is in the staging area, the following conditions shall apply:
 - a. At the end of each day or if precipitation appears to be imminent, the sludge shall be covered with visquene or other similar cover material prior to leaving the site. The cover material shall be secured with sand bags or other means to ensure the cover will not blow off.
 - b. If the sludge in the staging area becomes wet, it shall be moved back to A Pond as soon as practicable for dewatering. Sludge shall not be kept in the staging area for purposes of dewatering.
 - c. Any liquid that accumulates in the staging area shall be transported to E Pond.
6. Sludge shall be transported off-site in covered containers. Manifests and shipping documents shall include instructions to extinguish fires with foam or other non-hydrating material, and shall indicate appropriate spill control measures.
7. All sludge, liners, and soil shall be disposed of off-site at a facility permitted to accept the waste.
8. The following conditions shall apply to the soil removal and soil verification sampling in A Pond.
 - a. After the A Pond liner and granular leachate drainage layer have been removed, a minimum of six inches of soil beneath A Pond shall be removed.
 - b. After six inches of soil have been removed, soil samples shall be taken from the locations shown in Figure 3-7 of the approved closure plan.
 - c. If the soil samples referenced in Part b. above indicate the soil does not meet the cleanup objectives specified in Condition 11, additional soil shall be removed.

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- d. If additional soil is removed, soil verification samples shall be taken from the locations shown of Figure 3-7 of the approved closure plan, in the areas where additional soil is removed.
 - e. Additional soil shall be removed until soil verification samples indicates the soil meets the clean up objectives in Condition 11.
9. Soil verification sampling shall be conducted in accordance with the approved closure plan. Soil verification samples shall be taken from A Pond, the staging area (if used), and the decontamination pad, in the locations shown in the approved closure plan. Background soil samples shall be taken from the locations shown on Drawing No. MTW-A2267 in the approved closure plan.
10. If soil sampling in the staging area and decontamination area indicates the soil does not meet the clean up objectives in Condition 11, soil shall be removed until soil verification sampling indicates the soil meets the clean up objectives in Condition 11.
11. At a minimum, the soil verification samples shall be analyzed for arsenic, fluoride, and lead. Clean up objectives shall comply with 35 Ill. Adm. Code, Part 742, TACO, Tier 1 Industrial/Commercial objectives. As part of the Closure Documentation Report, an institutional control meeting the requirements of 35 Ill. Adm. Code 742, Subpart K shall be submitted.
12. If Honeywell International, Inc. wishes to develop clean up objectives under 35 Ill. Adm. Code 742, TACO, Tier 2, they shall submit a request to the Illinois EPA requesting Tier 2 clean up objectives and document how the Tier 2 clean up objectives were arrived at. This request shall be made prior to using the Tier 2 clean up objectives to determine if "clean" closure has been achieved.
13. Honeywell International, Inc. shall notify the Illinois EPA, Marion Regional Office, when work will be conducted, or when work schedules change. This notification shall be made at least one day in advance, or as soon as practicable. The Marion Regional Office may be contacted at 618/993-7200.
14. While closure activities are being conducted, Honeywell International, Inc. shall send bimonthly (every two months) progress reports to the Illinois EPA. The progress reports shall be in a format similar to the progress reports previously submitted regarding Violation Notice Number L-1999-01420.
15. Closure activities shall be completed by July 31, 2002. In accordance with 35 Ill. Adm. Code 724.215, when closure is complete, a certification must be submitted to the Illinois EPA by the owner/operator and an independent professional engineer that the hazardous waste

Page 4

management unit has been closed in accordance with the specifications in the approved closure plan. The certification must be received by the Illinois EPA within sixty (60) days after the completion of closure, or by October 1, 2002.

The attached closure certification form must be used. Signatures must meet the requirements of 35 Ill. Adm. Code 702.126. The independent engineer should be present at all critical, major points (activities) during closure (sludge sampling and removal at least some of the time, liner removal, soil sampling, soil removal, backfilling, final cover placement, etc.). The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the units approved for closure herein until the Illinois EPA approves the facility's closure certification.

The Professional Engineering Practice Act (225 Illinois Compiled Statutes 325/1-325/49) requires that any person who practices professional engineering in the State of Illinois or implies that he (she) is a professional engineer must be licensed under that Act. Therefore, any certification or engineering services which are performed for a closure plan in the State of Illinois must be done by an Illinois P.E.

Plans and specifications, designs, drawings, reports, and other documents rendered as professional engineering services, and revisions of the above must be sealed and signed by a professional engineer in accordance with Paragraph 325/14 of the Professional Engineering Practice Act.

As part of the closure certification, to document the closure activities at your facility are in accordance with 35 Ill. Adm. Code 724.215, a Closure Documentation Report must be developed and submitted to Illinois EPA along with the closure certification statement that includes the following:

- a. Background information about the facility overall and the overall closure project.
- b. A description of the unit closed (include scaled maps showing location of unit within the facility and layout of unit, information related to construction of the unit, identification of wastes managed in the unit).
- c. A general discussion of all completed closure activities and what was accomplished as a result of completing these activities.
- d. The volume of waste, waste residue and contaminated soil removed. The term waste includes wastes resulting from decontamination activities.
- e. A description of the method of waste handling and transport.

