



**SUMMARY AND RESPONSE TO COMMENTS  
DRAFT PART I PERMIT  
INTERNATIONAL PAPER COMPANY  
JOPLIN, MISSOURI  
EPA ID# MOD007129935**

The Missouri Department of Natural Resources (hereafter the Department) and U.S. Environmental Protection Agency (hereafter EPA) Region 7 issued final hazardous waste permits to International Paper Company (hereafter the Permittee). The Department issued the final Missouri Hazardous Waste Management Facility Part I Permit. The EPA issued the final Hazardous and Solid Waste Amendments Part II Permit. The final permits require the Permittee to continue post-closure care of the site, continue groundwater remediation activities, establish groundwater and leachate monitoring programs around the Corrective Action Management Unit (CAMU), and initiate closure activities and post-closure care of the former kick-back area and drip pad.

The Department conducted the public participation activities for the draft Part I Permit, as outlined in Code of State Regulations 10 CSR 25-8.124(1)(A)10. At the same time, the EPA conducted the public participation activities for the draft Part II Permit, as described in Code of Federal Regulations 40 CFR 124.10(c). The Department and the EPA issued the public notice for both permits together. The Department and the EPA invited the public to review and offer written comments on the draft permits during a 45-day public comment period. The public comment period began August 3, 2013, and ended September 16, 2013.

All written comments received during the public comment period concerning the draft Part I Permit are listed below. The Department's response to each comment and an explanation of how each comment was addressed in the final Part I Permit is also included. The Department changed certain requirements in the final Part I Permit based on technical or legal issues brought up by the comments. All changes made in the final Part I Permit are identified in the responses. This Summary and Response to Comments was prepared according to the requirements in 10 CSR 25-8.124(1)(A)17.

**COMMENTS FROM DEPARTMENT STAFF:**

**Comment #1:**

Prior to permit finalization the Department focused efforts on updating the federal RCRAInfo database for hazardous waste sites. During this focused research, it was determined that the reference to Corrective Action Management Units "CAMUs" should have been to Corrective Action Management Unit "CAMU" as the previous request by the Permittee was for one CAMU to facilitate movement of bioremediated soil managed in the historical landfarms.

**Response #1:**

The Department changed the Final Part I Permit language to substitute the term "CAMU" for all references to "CAMUs."

## **COMMENTS FROM INTERNATIONAL PAPER COMPANY (IPCO)**

**Draft Permit Language, page 6. The fourth bullet includes the Cleanup Action Work Plan dated October 17, 2011.**

### **IPCO Comment #1:**

IPCO recommends that the Cleanup Action Work Plan dated October 17, 2011 be replaced with the Cleanup Action Work Plan-Revision 1.0 dated August 20, 2012. Page 6 of the draft permit has been revised accordingly.

### **Department Response #1:**

The final Part I Permit language has been changed to incorporate the language above.

**Draft Permit Language, page 6. The last bullet states, “Resource Conservation and Recovery Act Facility Investigation (RFI) Report dated November 2008 and...,”**

### **IPCO Comment #2:**

The date November 2008 should be replaced with October 2008. Page 6 of the draft permit has been revised accordingly.

### **Department Response #2:**

The final Part I Permit language has been changed to incorporate the language above.

**Draft Permit Language, pages 11 and 14 and page 84, Table 3. Under the Schedule of Compliance Section I.A. and Submittal of Required Information No. I, the draft permit states that the Permittee is to submit to the Department two paper copies and one searchable electronic copy of the “consolidated permit application” which is defined as the Approved Permit Application documents listed on page 6 of the draft permit, any changes resulting from the public comment period, and all additional documents required to be submitted under Schedule of Compliance. In addition, No. II under Submittal of Required Information requires that one paper copy and one searchable electronic copy of the “consolidated permit application” is to be submitted to the EPA.**

### **IPCO Comment #3:**

The Department is currently in possession of at least one set (EPA also has at least one set) of all the documents listed as the “Approved Permit Application”. In addition, the Department received two copies of the 2004 RCRA Post-Closure Permit Application as part of the original submittal. Via email on August 13, 2013, Sherri Harvey of EarthCon contacted Nathan Kraus of the Department regarding this requirement. Mr. Kraus responded via email on August 13, 2013 that the Department is in possession of the previously- submitted documents that make up the Approved Permit Application. Therefore, unless changes to these documents need to be made after the public comment period, there is no need to submit additional copies of those documents listed on Page 6.

Condition I.A., page 11, has been revised to state that two paper copies and one searchable electronic copy of any changes made to the consolidated permit application would be submitted within 60 calendar days after the effective date of the Permit.

Condition I. and II., page 14, has been revised to remove the consolidated permit application copy requirements.

Table 3, page 84, has been revised to remove the consolidated permit application copy requirements.

**Department Response #3:**

Condition I.A., page 11: The Department agrees that clarification is needed regarding this requirement. The Department only requires additional paper copies of sections of the permit application that are changed due to any comments received during the public comment period. The Department would still require one searchable electronic permit application for Departmental ease of use.

The final Part I Permit language has been changed to read, “Submit to the Department two paper copies of any changes resulting from public participation comments on the draft permit, and one searchable electronic copy, of the consolidated permit application as required by 10 CSR 25-7.270(2)(B)7. and defined in the Introduction of this Permit.”

Condition I. and II., page 14: The final Part I Permit language has been changed to incorporate the language above.

Table 3, page 84: The Department agrees that only changes resulting from comments and one searchable application would need to be submitted.

The final Part I Permit language has been changed to read, “Two paper copies of any changes, and one searchable electronic copy of the consolidated permit application.”

**Draft Permit Language, page 17 No. 5. In the event that a significant ground subsidence or collapse occurs anywhere on the Permittee’s property, the Permittee shall notify the Department verbally or in writing within five calendar days of becoming aware of a subsidence or collapse feature. The Permittee shall allow the Department to inspect the feature in order to evaluate the subsidence or collapse prior to conducting any repairs. The Permittee shall, within 30 calendar days of the Department’s written request, submit a plan for repair of the feature to the Department for review and approval. Any repair plan submitted to the Department shall contain post-repair reporting provisions that include providing detailed documentation of the location, repair work conducted, before and after photographs, etc., in a final report to the Department.**

**IPCO Comment #4:**

Subsidence is a common occurrence in the City of Joplin as a result of mining activities during the late 1800s and early 1900s. IPCO recommends that should a subsidence or collapse occur beneath the CAMUs or SWMUs, that repairs be conducted in accordance

with the Department-approved Subsidence Contingency Plan. In addition, IPCO recommends that should a subsidence or collapse occur on site in areas other than the CAMUs or SWMUs that repairs be completed in an expeditious manner, and documented and reported in the following Annual Groundwater Monitoring/Corrective Action Progress (AGM/CAP) Report. Page 17 has been revised accordingly.

**Department Response #4:**

The Department agrees that subsidence is a common occurrence in and around the Joplin area; however, as operation of a corrective action pump and treat system continues, the occurrence of a subsidence and/or collapse has the potential to be caused by the continued pumping of groundwater from beneath the facility. While subsidence and/or collapse has the potential to do more damage to engineered structures if it occurs beneath the CAMU or Solid Waste Management Units, any subsidence or collapse on the facility property has the potential to be environmentally significant, hence, timely response action(s) for any potential or actual subsidence/collapse occurrences should be treated the same.

The final Part I Permit language has not been changed from that contained in the draft Part I Permit in response to this comment.

**Draft Permit Language, pages 20, 26, and 31. The term “Drip Pads.”**

**IPCO Comment #5:**

The term “Drip Pads” should be changed to “Drip Pad” as there is only one Drip Pad. Pages 20, 26, and 31 were revised accordingly.

**Department Response #5:**

The final Part I Permit language has been changed to incorporate the language above.

**Draft Permit Language, Table 1, pages 23 and 24. Groundwater Protection Standard (GPS).**

**IPCO Comment #6:**

Currently, IPCO uses Pace Analytical Services (Pace) to analyze groundwater samples. The method detection limits in Table 1 have been revised to reflect the method detection limits provided by Pace and developed in accordance with Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846).

**Department Response #6:**

Table 1 of the final Part I Permit has been changed to incorporate the noted method detection limits (MDLs). The changes to the MDLs have necessarily resulted in additional changes to Table 1. The maximum concentration limits (MCL) for specific hazardous constituents have been modified to be identical to the changed MDLs in cases where the underlying MCL basis was “(e)” and the changed MDL was higher than that specified in the draft Part I Permit. This change was applied to benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, and dibenzo(a,h)anthracene. In addition,

the underlying MCL basis for 2,4-dinitrotoluene; 2,6-dinitrotoluene and pentachlorophenol was changed from “(c)” and “(a),” respectively, to “(e)” and these three parameters were added to Table 1 footnote (e) with the “(c)” and “(a),” designations, respectively, shown there.

**Draft Permit Language, page 25, B. Groundwater in the vicinity of these CAMUs shall also be monitored as outlined in the current version of the approved sampling and analysis plan which shall include the following:**

**IPCO Comment #7:**

A Sampling and Analysis Plan (SAP) was submitted in 2004 as an appendix to the Part B Permit Application, a Quality Assurance Project Plan (QAPP) was submitted in 2012 as an appendix to the Part B Permit Application update and a Groundwater Monitoring Plan was submitted in 2013 at the Department’s request. IPCO requests clarification regarding to which SAP the draft permit refers.

**Department Response #7:**

The Schedule of Compliance, page 11, F, requires submission of a Revised SAP incorporating all requirements and changes outlined in the Final Part I Permit. This revised SAP is a comprehensive replacement for the 2004 SAP and 2013 Groundwater Monitoring Plan submitted as part of the permitting process and must be reflective of the new Final Part I Permit requirements. The quality assurance project plan does not need to be revised and resubmitted but should be referenced in and/or appended to the revised SAP.

**Draft Permit Language, page 25, B.1. Well No. J-11.19.**

**IPCO Comment #8:**

Well No. J-11-19 should be J-11.119. Page 25, B.1. has been revised accordingly.

**Department Response #8:**

The final Part I Permit language has been changed to correct the well designation.

**Draft Permit Language, page 25, B.3. Sampling and analysis of CAMU leachate to identify hazardous constituents and related contaminants that might be released.**

**IPCO Comment #9:**

As described in IPCO’s letter to the Department dated December 5, 2012, leachate samples were collected from Tanks 5, 7A and 7B on September 21, 2012 and analyzed for Appendix IX constituents. Results of the analyses indicated no detectable concentrations of site-specific constituents. Therefore, IPCO recommends that the leachate be sampled once every five years for site-specific constituents. Page 25, B.3 has been revised accordingly.

**Department Response #9:**

The Draft Part I Permit did not propose a schedule for sampling frequency regarding the leachate generated by the CAMU. The intent was to identify the monitoring parameters for the CAMU leachate and leave it to the Permittee to propose the sampling frequency in the revised SAP required by the Permit that is to be submitted to the Department for review and approval. Once the SAP is approved, the sampling frequency for the leachate contained therein would govern and any future changes in this frequency could be handled through SAP revision instead of a Part I Permit modification. If the 5 year (or any specified) sampling frequency is included in Part I Permit and the frequency needed to change, this would require a permit modification and public notice.

The final Part I Permit language was not changed from the draft Part I Permit language in response to this comment.

**Draft Permit Language, page 30, d. The Permittee shall perform well-specific surface and subsurface integrity inspections within seven calendar days following any naturally-occurring (contact of wells by flood waters, tornado, etc.).**

**IPCO Comment #10:**

IPCO requests that the well inspections be performed within 14 days instead of seven days. The additional time will allow site personnel to address conditions that could be potentially hazardous to human health and to assist local authorities. Page 30 has been revised accordingly.

**Department Response #10:**

The Department agrees that the timeliness of these inspections should not take precedence over protection of human health and assessment of potential personnel hazards.

The final Part I Permit language has been changed to 14 days in lieu of the 7 days specified in the draft Part I Permit.

**Draft Permit Language, pages 32 and 33, Condition B.3., Non-Aqueous Phase Liquid (NAPL) Detection, Measurements, and Recovery.**

**IPCO Comment #11:**

IPCO recommends that NAPL measurements be obtained annually instead of quarterly in monitoring wells where NAPL has not been observed in the previous five years (i.e., wells J-08.28, J-08.120, and J-23.18). The NAPL recovered at the IPCO-Joplin facility, the majority of which is creosote, is viscous with reduced mobility. Therefore, IPCO also recommends that well J-23.43R be monitored and the NAPL extracted on a quarterly basis instead of monthly. As shown below, the volume of NAPL extracted from well J-23.43R has decreased from 4.75 gal/yr to 1.15 gal/yr in the last six years. If given additional time to accumulate and settle, more NAPL may be extracted. Pages 32 and 33 have been revised accordingly.

**Department Response #11:**

The Department agrees with the Permittee’s assessment above regarding NAPL recovery. The proposed schedule for NAPL detection/recovery shall be outlined in an updated NAPL recovery plan included with the submission of the revised, updated SAP required by the Schedule of Compliance in the Permit. The NAPL recovery plan should also address any plans to increase monitoring rates and/or add monitoring wells to the NAPL recovery plan, as applicable.

The final Part I Permit language has been changed to read: “Per the NAPL recovery plan, included in the facility’s SAP, the Permittee shall attempt to measure, record and/or recover any light or dense NAPL from monitoring wells which have demonstrated phase separation; and, detect, measure, record and/or recover, any light or dense NAPL from monitoring wells which have not demonstrated phase separation. At a minimum, the NAPL recovery plan shall outline the timeframe for NAPL recovery from wells that have demonstrated phase separation, and the timeframe for NAPL detection from wells that have not demonstrated phase separation. The plan shall also identify criteria that will be used to identify wells that should be added to or removed from the list of wells monitored for NAPL. NAPL recovered from the oil water separator shall be used to estimate the quantity of NAPL recovered from the active pumping wells (LSR-8 and MR-4). The NAPL shall be monitored prior to sampling in other monitoring wells where groundwater samples are obtained in compliance with this Permit. Where dedicated down-hole equipment is present, such measurements shall be made at least once every two years.”

**Draft Permit Language, page 33, 4. Subsurface Collapse Monitoring.**

**IPCO Comment #12:**

To clarify the subject matter in No. 4, IPCO recommends that No. 4 be renamed “Groundwater Subsidence Monitoring”. In addition, in the last sentence in the second paragraph under No. 4., IPCO requests that that the monitoring be changed to “at least an annual basis” rather than of quarterly. Page 33 has been revised accordingly.

**Department Response #12:**

The Department disagrees with the Permittee’s recommendation that the subject matter identified on page 33, number 4, needs clarification. The ground surface is assessed both visually and through elevation measurements to detect potential collapses associated with the groundwater pumping system at the facility. The Department has; however, added modified language at the end of paragraph two that returns the facility to annual subsidence monitoring after (8) quarters indicating no net change in elevation greater than 0.10 of one foot.

The final Part I Permit language has been changed to read: “After the groundwater potentiometric surface has stabilized, subsidence monitoring shall be performed on at least a quarterly basis and reported in the AGM/CAP Report required by Special Permit Condition VI. of this Permit. **If (8) consecutive quarters do not indicate a net change greater than 0.10 of one foot, subsidence monitoring may be performed on an annual basis thereafter.**”

**Draft Permit Language, page 34, first sentence. "...confirmed, measurement of that permanent marker will continue for a period of two weeks to evaluate whether there is further movement."**

**IPCO Comment #13:**

For clarification, the first sentence on page 34 has been revised as follows: "...confirmed, measurement of that permanent marker will be conducted after two weeks to evaluate whether there is further movement."

**Department Response #13:**

The Department agrees that clarification in this sentence is needed; however, this clarification needs to be consistent with the draft Part I Permit's following paragraph language, describing the two week period of evaluation as daily monitoring.

The final Part I Permit language has been changed to read, "...confirmed, measurement of that permanent marker will continue **daily** for a period of two weeks to evaluate whether there is further movement."

**Draft Permit page 38 Language, Condition V., Surface Water Monitoring.**

**IPCO Comment #14:**

Currently, the surface water monitoring program is conducted in accordance with the facility's Missouri State Operating Permit (MO-0111325), dated June 16, 2010. IPCO recommends that Condition V. (page 38) of the draft permit be revised to state that surface water monitoring requirements in 10 CSR 25-7.264(2)(F)4 will be satisfied by maintaining compliance with the facility's State Operating Permit (MO-0111325), as administered by the Department's Water Pollution Control Program. Page 38 has been revised accordingly.

**Department Response #14:**

The Department agrees with the Permittee regarding this issue. The Permittee shall continue to submit the results of the Missouri State Operating Permit surface water monitoring program as part of the annual AGM/CAP Report.

The final Part I Permit language has been changed to incorporate the language above except that the reference to the Department's Water Pollution Control Program has been changed to the Water Protection Program.

**Draft Permit Language, page 40, D. The volume of leachate recovered from the leachate collection system sumps associated with the CAMUs and the concentration of hazardous constituents and related contaminants listed in Table 1 that were in the leachate.**

**IPCO Comment #15:**

As described in IPCO's letter to the Department dated December 5, 2012, leachate samples were collected from Tanks 5, 7A and 7B on September 21, 2012, and analyzed for Appendix IX constituents. Results of the analyses indicated no detectable

concentrations of constituents related to wood treating operations. Therefore, IPCO recommends that the leachate be sampled once every five years for site-specific constituents. Page 40, D. has been revised to reference Condition III.B.3. (see Comment 9.)

**Department Response #15:**

Please refer to the Department's response to comment #9 above regarding leachate monitoring. Again, the Department did not include a leachate sampling frequency in the draft Part I Permit and the Permittee is expected to propose an appropriate leachate sampling frequency in the revised, updated SAP required by the Final Part I Permit.

The Final Part I Permit language has been changed to read, "The volume of leachate recovered from the leachate collection system sumps associated with the CAMU; and the concentration of hazardous constituents and related contaminants listed in Table 1 that were in the leachate **during monitoring at the frequency outlined in the approved SAP.**"

**Draft Permit Language, page 40, E. Evaluation, every five years, of the availability and viability of innovative treatment technologies and their potential application to groundwater contamination with the objective of meeting the GPS MCLs listed in Table 1.**

**IPCO Comment #16:**

IPCO continuously evaluates potential innovative treatment solutions. Therefore, Condition VI.E. is not required. Condition E. on page 40 has been removed and Condition F. has been re-lettered.

**Department Response #16:**

The Department believes this type of evaluation to be an important aspect of the corrective action process, not only to shorten the time for remediation, but also to potentially create long-term savings for the Permittee due to diminished operational costs and post-closure/corrective action financial assurance obligations. The Department is removing this Permit requirement as requested by the Permittee but will be expecting discussion of the Permittee's future efforts in treatment technology evaluation as part of the annual AGM/CAP Report.

The final Part I Permit language has been changed to remove this requirement.

**Draft Permit Language, page 50, Condition V.A., last sentence: The Permittee is currently conducting additional investigations to further delineate the extent of contamination.**

**IPCO Comment #17:**

IPCO has completed RFI investigations in accordance with the Department-approved RFI Work Plans and is currently waiting for the Department to review the Supplemental RFI Report, dated August 2, 2011. Condition V.A. has been revised to reflect the current status of the RFI investigations.

**Department Response #17:**

The Permittee essentially continues to be in an Resource Conservation and Recovery Act Facility Investigation (RFI)-like investigative stage. As you know, the EPA Region 7 is requiring the Permittee to conduct additional investigation to verify the full extent of dioxin contaminated surficial soils at the facility. Until that and any other supplemental investigations are complete and the Department/EPA have reviewed and approved any related investigation reports, the RFI process will continue. The Department acknowledges/appreciates that certain RFI documents have previously been submitted by the Permittee and are awaiting Department review, comment and/or approval.

The Final Part I Permit language has not been changed from the draft Part I Permit language in response to this comment.

**Draft Permit Language, page 51, 5. The Permittee submitted a Supplemental RFI Report, dated August 2, 2011, to address the Department's comments on the original, October 6, 2008, RFI Report. The Department shall complete review and approval of this report as described in Corrective Action Condition XVI. of this Permit.**

**IPCO Comment #18:**

IPCO respectfully requests that the Department provide a time limit for their review of the 2011 RFI Report.

**Department Response #18:**

The Department appreciates and shares the Permittee's desire to keep the RFI process and related reviews moving forward as expeditiously as possible; however, we are unable as a matter of policy, competing priorities and staff turnover to specify a time limit for the Department's review in the Final Part I Permit.

The final Part I Permit language has not been changed from the draft Part I Permit language in response to this comment.

**Draft Permit Language, page 53, VI. RFI Report.**

**The Permittee submitted an RFI Report on October 6, 2008, summarizing environmental investigations and corrective measures historically completed at the International Paper facility. The Permittee is currently conducting additional investigations to further delineate the extent of contamination in accordance with an October 30, 2009, RFI Work Plan addendum. The following facility investigation documents constitute the updated RFI Report (pending Department and the EPA approval):**

- **RFI Report dated October 6, 2008.**
- **Supplemental RFI Report dated August 2, 2011.**

**The Permittee shall submit a final RFI Report to the Department and the EPA that summarizes all work completed according to the most recently approved RFI Work Plan and all information contained in previous RFI Reports.**

**IPCO Comment #19:**

IPCO has completed RFI investigations in accordance with the Department-approved RFI Work Plans and is currently waiting for the Department to review the Supplemental RFI Report, dated August 2, 2011. Condition VI. has been revised to reflect the current status of the RFI investigations.

**Department Response #19:**

Please see the Department's response to the Permittee's Comment #17.

The final Part I Permit language has not been changed from the draft Part I Permit language in response to this comment.

**Draft Permit Language, page 62, B.3. Any parcel of the permitted property proposed to be removed from the jurisdiction of this Permit shall require a legal survey for that portion of the property, execution of an environmental covenant, if needed, and such a covenant is not already in place at the time of the proposal, and successful completion of a Class 3 Permit Modification in accordance with 40 CFR 270.42, as incorporated by reference in 10 CSR 25-7.270(1) and 10 CSR 25-8.124, to remove that portion of the property from the jurisdiction of this Permit.**

**IPCO Comment #20:**

In accordance with 40 CFR 270.42, Appendix I.A.7., a change in ownership is a Class 1 permit modification with prior Director approval, not a Class 3. Three parcels of the IPCO Joplin property have been sold and in accordance with 40 CFR 270.42 the associated change in ownership notifications were considered Class 1 permit modifications with prior Director approval. Therefore, B.3., on page 62 has been revised accordingly.

**Department Response #20:**

The Department agrees that a change in ownership or operational control of all or a portion of the "***permitted property***" (emphasis added) requires a Class 1 Permit Modification with prior director approval in accordance with 40 CFR 270.42 as incorporated by reference in 10 CSR 25-7.270(1). In those situations, the new owner and/or operator typically become a Permittee. New Permittees are jointly obligated with any current owners and/or operators to comply with the Permit requirements. This type of ownership or operational control change includes several additional requirements as contained in 40 CFR 270.40 as incorporated by reference in 10 CSR 25-7.270(1) and is recognized in Corrective Action Condition XIII.B.1. This process shall be followed for transfers of all or portions of a "***permitted property***." In extremely rare cases (and with substantial prior legal review and coordination), new owners or operators may not have to become a Permittee where the property remains under the jurisdiction of the Part I Permit. However, in those rare cases, agreements are executed between the Permittee

and any new owner or operator to allow for the Permittee's continued access to perform corrective action or other required permit activities.

The requirements of the Draft Part I Permit contained in Corrective Action Condition XIII.B.3., and referred to in this comment, reflect the Department's long-standing practice of requiring a Class 3 Permit Modification for *removal of portions of a permitted property from the jurisdiction of the Part I Permit*. This practice is generally referred to as "parceling." Whenever all or part of a permitted or interim status Resource Conservation and Recovery Act Treatment, Storage, and Disposal facility is removed from the Department's regulatory jurisdiction, that proposed action is subject to public review and comment and any public comments are responded to before the Department makes a final disposition decision concerning that portion of the property. This has been a standard requirement/practice for this type of action for several years and has been implemented at several other facilities during that time. The Department recognizes that International Paper Company's (IPCO) prior disposition of portions of the Joplin, Missouri, facility, for whatever reason, was not historically held to this standard. The inclusion of the Class 3 modification procedure for "parceling" activities is to clarify the Department's expectations and requirements in the "parceling" of the permitted property and to correct historical shortcomings in the removal of property from the permit jurisdiction.

The final Part I Permit language has not been changed from the draft Part I Permit language in response to this comment.

**Draft Permit Language, page 66, XV.A.1.a. The post-closure care and corrective action cost estimate shall account for the total cost of all work activities that are expected to continue until such time as final clean-up objectives are met and confirmed. This includes any long-term costs such as final remedy operation, maintenance, monitoring; utility costs including electricity, water and sewer, decommissioning of remediation equipment and proper plugging/abandonment of monitoring wells, payment of real estate taxes on the property, and Departmental oversight cost reimbursement.**

**IPCO Comment #21:**

Post-closure care costs generally do not include utilities such as electricity, water and sewer; decommissioning of remediation equipment, payment of real estate taxes on the property; or Departmental oversight cost reimbursement. In a letter dated November 22, 2011, the Department requested that the post-closure care estimate be updated to include the following:

- Engineer certification costs and a ten-percent contingency cost for the entire estimate.
- Landfarms 5 and 7:
  - Inspection of the caps, drainage, side slopes, and associated personnel costs.
  - Repair of the cap, material costs, and associated personnel costs.
  - Leachate collection system inspection, repair, equipment, and associated personnel costs.

- Leachate disposal by a third party for the expected life of the Landfarms.
- Report drafting and certification costs.
- Subsidence monitoring, surveys, and associated personnel and reporting costs.
- Site security:
  - Fence inspection, repair, materials, signage, and associated personnel and reporting costs.
- Mowing and general maintenance/upkeep of the contiguous property.
- Groundwater monitoring network:
  - Surface and subsurface inspections of the monitoring wells.
  - Estimated number and costs associated with general monitoring well repair and replacement.
  - Sampling equipment, personnel, and mobilization costs.
  - Sampling analysis, packaging, and shipping costs.
  - Reporting, certification, and training/safety costs.
  - Personnel time related costs.
- Surface water monitoring:
  - Inspection and maintenance of the surface water monitoring points, erosion control, signage repair, and replacement.
  - Sampling equipment, personnel, and mobilization costs.
  - Sampling analysis, packaging, and shipping costs.
  - Reporting, certification, and training/safety costs.
  - Personnel time-related costs.
- Groundwater treatment system:
  - Surface and subsurface inspections of the extraction wells.
  - Estimated number and costs associated with general extraction well and pump repair and replacement.
  - Sampling equipment, personnel, and mobilization costs.
  - Sampling analysis, packaging, and shipping costs.
  - Reporting, certification, and training/safety costs.
  - Bag, sand and carbon filter replacement and repair, associated personnel costs, disposal costs, and inspection and maintenance of the treatment system.
  - Non-Aqueous Phase Liquid collection, monitoring and disposal costs.
  - Personnel time-related costs for operation, maintenance, and reporting.

IPCO agrees with the Department's 2011 letter that an estimate based on the above list is appropriate. Condition XV.A.1.a. has been revised accordingly.

**Department Response #21:**

The foregoing comment contains a relatively comprehensive list of ongoing operational costs, however, many administrative and facility close-out costs are missing. The

Department has had substantial experience over the past several years in filing bankruptcy claims at post-closure and corrective action facilities. During this claims process, the Department's analysis of the costs associated with utilities such as electricity, water and sewer, decommissioning of remediation equipment, payment of real estate taxes on the property, and Departmental oversight cost reimbursement have proven to be substantial and were included in the bankruptcy claims. The regulations and permit require cost estimates to be based on the costs to the owner or operator of hiring of a third party to conduct the post-closure care and corrective action activities required by the permit. Should a facility become insolvent, the Department would be responsible for taking control of the financial assurance funds and hiring a third party to conduct continued operations until such time as post-closure care and corrective action are complete and the facility is closed out. The Department's third party cost is expected to be substantially the same as the cost that the owner or operator would incur.

The long-term costs to operate and decommission remediation systems and wells, and ensure that the property does not wind up on the auction block for back taxes in the event of facility insolvency, would necessarily include utilities such as electricity, water and sewer, decommissioning of remediation equipment, payment of real estate taxes on the property and Departmental oversight cost reimbursement as allowed by state law and regulation. If these costs are already factored into the operational items listed above, IPCO should provide a further breakdown of these costs to identify those items that are already addressed as part of the updated cost estimate required by the permit. If these costs are not already included, a revised cost estimate should be prepared in accordance with the applicable requirements to include these items and any appropriate contingencies to account for uncertainty.

The final Part I Permit language has not been changed from the draft Part I Permit language in response to this comment.

**Draft Permit Language, page 68, first paragraph, last sentence.**

**IPCO Comment #22:**

To be consistent with Condition XV.B.g.2., IPCO recommends that the cost estimate be due within 90 calendar days of the end of the provider's fiscal year. Page 68 has been revised accordingly.

**Department Response #22:**

It appears that IPCO is actually referring to XV.B.11.g.(2) in its comment. The annual cost estimate adjustment for inflation requirement of XV.A.2.a., that is rooted in 40 CFR 264.144(b), as incorporated by reference in 10 CSR 25-7.264(1), is separate and distinct from the requirements of XV.B.11.g.(2), which has to do with the IPCO's submission of annual corporate financial reports and statements. These two deliverables are not linked under the Part I Permit and so are not inconsistent with one another.

The final Part I Permit language has not been changed from the draft Part I Permit language in response to this comment.

**Draft Permit Language, page 83, XVII. Document and Activity Extension Requests.**

**IPCO Comment #23:**

IPCO recommends that an extension request be required at least seven calendar days before the scheduled due date of the documents or activity. Condition XVII. has been revised accordingly.

**Department Response #23:**

The 15 calendar day time frame for submission of extension requests contained in the draft Part I Permit was intended to ensure that the Department has ample time to approve the request prior to the expiration of the original submission deadline. This time frame allows for mailing time, internal routing of correspondence, staff being out of the office, and review/processing of the extension approval. The Department is amenable to the recommended change but encourages IPCO to submit any future extension requests as far in advance as possible, via overnight mail and/or electronically as an attachment to e-mail as soon as the request has been signed so that no permit compliance issues arise with respect to scheduled deadlines and the Department's ability to process requested extensions in a timely manner.

The final Part I Permit language has been changed to incorporate a 7 calendar day time frame for extension requests in lieu of the 15 days specified in the draft Part I Permit.

**Draft Permit Language, page 84, Table 3. Planned Submittal Requirements Pursuant to this Permit and Schedule of Compliance.**

**IPCO Comment #24:**

IPCO recommends that the reference to a Groundwater Monitoring Plan (GMP) be removed from Table 3 because the GMP is not referenced in any other location within the draft permit and because it is not necessary since the SAP will include groundwater monitoring. In addition, IPCO recommends that the term "Revised CAMU Post-Closure Plan" be revised to "Revised Post-Closure Care Plan" because the Plan is referenced as the Post-Closure Care Plan in other locations within the draft permit and in the Part B Permit Application dated March 2004.

**Department Response #24:**

The "GMP" reference was mistakenly included in the Draft Part I Permit and has been removed. The final Part I Permit language has been changed to address the above comment.

**Draft Permit Language, page 85, Table 3. Planned Submittal Requirements Pursuant to this Permit and Schedule of Compliance.**

**IPCO Comment #25:**

The updated SAP to be submitted in accordance with Schedule of Compliance Item I.F. (see page 84) will not include those wells scheduled for abandonment. Therefore, it will not be necessary to revise the SAP after the wells are abandoned.

In addition, it is unclear what Quarterly Reports the draft permit is referring to in Table 3; therefore, the Quarterly Reports were removed from Table 3.

**Department Response #25:**

The Department agrees that the wells to be abandoned need not be referenced in the updated SAP; however, the Permittee will be installing new monitoring wells as part of the Schedule of Compliance that will need to be included in an updated SAP. The well abandonment/installation reports will also need to be submitted in the required time frame of one year.

The final Part I Permit language has been changed to read, “Submit Well Abandonment and Installation Report and Updated SAP.”

The Quarterly Reports being referred to are the quarterly hazardous waste generator reports that are required to be submitted pursuant to the referenced regulations to document the generation/shipment of hazardous waste from the facility (e.g., spent carbon, NAPL, etc.).

The Department has not changed the final Part I Permit language from the draft Part I Permit language in response to this comment.