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- f. Copies of the waste manifest.
- i. Information documenting the results of all sampling/analysis efforts. The goal of presenting this information should be to describe, in a logical manner, the activities and results associated with the sampling/analysis effort. At a minimum, this information must include:
 - (1) identification of the reason for the sampling/analysis effort and the goals of the effort;
 - (2) a map showing the locations of all samples taken;
 - (3) a summary in tabular form of all analytical data, including all quality assurance/quality control data;
 - (4) identification of the test method used and detection limits achieved, including sample preparation, sample dilution (if necessary) and analytical inferences;
 - (5) copies of the final laboratory report sheets, including final sheets reporting all quality assurance/quality control data;
 - (6) a summary of all procedures used for quality assurance/quality control, including the results of these procedures; and
 - (7) a discussion of the data, as it relates to the overall goal of the sampling/analysis effort.
- j. Color photo documentation of closure. Document conditions before, during and after closure.
- k. The amount of soil removed from the bottom of A Pond, the staging area, and decontamination area. Include both the total volume of soil removed, and the depth of soil removed.
- l. A map showing the amount of soil removed from A Pond, if greater than six inches of soil is removed.
- m. A chronological summary of closure activities and the cost involved.

The original and two (2) copies of all certifications, logs, or reports required to be submitted to the Illinois EPA should be mailed to the following address:

Illinois Environmental Protection Agency
Bureau of Land -- #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

16. Quality assurance/quality control procedures which meet the requirements of SW-846 (Test Methods for Evaluating Solid Wastes, Third Edition and any finalized updates) must be implemented during all required sampling/analysis efforts.
17. This facility must continue to meet the applicable requirements of 35 Ill. Adm. Code 700-724 for those units identified on the latest Illinois EPA approved Part A application not approved for closure herein.
18. The approval of this partial closure plan does not relieve Honeywell International, Inc. of the responsibility of providing financial assurance for the remainder of the facility which is subject to closure, in accordance with 35 Ill. Adm. Code 724, Subpart H.
19. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.
20. A revised cost estimate and financial assurance instruments shall be submitted with the closure certification documents.
21. Under the provisions of 29 CFR 1910, cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.
22. Closure activities shall be conducted in accordance with any applicable Nuclear Regulatory Commission requirements.
23. All waste generated as part of this project must be managed in accordance with the requirements of 35 Ill. Adm. Code 721, 722, 723, 728, 808 and 809.

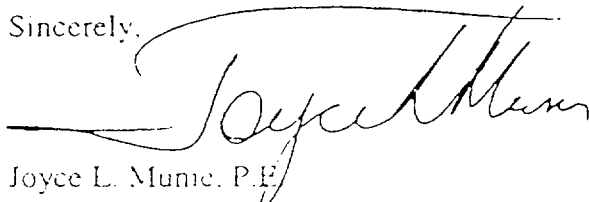
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24. All hazardous wastes that result from this project are subject to annual reporting as required in 35 IAC 722.141 and shall be reported to the Illinois EPA by March 1 of the following year for wastes treated and left on-site or shipped off-site for storage, treatment and/or disposal during any calendar year. All non-hazardous special wastes that are shipped to a facility located outside the State of Illinois that result from this project are subject to annual reporting as required in Section 22.01 of the Illinois Environmental Protection Act and 35 Ill. Adm. Code 809.601(g) and shall be reported to Illinois EPA by February 1 of the following year. Additional information and appropriate report forms may be obtained from the Illinois EPA by contacting:

Administrative Compliance Unit
Division of Land Pollution Control #24
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, IL 62794-9276

If you have any questions regarding this letter please contact Sean Chisek, P.E. at 217/524-3867.

Sincerely,



Joyce L. Muncie, P.E.
Manager, Permit Section
Bureau of Land

JLM:SCC.bjh:3365s.doc

AD SCC

Attachment: Closure Certification Form

cc: Mark Robbins, TRC
Harriet Croke, U.S. EPA-Region V

bcc: Bureau File
Marion Region
Scott Kautman
Steve Nightingale
Sean Chisek

CLOSURE CERTIFICATION STATEMENT

Honeywell International, Inc.

Closure Log No. B-65-M-9

To meet the requirements of 35 Ill. Adm. Code 724.215, this statement is to be completed by both a responsible officer of the owner/operator (as defined in 35 Ill. Adm. Code 702.126) and by an independent licensed professional engineer upon completion of closure. Submit one copy of the certification with original signatures and two additional copies.

The hazardous waste surface impoundment known as A Pond, and described in Permit Application, Log No. B-65-M-9, has been closed in accordance with the specifications in the approved closure plan. A report documenting that closure has been carried out in accordance with the approved plan is attached.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

 USEPA ID Number

 Facility Name

 Signature of Owner/Operator Date
 Responsible Officer

 Name and Title of Owner/Operator
 Responsible Officer

 Signature of Licensed P.E. Date

 Name of Licensed P.E. and Illinois License
 Number

 Mailing Address of P.E.:

 Licensed P.E.'s Seal: