



Greenfield Environmental Multistate Trust, LLC  
Trustee of the Multistate Environmental Response Trust  
Greenfield Environmental Trust Group, Inc., Member

# **Application for Other Site Funding and/or Reimbursement**

## **Green Mountain Group Freemont and Sweetwater County, Wyoming (Nos. 2403 and 2413)**

**Date: June 15, 2018**



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*Multistate Trust Use Only:*

Other Site Applicant: \_\_\_\_\_  
Other Site: \_\_\_\_\_  
CNTS Granted: \_\_\_\_\_  
Funds Requested \_\_\_\_\_  
Funds Approved \_\_\_\_\_

*Multistate Trust Use Only:*

Date Notice Received: \_\_\_\_\_  
Date Application Received: \_\_\_\_\_

## **Application for Other Site Funding and/or Reimbursement (the “Application”)<sup>1</sup>**

### **I. Background Information**

#### **A. Other Site Applicant (United States, State<sup>2</sup> or Multistate Trust).**

United States - U.S. Environmental Protection Agency Region 8

#### **B. Name and Contact Information of Other Site Applicant Authorized Representative.**

Betsy Smidinger  
Assistant Regional Administrator  
Office of Ecosystems, Protection, and Remediation  
Environmental Protection Agency, Region 8  
1595 Wynkoop Street  
Denver, Colorado 80202  
(303) 312 6231  
[smidinger.betsy@epa.gov](mailto:smidinger.betsy@epa.gov)

Regional Point of Contact:

Andrea Madigan  
Supervisory Attorney  
US EPA Region 8  
1595 Wynkoop Street  
Denver, Colorado 80202  
(303) 312-6904  
[madigan.andrea@epa.gov](mailto:madigan.andrea@epa.gov)

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<sup>1</sup> The Multistate Trust reserves the right to vary the terms set forth in this Application with respect to one or more Applicants at any time and from time to time, provided that all such changes shall be in compliance with the Tronox Settlement Agreement (as defined herein) and treat Applicants similarly in substance. Since this Application is being supplied and/or is available from the Multistate Trust in Microsoft Word form, Applicants may expand or delete the lined spaces provided for their responses, or include a continuation sheet, as may be required. Please do not delete or modify any other part of this Application. If an Applicant would like the Multistate Trust to refer to a continuation sheet, please note “See Continuation Sheet” in the lined space and attach a separate page or pages behind Attachment 9 (“Supplemental Information”) to this Application that clearly reference(s) the Section, Subsection and question being addressed.

<sup>2</sup> If your State signed the Tronox Settlement Agreement in the capacity of a specific State agency, please list that agency. For example, according to footnote 2 of the Tronox Settlement Agreement, “All references to ‘Georgia’ or the ‘State of Georgia’ are limited to the Georgia Department of Natural Resources, Environmental Protection Division.” Therefore, if the State of Georgia is completing this Application, it should state: Georgia Department of Natural Resources, Environmental Protection Division.

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C. Other Site Identification/Name.<sup>3</sup>

Green Mountain Group, Fremont and Sweetwater Counties, Wyoming (single-site approach). This includes the following two Other Sites identified on Attachment B of the Tronox Settlement Agreement: (1) Green Mt. Sec. 7 (No. 2413); and (2) Crooks Gap (No. 2403).

D. Other Site Description [location, approximate size, past/present uses, chain of title, operators, etc.].

Several mining districts are located along the Green Mountains. The individual mountain peaks situated in the Green Mountains (from west to east) are Crooks Mountain, Crooks Peak, Sheep Mountain, Green Mountain, and Whiskey Peak. The western slopes of the Green Mountains are known as the Crooks Gap Mining District (Crooks Gap), which was a prominent mining district in the Green Mountains area from 1954 to 1989. Uranium ore reserves (in situ and mined) were reportedly on the order of 10,000 tons, of which some 8,000 tons were produced by 17 underground mines and open-pit operations.

The Green Mountain site is located in the northern half of Township 27 North, Range 91 West. A prominent escarpment forms to the south side of Green Mountain and at its base is Crooks Creek. Crooks Creek is a small spring-fed stream in its upper reaches, and flows westward along the base of Green Mountain and then northward through Crooks Gap. After leaving Crooks Gap, the stream is said to be intermittent and is lost in sand before joining the Sweetwater River to the north.

Kerr-McGee held a 50% ownership interest in a uranium ore reserve in the Green Mountain area. Records indicate that exploration of this area took place in the late 1960s and early 1970s. Once uranium was identified, Kerr-McGee reported that the company added substantial reserves through concentrated development drilling in Wyoming and New Mexico—including the Green Mountain area.

According to the Bureau of Land Management's LR2000 unpatented mining claim database, Kerr-McGee has held over 500 unpatented mining claims in Township 27 and 28 North, Ranges 90, 91, and 92 West of the 6th Principal Meridian with the name "Green Mountain." The majority of these claims were "closed" by BLM in 1989 or 1990.

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<sup>3</sup> Except with respect to a single site approach (as described in Section I.J), a separate Application must be submitted for *each* Other Site for which funds and/or reimbursements are being requested. The Other Site should be identified exactly as it is identified on Attachment A-3 or Attachment B of the Tronox Settlement Agreement. In addition, please provide any other readily available identifying information about the Other Site, such as street address, tax assessor's number and map and Google Earth coordinates, to assist the Multistate Trust with identifying and locating the Other Site.

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- E. Lead Agency Overseeing Environmental Actions and Supporting Request [to be filled out if Multistate Trustee is the Applicant].

Not Applicable.

- F. Key Statutory Provisions or Regulatory Documents, if any, Governing Other Site Environmental Actions [attach an electronic copy of each provision or document, if available, as part of the Section II.A and II.B submission below].

Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 *et. seq.*  
See Section II.A and Section II.B for more detailed information.

- G. Sources of Contamination and Constituents of Concern, if known.

Uranium deposits occur in a variety of geologic settings and depending on the type of deposit, the mine might involve shallow pits, deep underground cavities, or large open-pit operations. Whatever the size or type, uranium mines pose ecological and human health risks, including those that can result from radiation exposure, surface and groundwater contamination, and soil contamination. The contaminants of concern at uranium mine sites commonly include radionuclides such as polonium, radium, and thorium, and can also include metals such as arsenic, lead, cadmium, manganese, and iron.

H. Mining Site. Is the Other Site a uranium mine or uranium mining exploration site [place an “x” in the applicable box]?  yes /  no. Please note that a Navajo Area Uranium Mine, as defined by Subparagraph 117(p) of the Tronox Consent Decree and Environmental Settlement Agreement (the “Tronox Settlement Agreement”) is not eligible for funding or reimbursement from the Other Sites Account. If the Applicant is not EPA Region 9, the Applicant should explain in **Attachment 1 (“I.H—Not a Navajo Area Uranium Mine”)** to this Application whether the Applicant has consulted EPA Region 9 regarding whether the mine or exploration site is a Navajo Area Uranium Mine and, if so, the Applicant should describe EPA Region 9’s response.

I. Environmental Actions. Subparagraph 126(b) of the Tronox Settlement Agreement requires Applicants to certify that the funding requested will only be used for Environmental Actions<sup>4</sup> with respect to the Other Site that is the subject of this Application, and not for a different

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<sup>4</sup> Funds from the Other Sites Account can only be paid for or reimburse *Environmental Actions*, and Subparagraph 126(b) of the Tronox Settlement Agreement requires Applicants to certify to the same. In relevant part, the Tronox Settlement Agreement defines “Environmental Actions” as “any and all environmental activities authorized or required under Environmental Laws . . . , including but not limited to response or remedial actions, removal actions, corrective action, closure, or post-closure care, reclamation, investigations, studies, remediation, interim actions, final actions, emergency actions, water treatment, implementation of engineered structures and controls, monitoring, repair and replacement of engineered structures, monitoring equipment and controls, operation and maintenance, implementation, operation and maintenance of institutional controls, coordination and integration of reuse and remedial efforts and initiatives (including, without limitation, multi-stakeholder communications), and, if required,

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Other Site, even if the alternate Other Site is one for which the United States or a State has provided a covenant not to sue or release pursuant to Paragraphs 136 or 137 of the Tronox Settlement Agreement.

J. Single Site Approach. Where Applicants are seeking funds for Environmental Actions at multiple Other Sites where, because of their proximity to each other or likely shared fate and transport connections, the Other Sites can reasonably be inferred to be part of the same “site,”<sup>5</sup> they may choose to apply for such funds on a single site approach basis in a single Application. If an Applicant elects to take this single site approach, it must explain in **Attachment 2 (“I.J—Single Site Approach”)** why the sites in question warrant single site treatment. The category of sites to which funds are requested will be treated as a single site for all purposes, except that the following portions of this Application must be addressed specifically for each site included in the approach and will be considered individually by the Multistate Trust: Sections I.C, I.D, I.G, I.H (and Attachment 1), and I.K (and Attachment 3).

K. Debtors’ Allocable Share. Subparagraph 126(b) of the Tronox Settlement Agreement requires Applicants to certify that the total amount being requested does not exceed the “Debtors’ allocable share” of the Environmental Action costs at the Other Site.<sup>6</sup> The relevant certification required by the Tronox Settlement Agreement appears in Section IV. Pursuant to the Tronox Settlement Agreement, the Multistate Trust must make a “determination that the [Applicants’] certifications are accurate” before distributing Other Sites funds. In making this determination, the Multistate Trust will assume that the Applicant has conducted a reasonable review of available information to determine the Debtors’ allocable share, and will defer to the Applicant’s analysis in the absence of a reason to question that analysis.

In determining the Debtors’ allocable share, the Applicant should develop supplemental information from available internal and external sources (such as property records and regulatory files). Although the factors relevant to an allocation will vary based on the circumstances of a particular site, the Applicant should consider some or all of the following factors in its determination of the Debtors’ allocable share:

- Are there other potentially responsible parties for the Other Site?
- For how many years did operations occur at the Other Site?
- How many years did the Debtors own and/or operate the Other Site?
- What are the constituents of concern that were generated and/or potentially released during Other Site operations?

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long-term stewardship and perpetual custodial care activities. ‘Environmental Actions’ also include the above environmental activities relating to the migration of hazardous substances emanating from the [Other Site]. For the avoidance of doubt, ‘Environmental Actions’ shall not include natural resource assessment or restoration.”

<sup>5</sup> By way of example only, Other Sites Nos. 1649 (Other Sites: AG-Chem Sites—Land) and 1650 (Other Sites: AG-Chem Sites—Warehouse) are both located in Jamesburg, NJ. Depending on the facts, it may or may not be appropriate to combine a request for Other Sites funding for these two Other Sites into a single Application.

<sup>6</sup> The Tronox Settlement Agreement provides that the Debtors in these Chapter 11 cases include: Tronox Luxembourg S.ar.L; Tronox Incorporated; Cimarron Corporation; Southwestern Refining Company, Inc.; Transworld Drilling Company; Triangle Refineries, Inc.; Triple S, Inc.; Triple S Environmental Management Corporation; Triple S Minerals Resources Corporation; Triple S Refining Corporation; Tronox LLC; Tronox Finance Corp.; Tronox Holdings, Inc.; Tronox Pigments (Savannah) Inc.; and Tronox Worldwide LLC.

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- Which of the constituents, if any, are associated with the Debtors' ownership and/or operations?
- What volumes of waste are associated with the Debtors' ownership of, and/or operations at, the Other Site?
- Would the Debtors be eligible for a *de minimis* settlement with respect to the Other Site?
- Has a "waste-in" list or volumetric ranking of potentially responsible parties been developed, or could such list and ranking be developed?
- What might comprise a fair pro rata division among viable potentially responsible parties for the Other Site?
- If relevant to the known facts, and if the information is readily available, how might the so-called "Gore factors"<sup>7</sup> be applied to assist with allocating liability?

The Multistate Trust understands that technical, site history and other relevant information needed to determine the Debtors' allocable share may not be readily available and that Tronox may not have provided the Multistate Trust or the Applicants with meaningful information about the Other Sites. In such circumstances, the Multistate Trust requests that Applicants perform, at a minimum, a basic level of due diligence and inquiry, including an internal file review, search for publicly available information regarding the site and possible site visit (if proximate to an existing Applicant office), in order to make a determination of the Debtors' allocable share for purposes of this Application.

For avoidance of doubt, if other potentially responsible parties at the site are not viable sources of recovery (because of bankruptcy, inability to pay, etc.), their allocable shares may be reduced to a level that estimates their actual ability to pay, and the allocable shares of remaining responsible parties (including the Debtors) may be increased pro rata. The Multistate Trust understands that Applicants may be required to make estimates about the viability of other responsible parties based on limited public information. In such circumstances, the Multistate Trust requests that Applicants perform a reasonable level of due diligence and inquiry in order to make an informed determination about other responsible parties' ability to pay their allocable share, and describe the efforts undertaken.

If an Applicant determines that there are other viable potentially responsible parties at the Other Site, please provide in **Attachment 3** ("I.K—Debtors' Allocable Share Analysis") to this

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<sup>7</sup> The Gore factors include the following:

- a. The ability of the parties to demonstrate that their contribution to the discharge, release, or disposal of a hazardous waste can be distinguished;
- b. The amount of hazardous waste involved;
- c. The degree of toxicity of the hazardous waste involved;
- d. The degree of involvement by the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste;
- e. The degree of care exercised by the parties with respect to the hazardous waste concerned, taking into account the characteristics of such hazardous waste; and
- f. The degree of cooperation by the parties with federal, state, or local officials to prevent any harm to the public health or the environment.

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Application the Applicant's determination of Debtors' approximate allocable share (stated as a percentage) and briefly describe the methodology the Applicant used to determine that share. If, upon investigation, the Applicant determines that there are no other viable potentially responsible parties for the Other Site, please provide in **Attachment 3** ("**I.K—Debtors' Allocable Share Analysis**") to this Application a brief description of the steps taken by the Applicant to arrive at that determination.

**II. Other Site Funding and/or Reimbursement**  
**Request Categories and Amounts**

There are four (4) different types of requests for Other Site funding and/or reimbursement that an Applicant can make in this Section II. If applicable, a single Application may be used to request funding under one or more categories for a single Other Site. *Please read this Section II in its entirety before completing the Section since it offers important guidance and considerations that may factor into the preparation of your responses.*

This Application seeks funding and/or reimbursement for the following Environmental Actions for the identified Other Site [*check all that apply*]:

***Past Costs***

- Reimbursement of costs of Environmental Actions incurred by the Applicant before the Effective Date of the Tronox Settlement Agreement (February 14, 2011).<sup>8</sup>**
- Reimbursement of costs of Environmental Actions incurred by the Applicant on or after the Effective Date of the Tronox Settlement Agreement (February 14, 2011), but before the date of the Application.**

***Future Work***

- Payment for Environmental Actions to be performed by the Applicant after the date of the Application.**
- Payment for Environmental Actions to be performed by the Multistate Trust after the date of the Application.<sup>9</sup>**

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<sup>8</sup> Under Subparagraph 126(d) of the Tronox Settlement Agreement, if the amount of approved requests exceeds the money available for distribution, then the total disbursements made by the Multistate Trust for requests of past costs incurred before February 14, 2011 (the “Effective Date” of the Tronox Settlement Agreement) will be capped at 10% of the funds in the Other Sites Account. The Multistate Trust will notify Applicants of the application of the cap to reduce this category of distributions before distributing approved amounts to relevant Applicants.

<sup>9</sup> Subparagraph 126(b) of the Tronox Settlement Agreement contemplates the possibility that the United States and States may request funds for Other Sites Environmental Actions, with the Multistate Trust, instead of the Applicant, performing the Environmental Actions. The Multistate Trust would perform the Environmental Actions pursuant to, and in compliance with, the terms of the Tronox Settlement Agreement and Multistate Environmental Response Trust Agreement (the “Trust Agreement”), with the Applicant serving as the Lead Agency. If you are contemplating having the Multistate Trust perform Environmental Actions on an Other Site, please contact Marc Weinreich, Managing Principal of the Multistate Trust, at your earliest convenience to coordinate Multistate Trust activities. Marc can be reached at [othersitesaccount@g-etg.com](mailto:othersitesaccount@g-etg.com) and 617.512.8063.

A. Reimbursement of *Already Performed* Environmental Actions.

**(i) Amount Requested for Reimbursement of Costs of Already Performed Other Site Environmental Actions Incurred Prior to the Effective Date: \$0.**

**(ii) Amount Requested for Reimbursement of Costs of Already Performed Other Site Environmental Actions Incurred On or After the Effective Date but Before the Application Date: \$0.**

Please provide in **Attachment 4** (“**II.A—Reimbursement of Already Performed Environmental Actions**”) to this Application the following detailed information:

- a. The specific past Environmental Action(s) for which reimbursement is sought (attach any available planning, decision, or post-completion document(s) related to the Environmental Action(s));
- b. The objective(s) of the past Environmental Action(s), including which sources of contamination and constituents of concern were addressed;
- c. Key statutory provisions or regulatory documents, if any, governing the Environmental Action(s) (attach a copy if not readily available electronically);
- d. The approximate date(s) the past Environmental Actions were performed;
- e. The Applicant’s standard cost documentation that identifies the associated fees, costs and expenses incurred and for which reimbursement is sought, along with a narrative summary;
- f. The amount, if any, for which reimbursement is sought for oversight costs. If oversight costs are being sought, please identify and provide a copy of the statutory provision authorizing your agency to collect reimbursement of such costs;<sup>10</sup> and
- g. A brief explanation of why the amount requested does not exceed Debtors’ allocable share.<sup>11</sup>

An Application for costs associated with past Environmental Actions should be accompanied by reasonable supporting documentation, including, by way of example, invoices, receipts, bills, workplans, project schedules, statements of work, reports, cancelled checks, and/or a reconciled Superfund Cost Recovery Package Imaging and On-Line System (SCORPIOS) Report,<sup>12</sup> or an equivalent under other applicable law. To the extent it is available, such supporting

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<sup>10</sup> If no statutory authority exists authorizing the reimbursement of oversight costs or none is cited and provided, such costs will not be recoverable.

<sup>11</sup> For example, together with a brief narrative, the following formula may be used to support the explanation: Total Already Performed Environmental Action Costs for Other Site x Debtors’ Allocable Share = Amount Requested by the Applicant.

<sup>12</sup> USEPA uses an electronic financial management system known as SCORPIOS to record Superfund expenditures. SCORPIOS draws on a repository of data from the EPA financial data warehouse and is used to document both indirect and direct Superfund costs charged to site-specific Superfund accounts. Direct costs are those associated with activities performed in connection with a specific site. Indirect costs are costs for general operation and management

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documentation should be submitted in electronic form. For avoidance of doubt, submission of an EPA SCORPIOS Report will be sufficient unless, upon review of that report, the Multistate Trust requests backup documentation. All such documentation should be included as part of **Attachment 4** (“II.A—Reimbursement of Already Performed Environmental Actions”) to this Application.

B. Environmental Actions To Be Performed by the Applicant or the Multistate Trust.

(i) **Amount Requested for Environmental Actions To Be Performed By The Applicant:** \$2,757,824.00.

(ii) **Amount Requested for Environmental Actions To Be Performed By The Multistate Trust:** \$0.

*\*NOTE: Applicants should enter the amount requested in current 2018 dollars without any adjustments or as adjusted pursuant to a formal document (e.g., Feasibility Study, Record of Decision or Action Memorandum) containing cost estimates (see Sections II.B.e and III.C.(vi) below for additional details).*

Please provide in **Attachment 5** (“II.B.(i) —Environmental Actions To Be Performed By The Applicant”) or in **Attachment 6** (“II.B.(ii)—Environmental Actions To Be Performed By The Multistate Trust”) to this Application, as applicable, the following detailed information:

- a. A statement as to whether the Applicant or the Multistate Trust will perform the proposed Environmental Actions;
- b. A description of the proposed Environmental Action(s) (attach any available planning or decision documents related to the Environmental Action(s));
- c. The Environmental Action objective(s), including which sources of contamination and constituents of concern are to be addressed;
- d. Key statutory provisions or regulatory documents, if any, governing the Environmental Action(s) (attach a copy if not readily available electronically);
- e. An estimated schedule of the annual costs associated with the performance of the Environmental Action(s) to specify anticipated costs over time or, at a minimum, the projected time horizon for the completion of such Environmental Action(s) (in either case, using the Cost Projection Net Present Value Spreadsheet provided as **Attachment 7** to this Application);<sup>13</sup>

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of the Superfund program and Superfund programmatic overhead costs, and such indirect costs are allocated to particular Superfund sites by means of a methodology established by EPA Headquarters. Applicants seeking funds from the Other Sites Account for non-federal Superfund sites are encouraged to submit comparable reports, to the extent in existence and/or readily available.

<sup>13</sup> With this information (except as provided by the exception described in Section II.C.(vi)), the Multistate Trust will consistently and uniformly adjust the amount of all approved funding requests by performing a net present value analysis to account for both the “time value of money” – the principle that a dollar today is worth more than a dollar

- f. A line-item budget identifying the tasks to be performed to carry out the Environmental Action(s) and forecasted costs, along with a narrative summary, and/or standard Applicant cost estimate documentation, such as a cost estimate included in a planning or decision document (e.g., Feasibility Study, Record of Decision, or Action Memorandum);
- g. The AACE International's cost estimate designation for the amount requested for the proposed Environmental Actions, based upon the AACE International cost estimate classification system provided as **Attachment 8** to this Application;<sup>14</sup>
- h. Key assumptions underlying the proposed forecasted costs;
- i. A description of the segregated account into which disbursed Other Site funds will be deposited and the financial controls that will be used to ensure that such funds will be expended only for Environmental Actions on the Other Site, and not on any other project, cost or expense;
- j. The amount, if any, for which funding is sought for oversight costs. If oversight costs are being sought, please identify and provide a copy of the statutory provision authorizing your agency to collect funding for such costs;<sup>15</sup> and
- k. A brief explanation of why the amount requested does not exceed the Debtors' allocable share.<sup>16</sup>

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tomorrow – and the effect of inflation, and to thereby facilitate the Multistate Trust's evaluation of the costs and benefits of such amounts requested over time across all Applications. In particular, the Multistate Trust will reduce approved funding requests by applying a variable discount rate (based on the then yield on relevant U.S. Treasuries over time (i.e., the one (1)-year U.S. Treasury yield will serve as the discount rate for projected first-year cash flows, the two (2)-year U.S. Treasury yield will discount second-year cash flows, etc.)) and will increase approved funding requests by applying Congressional Budget Office inflation estimates (based on the Consumer Price Index for the relevant time periods). For approved funding requests that do not supply the year-over-year cost projections sought in the attached Cost Projection Net Present Value Spreadsheet, the Multistate Trust will use reasonable judgment in setting appropriate hypothetical cash flows for discounting purposes, including where appropriate assuming that cash flows will be the same each year over the life of the project. By way of example, in the absence of an Applicant specifying annual project expenditure estimates for a \$1 million project expected to span ten (10) years, the Multistate Trust may calculate the net present value and apply discount and inflation rate adjustments to \$100,000 of cash flows for each of the ten (10) anticipated years over the life of the project, if such an approach is reasonable in the Multistate Trust's judgment in light of the nature of the Environmental Action(s). The Multistate Trust reserves the right to modify the approach described in this footnote to the extent that the Multistate Trust deems such modification to be necessary to achieve a proper "apples to apples" comparison between requests.

<sup>14</sup> AACE International has developed guidelines for applying the general principles of estimate classification to project cost estimates. In the event that the total amount of funds requested by Applicants exceeds the total amount of funds available from the Other Sites Account, the Multistate Trust reserves the right to use this information to consistently and uniformly adjust the amount of all approved funding requests consistent with project definition maturity levels.

<sup>15</sup> If no statutory authority exists authorizing the funding of oversight costs or none is cited and provided, such costs will not be recoverable.

<sup>16</sup> For example, together with a brief narrative, the following formula may be used to support the explanation: Total Projected Environmental Action Costs to Achieve Regulatory Closure or Post-Construction Completion for Other Site x Debtors' Allocable Share = Amount Requested by the Applicant.

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To the extent available, you should also submit electronic copies of draft or final workplans, reports, studies, findings, cost estimates and any other materials and/or key regulatory documents that form the basis of the Other Site funding request.

**C. Important Information To Factor Into Applications for Other Site Funding and/or Reimbursement.**

(i) *Additional Supporting Documentation.* Pursuant to Subparagraph 126(b) of the Tronox Settlement Agreement, the Multistate Trust may request additional supporting documentation from the United States and the relevant States to make disbursement determinations. In the event that the Multistate Trust believes that an Application does not contain enough information for the Multistate Trust to make a disbursement determination, the Multistate Trust will request from the Applicant such information the Multistate Trust requires to make the determination. Any such request(s) may delay the review and funding of an Application. Accordingly, Applicants are strongly encouraged to include complete and detailed supporting documentation with this Application in the first instance. If the Multistate Trust requests additional information from an Applicant, the Applicant must provide the information within sixty (60) days, unless granted an extension of time by the Multistate Trust, at the Multistate Trust's discretion.

(ii) *Natural Resource Assessment or Restoration Costs.* The Tronox Settlement Agreement expressly provides that "Environmental Actions shall not include natural resource assessment or restoration." See definition of "Environmental Actions" in footnote 4. As a result, no portion of the funding and/or reimbursement request may include amounts attributable to natural resource assessment or restoration costs. Applicants are required to certify in Section IV that the funding and/or reimbursement request does not include such amounts.

(iii) *Environmental Actions.* Consistent with Section I.I, Applicants should request amounts only for already performed and/or to be performed Environmental Actions relating to the Other Site. Applicants are required to certify in Section IV that the amount being sought in connection with this Application is solely for such past and/or future Environmental Actions.

(iv) *Debtors' Allocable Share Adjustment.* Consistent with Section I.K, Applicants should request only amounts reflective of the Debtors' allocable share. Applicants are required to certify in Section IV that the amount being sought in connection with this Application does not exceed the Debtors' allocable share at the Other Site.

(v) *Adjustment Due to Total Amount of All Funding and/or Reimbursement Requests.* Pursuant to Subparagraph 126(d) of the Tronox Settlement Agreement, "[i]f the total amount of approved requests . . . is more than the total amount in the Other Sites Account, disbursements shall be prorated among approved requests." Accordingly, please be aware that, even if the Multistate Trust approves the full amount requested in Sections II.A and II.B, the Multistate Trust may prorate the approved amount of your request should

the total amount of all approved requests exceed the aggregate amount fully and finally disbursed by the Anadarko Litigation Trustee to the Other Sites Account. In light of this proration requirement, it is possible that the amount payable on account of an Applicant's approved request may be insufficient for the Multistate Trust or the Applicant, as applicable, to perform the proposed Environmental Actions. In the event approved requests must be prorated as described, the Multistate Trust will notify Applicants of the prorated amounts in advance of making any disbursements to determine if the Applicants still seek the full amounts set forth in their requests, or instead elect to withdraw or reduce their requests. The Multistate Trust will provide a deadline by which approved requests may be withdrawn or reduced, after which the Multistate Trust will recalculate the proration applicable to all remaining approved requests.

(vi) *Adjustments for the Time Value of Money and Inflation.* As explained in the note following the asterisk in the beginning of this Section II.B, Applicants seeking funds for Environmental Actions to be performed (by themselves or the Multistate Trust) in the future **should not adjust estimated costs**. Instead, consistent with Section II.B.e, the Multistate Trust will adjust estimated costs associated with Applications into current dollar figures by applying applicable discount rates and accounting for the effect of expected inflation to ensure that approved funding amounts are on a similar timescale.

**Exception for Cost Estimates Based on Feasibility Studies, Records of Decision, Action Memoranda, or Similar Documents.** If your cost estimate is taken from a Feasibility Study, Record of Decision, Action Memorandum, or similar formal document estimating costs, and that document already discounted future cash flows, you may (but need not) elect to have the Multistate Trust use the discounted cash flows already contained in that document, rather than backing out the nominal cash flows and having the Multistate Trust apply its own discount rate. If you select this option, please indicate on **Attachment 5** (“**II.B.(i)—Environmental Actions To Be Performed By The Applicant**”) or **Attachment 6** (“**II.B.(ii)—Environmental Actions To Be Performed By The Multistate Trust**”) that you have made this election and describe on that form the discounting method used in the analysis you are relying on. The Multistate Trust anticipates deferring to the prior use of any reasonable discounting method in a Feasibility Study or similar document that the Applicant chooses to rely on. In that case, the Multistate Trust will not perform any additional discounting or adjustment for inflation with respect to the estimates you submit.

**III. Disbursement Options for Past and Future Environmental Actions**

One of the issues not expressly addressed in the Tronox Settlement Agreement is whether the Multistate Trust should disburse funds in a manner intended to ensure that unused or surplus disbursed funds for approved Other Sites funding requests do not remain with an Applicant. In light of (a) the Tronox Settlement Agreement's requirement that Applicants certify that funds were and/or will be used only for Environmental Actions performed in connection with the Other Site for which the Application is made and (b) the general and specific Subparagraph 126(c) waterfall provisions of the Tronox Settlement Agreement that require excess funds to be distributed among other accounts and sites, and in the interest of fairness, the Multistate Trust believes it has a fiduciary obligation to all governmental beneficiaries under the Tronox Settlement Agreement to employ a disbursement mechanism that endeavors to protect against surplus or unused disbursed funds remaining with an Applicant, with the understanding that the Multistate Trust may justifiably rely on certifications made by an Applicant in the absence of reason to doubt them.

Accordingly, the Multistate Trust will disburse approved Other Sites funding and/or reimbursement requests, as the same may be adjusted or prorated as previously described, in accordance with one or more of the following disbursement structures, chosen by the Applicant:

A. Past Costs. If the Applicant is seeking reimbursement for Environmental Action costs previously incurred, the funds will be distributed to the Applicant;

B. Future Costs. If the Applicant is seeking payment for Environmental Actions to be performed in the future, it must select one of the following distribution structures:

i. Requests by the United States and States for the Multistate Trust to Fund Government Accounts for Future Environmental Actions. If the Applicant is the United States or one of the States, it may elect to have funds paid in advance to a government-maintained account for future Environmental Actions at the Other Site. In order to select this structure, the Applicant must certify pursuant to Section IV.B that: (a) it will retain such funds in a site-specific account for use only for Environmental Actions at the Other Site, (b) such account is subject to meaningful financial controls that prevent deposited funds from being expended on any matter or project other than the Other Site, and (c) it has the legal authority to return and will promptly return any surplus or unused funds remaining after completion of the Environmental Actions to the Other Sites Account.

ii. Requests by the United States and States for the Multistate Trust to Reimburse Future Environmental Actions. If the Applicant is the United States or one of the States, it may elect to fund an account maintained by the Multistate Trust from which the Multistate Trust will reimburse the future costs of Environmental Actions of the Applicant at the Other Site as they are incurred. Such funds will be deposited in a site-specific segregated account within the Multistate Trust that the Multistate Trust will treat as an Environmental Cost Account to the maximum extent authorized by the Tronox Settlement Agreement and Trust Agreement, to be used solely to reimburse the performance of Environmental Actions

at the Other Site. In order to select this structure, the Applicant and Multistate Trust must certify pursuant to Section IV.C that the Multistate Trust will promptly return any surplus or unused funds remaining after completion of the Environmental Actions at the Other Site to the Other Sites Account.

iii. Requests by the United States and States for the Multistate Trust to Perform Future Environmental Actions. If the Applicant is the United States or one of the States, it may elect to fund an account maintained by the Multistate Trust in order for the Multistate Trust to perform future Environmental Actions at the Other Site pursuant to one or more workplans and associated budgets approved or to be approved by the Applicant. The total amount of the approved request will be deposited in a site-specific segregated account within the Multistate Trust that the Multistate Trust will treat as an Environmental Cost Account to the maximum extent authorized by the Tronox Settlement Agreement and Trust Agreement, to be used solely to perform Environmental Actions at the Other Site. In order to select this structure, the Applicant and Multistate Trust must certify pursuant to Section IV.C that the Multistate Trust will promptly return any surplus or unused funds remaining after completion of the Environmental Actions at the Other Site to the Other Sites Account.

iv. Requests by the Multistate Trust. If the Applicant is the Multistate Trust, it may deposit the funds in a site-specific segregated account within the Multistate Trust that the Multistate Trust will treat as an Environmental Cost Account to the maximum extent authorized by the Tronox Settlement Agreement and Trust Agreement, to be used solely for Environmental Actions at the Other Site pursuant to one or more workplans and associated budgets approved or to be approved by (1) the environmental regulatory agency having primary oversight responsibility over the Other Site if the Other Site is located in a State that is a settling party under the Tronox Settlement Agreement or (2) the United States if the Other Site is located in a State that is not a settling party under the Tronox Settlement Agreement. In order to select this structure, the Multistate Trust must confer with the applicable Lead Agency prior to submitting an Other Sites funding request and certify pursuant to Section IV.D that the Multistate Trust will promptly return to the Other Sites Account any surplus or unused funds remaining after completion of the Environmental Actions at the Other Site for distribution in accordance with the provisions of Paragraph 126 of the Tronox Settlement Agreement.

**Please check the disbursement structure(s) that apply to this Application:**

- III.A**
- III.B.i**
- III.B.ii**
- III.B.iii**
- III.B.iv**

\*\*\*\*\*

As indicated above, all Applicants receiving Other Sites funds pursuant to distribution structure III.B.i. must maintain the funds in a site-specific segregated account designated as “Other Sites Account for the Benefit of [insert name of the Other Site],” or another designation that reasonably and clearly identifies the funds and their dedicated purpose. Applicants may, but are not required to, invest the funds contained in such segregated account in investments they deem to be safe and prudent, provided that any resulting appreciation or interest thereon shall be (i) treated as funding provided by the Multistate Trust for the Other Site, (ii) used only for Environmental Actions at the Other Site, and (iii) promptly returned to the Multistate Trust if it remains unspent after the completion of the Environmental Actions at the Other Site.

*NOTE: Surplus Funds.* As contemplated by the Tronox Settlement Agreement and the Application, after the distribution of funds by the Multistate Trust on account of approved requests, surplus funds may remain in, or be subsequently received into, the Other Sites Account. For example, funds would remain in the Other Sites Account if the total amount of approved requests (and funds distributed on account of such approved requests) is less than the amount in the Other Sites Account. In addition, under the Application, distributed funds that are ultimately not needed for Environmental Actions at the Other Sites would be returned by Applicants to the Other Sites Account.

To the extent that surplus funds are in the Other Sites Account, the Multistate Trust will distribute them as set forth in this paragraph. If less than two years have passed since the initial round of distributions of Other Sites funding to Applicants, surplus funds in the Other Sites Account will be distributed to Applicants pro rata to the extent that approved requests remain paid less than in full. If two years or more have passed since the initial round of distributions of Other Sites funding to Applicants, such surplus funds will be transferred as provided by the last sentence of Subparagraph 126(c) of the Tronox Settlement Agreement.

#### IV. Certifications

To assist the Multistate Trust with its disbursement determinations, Subparagraph 126(b) of the Tronox Settlement Agreement requires Applicants to certify in their Other Site funding and/or reimbursement requests that funds requested are solely for Environmental Actions performed in connection with the Other Site (see Section I.I) and do not exceed the Debtors' allocable share at the Other Site (see Section I.K). Subparagraph 126(b) requires the Multistate Trust to make a determination that the certifications are accurate and enables the Multistate Trust to request additional supporting documentation from the United States and the relevant States to make the disbursement determination. In establishing a determination process that takes into account the inherent challenges faced by Applicants in estimating Environmental Action future costs, particularly for long-term Environmental Actions, the Multistate Trust has balanced the need for an efficient, cost-sensitive and easily administered approach against the Multistate Trust's excess funding waterfall obligations to all governmental beneficiaries under the Tronox Settlement Agreement (including those ineligible for funding and/or reimbursement from the Other Sites Account) to ensure that Other Sites funds are used only for Environmental Actions performed in connection with the Other Site. In order for the Multistate Trust to determine that the certification is accurate with respect to surplus funds, if any, remaining with an Applicant after completion of Environmental Actions on the Other Site, it needs to know from each Applicant whether the Applicant has the authority to, and will, return surplus funds not required for Environmental Actions for the Other Site to the Other Sites Account for distribution in accordance with the Tronox Settlement Agreement. The Multistate Trust will make the accuracy determination based and in reliance on this additional information. The additional certifications included below will facilitate the determination and, where needed, support a controlled disbursement structure under Section III.B intended to minimize excess funding for Applicants unable to certify they have the legal authority to, and will, return surplus Other Sites funding.

For clarification purposes:

- The certifications appearing in Section IV.A apply to *all Applicants* and should be made by *all Applicants*;
- The additional certifications appearing in Section IV.B apply to Applicants electing distribution to a government-maintained account pursuant to distribution structure III.B.i.
- The additional certifications appearing in Section IV.C apply to Applicants requesting distribution structure III.B.ii. or III.B.iii.
- The additional certifications appearing in Section IV.D apply to the Multistate Trust when distributions are requested under structure III.B.iv.

Before proceeding, please determine which certifications in addition to those in Section IV.A are applicable to you.

**Application for Other Site Funding and/or Reimbursement**  
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A. Certifications Made by All Applicants

By submitting this Application for the Other Site identified in Section I.C, each Applicant certifies as follows:

- (i) The Applicant identified in I.A (other than the Multistate Trust) has provided a covenant not to sue or release for the Other Site identified in I.C pursuant to Paragraph 136 or 137 of the Tronox Settlement Agreement;
- (ii) The Other Site identified in I.C above is not a Navajo Area Uranium Mine;
- (iii) The amounts sought to be distributed in connection with this Application do not exceed the Debtors' allocable share at the Other Site;
- (iv) The funds requested by this Application do not include any amounts for natural resource assessment or restoration;
- (v) The Applicant will use, or authorize the use of, funds from the Other Sites Account only for Environmental Actions performed for the Other Site identified in I.C;
- (vi) To the best of the Applicant's knowledge, the Applicant's responses in this Application are true, correct, and complete; and
- (vii) The individual signing this Application is authorized to sign this Application on behalf of the Applicant and make the binding certifications stated herein.

B. Additional Certifications Made by Applicants Electing Distribution Pursuant to Distribution Structure III.B.i.

By submitting this Application for the Other Site identified in I.C, in addition to all of the certifications made in IV.A, each Applicant electing distribution pursuant to distribution structure III.B.i. additionally certifies as follows:

- (i) The Applicant will retain such funds in a site-specific account for use only for Environmental Actions at the Other Site;
- (ii) Such account is subject to meaningful financial controls that prevent deposited funds from being expended on any matter or project other than the Other Site; and
- (iii) The Applicant has the legal authority to return and will promptly return any surplus or unused funds remaining after completion of the Environmental

Actions to the Multistate Trust for distribution in accordance with the provisions of Paragraph 126 of the Tronox Settlement Agreement.

C. Additional Certifications Made by Applicants Electing Distribution Pursuant to Distribution Structure III.B.ii. or III.B.iii.

By submitting this Application for the Other Site identified in I.C, in addition to all of the certifications made in IV.A, where the Applicant elects distribution option III.B.ii. or III.B.iii., the Applicant hereby certifies as follows:

- (i) The Applicant understands that the Multistate Trust will maintain the funds received on account of the Applicant's Other Sites Application in a site-specific segregated account within the Multistate Trust that the Multistate Trust will treat as an Environmental Cost Account to the maximum extent authorized by the Tronox Settlement Agreement and Trust Agreement; and
- (ii) The Applicant understands that the Multistate Trust will promptly return any surplus or unused funds remaining after completion of the Environmental Actions from the site-specific segregated account within the Multistate Trust to the Other Sites Account for distribution in accordance with the provisions of Paragraph 126 of the Tronox Settlement Agreement.<sup>17</sup>

D. Additional Certifications Made by the Multistate Trust Electing Distribution Pursuant to Distribution Structure III.B.iv.

By submitting this Application for the Other Site identified in I.C, in addition to all of the certifications made in IV.A, where the Applicant is the Multistate Trust electing distribution option III.B.iv, the Applicant hereby certifies as follows:

- (i) The Applicant has the support of the Lead Agency to perform the Environmental Action(s) proposed in this Application.
- (ii) The Applicant will maintain the funds received on account of the Applicant's Other Sites Application in a site-specific segregated account within the Multistate Trust that the Multistate Trust will treat as an Environmental Cost Account to the maximum extent authorized by the Tronox Settlement Agreement and Trust Agreement; and
- (iii) The Applicant will promptly return any surplus or unused funds remaining after completion of the Environmental Actions from the site-specific segregated account within the Multistate Trust to the Other Sites Account

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<sup>17</sup> The Multistate Trust's acceptance of funds distributed pursuant to options III.B.ii. and III.B.iii. will constitute its certification under Subsection IV.C.

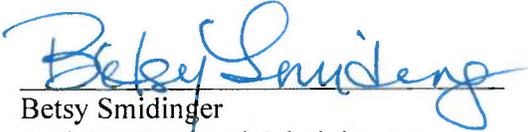
**Application for Other Site Funding and/or Reimbursement**  
**Page 21 of 37**

for distribution in accordance with the provisions of Paragraph 126 of the Tronox Settlement Agreement.

**Application for Other Site Funding and/or Reimbursement**  
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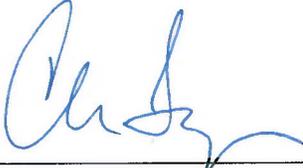
The undersigned Applicant respectfully submits this Application for Other Site funding and/or reimbursement for the Green Mountain Group of Other Sites.

FOR THE UNITED STATES



Betsy Smidinger  
Assistant Regional Administrator  
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Date: June 15, 2018



Christopher Thompson  
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Date: June 15, 2018

Attachments for Supporting Documents and Information

Attachment 1. I. H—Not a Navajo Area Uranium Mine

Attachment 2. I.J—Single Site Approach

Attachment 3. I.K—Debtors’ Allocable Share Analysis

Attachment 4. II.A—Reimbursement of Already Performed Environmental Actions

Attachment 5. II.B.(i)—Environmental Actions To Be Performed By The Applicant\*

Attachment 6. II.B.(ii)—Environmental Actions To Be Performed By The Multistate Trust\*

Attachment 7. Cost Projection Net Present Value Spreadsheet

Attachment 8. Cost Estimate Classification Information

Attachment 9. Supplemental Information

\*See also Attachment 7 (“Cost Projection Net Present Value Spreadsheet”)

<i>Multistate Trust Use Only:</i> Other Site Applicant: _____ Other Site: _____
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**ATTACHMENT 1**  
**I.H—Not a Navajo Area Uranium Mine**

Review Section I.H (“Mining Site”) of the Application and respond to the following questions, providing explanations and supporting documentation as appropriate.

1. Is the Other Site designated as a “Mining Site” in Tronox Settlement Agreement Attachment B (see the “Settlement Agreement Designation” column)?

**Yes**

*If “No,” please disregard the remaining portion of this Attachment 1.*

2. If the Other Site is designated a “Mining Site,” is the mining site under the jurisdiction of USEPA Region 9 (based on location, memorandum of understanding or otherwise)?

Yes /  No

*If “No,” please disregard the remaining portion of this Attachment 1.*

*If “Yes,” you must consult with USEPA Region 9 before proceeding further.*

3. Have you consulted with USEPA Region 9 to determine whether the mining site is a Navajo Area Uranium Mine (as defined in the Tronox Settlement Agreement)?

Yes /  No

4. Based on your consultation with USEPA Region 9, is the mining site a Navajo Area Uranium Mine?

Yes /  No

<i>Multistate Trust Use Only:</i> Other Site Applicant: _____ Other Site: _____
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**ATTACHMENT 2**

**I.J—Single Site Approach**

Please explain why the Other Sites that are the subject of this Application warrant single site treatment.

The Green Mountain sites—which include (1) Green Mt. Sec. 7 and (2) Crooks Gap—warrant single site treatment due to their proximity to one another, their shared common contaminants of concern and fate and transport connections. As previously specified, Kerr-McGee explored and developed unpatented mining claims in the Green Mountain from 1969 through the 1970s. Due to the geographic proximity of these two Other Sites, the single-site approach is appropriate for site assessment by the EPA in the Green Mountain area of Wyoming in Fremont and Sweetwater Counties.

**ATTACHMENT 3**

**I.K—Debtors’ Allocable Share Analysis**

Review Section I.K (“Debtors’ Allocable Share”) of the Application and respond to the following questions, providing explanations and supporting documentation as appropriate. Please expand the space between questions if you need additional space to complete your answer.

1. Are there other financially viable potentially responsible parties from whom costs may be recovered to pay for Environmental Actions at the Other Site?

EPA has not identified any other financially viable potentially responsible parties from whom costs may be recovered to pay for Environmental Actions at the Green Mountain group of Other Sites at this time. EPA has identified several former owners and operators that may merit further investigation. EPA is applying for funds to perform a limited Environmental Action at the Green Mountain group of Other Sites (i.e. site assessment and response to abate immediate risk), not including EPA indirect costs. In the event that financially viable PRPs are identified in the future, EPA will perform an allocable share analysis to fund additional Environmental Actions taking into account funding provided by the Multistate Trust on behalf of Kerr-McGee.

*If “Yes,” skip to question 3.*

2. Describe in reasonable detail the steps taken and analysis performed to determine that there are no other financially viable potentially responsible parties from whom costs may be recovered to pay for Environmental Actions at the Other Site.

EPA conducted a targeted PRP search investigation for the the Green Mountain group of Other Sites in Freemont and Sweetwater Counties, Wyoming. The investigation included the review of the following data sources:

- a. The Minerals Yearbook, a Department of Interior publication. The Minerals Yearbook summarizes data pulled from state bureau of mines reports, state geological surveys, and corporate annual reports and is a great resource for large, long-tenured mining and refining facilities.
- b. USGS Publications Warehouse. This includes many USGS publications on mining and mining districts.
- c. Google Books. This source was used to identify historical publications that mention or refer to the site. Due to copyright laws, Google Books can only provide snippets of a book/publication.
- d. WorldCat, an online catalog that all public libraries and universities use to identify their collections.

<i>Multistate Trust Use Only:</i> Other Site Applicant: _____ Other Site: _____
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- e. HathiTrust. This source involves a partnership of academic and research institutions, offering a collection of millions of titles digitized from libraries around the world and is managed at the University of Michigan. This database was used to followup on leads of historic records from the Google Books search.
  - f. The database created by the Department of Justice during the Tronox bankruptcy case and populated with records obtained during the course of the bankruptcy litigation.
  - g. Websites for Freemont and Sweetwater County, Wyoming, including property records, and Wyoming state agencies.
  - h. Websites for the Bureau of Land Management, the National Park Service, and the Colorado School of Mines and other general Internet searches.
  - i. Kerr-McGee corporate records and annual reports.
3. If there are other financially viable potentially responsible parties, please indicate the Debtors' approximate allocable share (stated as a percentage) and briefly describe the methodology and analysis used to determine that share.
- a. Debtors' Approximate Allocable Share: \_\_\_\_\_%
  - b. Description of Methodology and Analysis (see Section I.K of the Application for a list of non-exclusive factors to be used in the determination and analysis).

Not Applicable.

<i>Multistate Trust Use Only:</i> Other Site Applicant: _____ Other Site: _____
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ATTACHMENT 4

**NOT APPLICABLE**

**II.A—Reimbursement of Already Performed Environmental Actions**

Review Section II.A (“Reimbursement of *Already Performed* Environmental Actions”) of the Application and respond to the following questions, providing explanations and available supporting documentation (such as invoices, receipts and SCORPIOS reports) as appropriate. Please expand the space between questions if you need additional space to complete your answer.

1. Describe in reasonable detail the specific already performed Other Site Environmental Action(s) for which reimbursement is sought (attach any available plan, decision, or post-completion document(s) related to the Environmental Action(s)).
2. Describe the objective(s) of the Other Site Environmental Action(s), including which sources of contamination and constituents were addressed.
3. Describe the key statutory provisions or regulatory documents, if any, governing the Environmental Action(s) (attach a copy to this **Attachment 4** if not readily available electronically).
4. Provide the approximate date(s) on which the Environmental Action(s) were performed at the Other Site.
5. Provide standard cost documentation identifying fees, costs and expenses incurred and for which reimbursement is sought with respect to the Other Site, along with a narrative summary, as an attachment to this **Attachment 4**.
6. Provide the amount, if any, for which reimbursement is sought for oversight costs with respect to the Other Site. Include a copy of the statutory provision authorizing collection of such costs as an attachment to this **Attachment 4**.
7. If not provided in response to questions in **Attachment 3** (“**I.K—Debtors’ Allocable Share Analysis**”), explain why the amount requested with respect to the Other Site Environmental Action(s) does not exceed the Debtors’ allocable share.

<i>Multistate Trust Use Only:</i> Other Site Applicant: _____ Other Site: _____
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**ATTACHMENT 5**

**II.B.(i)—Environmental Actions To Be Performed By The Applicant**

Review Section II.B.(i) (relating to “Environmental Actions To Be Performed By The Applicant”) of the Application and respond to the following questions, providing explanations and supporting documentation (such as workplans, studies and regulatory documents) as appropriate. Please expand the space between questions if you need additional space to complete your answer.

1. The amount requested for Other Site Environmental Action(s) to be performed by the Applicant (in current 2018 dollars without any adjustments or the adjusted amount as set forth in a formal document, such as a Feasibility Study, Record of Decision or Action Memorandum, estimating costs): \$2,757,824.00.

2. Confirm that the Applicant will perform the proposed Other Site Environmental Action(s).

The Applicant confirms that it will be performing the Environmental Action(s).

3. Describe the proposed Other Site Environmental Action(s) and tasks to be performed (attach any available planning or decision documents related to the Environmental Action(s)).

The Site Assessment program at the EPA is responsible for investigating sites with uncontrolled releases of hazardous substances and placing those sites that pose the greatest threat to human health and the environment on the National Priorities List (NPL). Investigations begin with a minimal screening evaluation used to determine whether EPA Site Assessment activities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) are appropriate for the Site. This process is referred to a Pre-CERCLA Screening. Once the Site is identified as appropriate, it gets added to the active CERCLA site inventory and undergoes one or more site investigations.

These investigations assist EPA in making decisions about whether or not a site warrants cleanup. Sites that do not require cleanup receive a No Further Remedial Action Planned designation and are removed from the active CERCLA site inventory. Sites that require cleanup are referred to an appropriate cleanup program for additional study. These programs include the EPA’s Remedial program (for NPL sites), the EPA’s Emergency Response and Removal program, the EPA’s Resource Conservation and Recovery Act Corrective Action program, and state and tribal cleanup initiatives such as voluntary cleanup programs.

The proposed Environmental Actions to be performed at this site are as follows:

**Action 1: Pre-CERCLA Screening**

The Pre-CERCLA Screening is a relatively low-cost initial collection and review of existing information about a potential site. It helps determine whether the site should be

*Multistate Trust Use Only:*

Other Site Applicant: \_\_\_\_\_

Other Site: \_\_\_\_\_

addressed under the federal Superfund program or under another federal, state or tribal cleanup program, and whether the site should be entered into the active CERCLA site inventory for further assessment

**Task 1 Complete Pre-CERCLA Screening Checklist/Decision Form**

- Desktop review of all available Site information
- Site visit and observational reconnaissance

**Action 2: Site Investigation**

During a site investigation, the EPA obtains and analyzes environmental samples to evaluate human and environmental exposure to hazardous substances. This involves the deployment of EPA resources to plan and execute field work in accordance with standard operating procedures. While the scope of each investigation varies based on the nature and complexity of the site, in general they include the following tasks:

**Task 1 – Project Management and Planning**

- Project scoping
- Site visits and observational reconnaissance
- Review of existing information
- Preparation of site-specific operating documents such as: health and safety plans, emergency response plans, quality assurance project plans, sampling and analysis plans, investigation-derived waste plans, work plans and technical direction documents.

**Task 2 – Community Involvement**

- Coordination with other federal, state and local officials
- Public outreach and information sharing with the general public, media, community groups and elected officials

**Task 3 – Field Work**

- Collection of multi-media samples (i.e., soil, sediment, surface water, ground water, air, biota)
- Collection of in-situ field parameters (e.g., streamflow, pH, conductivity, temperature)
- Geophysical techniques to acquire subsurface data
- Radiological and metals screening surveys
- Geographical positioning systems surveys

**Task 4 – Laboratory Analysis**

- Chemical analysis of samples for radionuclides, organic and inorganic compounds, acid base accounting, metals speciation and bioavailability
- Analysis of sample leachate by Synthetic Precipitation Leaching Procedure and Toxicity Characteristics Leaching Procedure

<i>Multistate Trust Use Only:</i> Other Site Applicant: _____ Other Site: _____
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- Aquatic toxicity testing

**Task 5 – Data Management and Reporting**

- Data verification and validation
- Maintenance of a central data repository
- Development of geospatial viewers and other web-enabled data portals
- Distribution of customized data outputs for partners and the general public
- Preparation of technical reports

**Action 3: Site Cleanup**

During a removal action, actions are taken to reduce or eliminate the health and environmental risks from exposure to the hazardous substances at a site. Any number of options are available to accomplish this. These options vary greatly due to site-specific factors, but generally include some combination of the following in accordance with the National Contingency Plan:

- Excavation and off-site disposal if cost effective and protective
  - Regrading the waste material to limit erosinary migration of contaminants
  - Consolidating and capping contaminants/waste in place to prevent exposure and reduce or eliminate further contaminant migration
  - Redirecting surface drainage around contamination to reduce runoff and erosinary transportation of contaminants
4. Describe the objective(s) of the proposed Other Sites Environmental Action(s), including which sources of contamination and constituents of concern are to be addressed.

For this Site, the suspected hazardous substances are heavy metals and radionuclides resulting from past mining operations.

**Action 1: Pre-screening Site Evaluation**

Objective: To determine if the site is appropriate for assessment by EPA under authority of the Comprehensive Environmental Response, Compensation, and Liability Act.

**Action 2: Site Investigation**

Objective: To identify site-specific contaminants present, determine whether hazardous substances, pollutants, or contaminants are being released to the environment, and determine whether the releases have or may impact specific human health or environmental targets.

**Action 3: Site Cleanup**

Objective: To take measures to abate or mitigate real or potential threats to human health and the environment.

<p><i>Multistate Trust Use Only:</i></p> <p>Other Site Applicant: _____</p> <p>Other Site: _____</p>
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5. Describe the key statutory provisions or regulatory documents, if any, governing the Environmental Action(s) (attach a copy to this **Attachment 5** if not readily available electronically).

The Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 *et. seq.*, (CERCLA), provides EPA with broad authority to respond to a release or threat of release of a hazardous substance, pollutant, or contaminant. Section 104 of CERCLA authorizes investigations, removal and remedial actions, and any other response measures that are necessary to protect the public health or welfare or the environment. The National Contingency Plan (40 CFR Part 300) provides EPA with the guidelines and procedures to conduct CERCLA response actions, including both investigation and cleanup.

6. Unless the Applicant is requesting an amount previously adjusted pursuant to a formal document estimating costs and is electing to have the Multistate Trust use the previously adjusted amount (rather than perform its own adjustments to the requested amount) for disbursement determination purposes (see question 7), use and complete **Attachment 7** (“**Cost Projection Net Present Value Spreadsheet**”) to provide either:
- a. An estimated schedule of the annual costs associated with the performance of the Environmental Action(s); or
  - b. At a minimum, the projected time horizon for the completion of the Environmental Action(s).
7. If the Applicant is requesting an amount previously adjusted pursuant to a formal document (e.g., Feasibility Study, Record of Decision or Action Memorandum) estimating costs and is electing to have the Multistate Trust use the previously adjusted amount (rather than perform its own adjustments to the requested amount) for disbursement determination purposes, indicate such election in the space below and describe the methodology and analysis used to calculate the requested amount.
8. Provide a line-item budget identifying tasks to be performed to carry out the Environmental Action(s) and forecasted costs, along with a narrative summary, and/or standard Applicant cost estimate documentation, such as a cost estimate included in a planning or decision document (e.g., Feasibility Study, Record of Decision or Action Memorandum). The budget should be included as an attachment to this **Attachment 5**.

See attached budget spreadsheet. Narrative summary provided in response to Question 3.

9. Based on ACE International’s cost estimate classification system provided as **Attachment 8** (“**Cost Estimate Classification Information**”) to this Application, please circle one (1) of the following five (5) estimate classes that, in your opinion, best describes the maturity level of project definition for the proposed Other Site Environmental Action(s):

<i>Multistate Trust Use Only:</i> Other Site Applicant: _____ Other Site: _____
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- a. Class 1 (-10/+15%);
- b. Class 2 (-15/+20%);
- c. Class 3 (-20/+30%);
- d. Class 4 (-30/+50%); or
- e. Class 5 (-50/+100%).

10. Describe key assumptions underlying the proposed forecasted costs.

The proposed Environmental Actions are sequential in nature, with the need for each Action being dependent on the outcome of the previous one. Conditions at this Site are largely unknown; therefore, it is assumed that all of the proposed Environmental Actions may be necessary.

Costs estimates are not based on known site conditions, but rather the average actual cost needed to conduct these Environmental Actions at three previously completed mining sites in Region 8. Actual costs may vary depending on site conditions.

11. Identify and describe the segregated account into which disbursed Other Site funds will be deposited and the financial controls that will be used to ensure that such funds will be expended only for Environmental Action(s) on the Other Site, and not on any other project, cost or expense.

CERCLA Section 122(b)(3) authorizes EPA to retain settlement funds for the purposes of carrying out the agreement. EPA retains funds collected pursuant to CERCLA Section 122(b)(3) in site-specific special accounts. Special accounts may only be used for CERCLA response actions in the manner specified in the settlement agreement under which funds are received. The Other Sites funds will be deposited in the “Lisbon Group Tronox Other Site” special account and subject to the limitations in the Tronox Bankruptcy Settlement and the Multistate Trust Agreement limitations on use of Other Sites funding. Accordingly, the funds will only be expended for Environmental Actions at this specific Other Site. Due to EPA’s budgeting and cost accounting structure in its financial management system, the only way for settlement funds to be obligated or disbursed from a site-specific special account is for the appropriate Superfund Site Identification Code (SSID) to be entered for the financial transaction. As a result, funds in a site-specific special account cannot be obligated or disbursed for a different site, as each site has a unique SSID.

12. If not provided in response to questions in **Attachment 3 (“I.K—Debtors’ Allocable Share Analysis”)**, explain why the amount requested with respect to the Other Site Environmental Action(s) does not exceed the Debtors’ allocable share.

See Attachment 3.

**Application for Other Site Funding and/or Reimbursement**  
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13. Provide the amount, if any, for which funding is sought for oversight costs with respect to the Other Site. Include a copy of the statutory provision authorizing collection of such costs as an attachment to this **Attachment 5**.

No oversight funding is requested.

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ATTACHMENT 6

**NOT APPLICABLE**

**II.B.(ii)—Environmental Actions To Be Performed By The Multistate Trust**

Review Section II.B.(ii) (relating to “Environmental Actions To Be Performed By The Multistate Trust”) of the Application and respond to the following questions, providing explanations and supporting documentation (such as workplans, studies and regulatory documents) as appropriate. Please expand the space between questions if you need additional space to complete your answer.

1. The amount requested for Other Site Environmental Actions to be performed by the Multistate Trust (in current 2018 dollars without any adjustments or the adjusted amount as set forth in a formal document, such as a Feasibility Study, Record of Decision or Action Memorandum, estimating costs): \$ \_\_\_\_\_.

2. Confirm that the Multistate Trust will perform the proposed Environmental Action(s).

The Applicant confirms that the Multistate Trust [*delete one*] will/will not be performing the Environmental Action(s).

3. Describe the proposed Other Site Environmental Action(s) to be performed (attach any available planning or decision documents related to the Environmental Action(s)).
4. Describe the objective(s) of the proposed Other Site Environmental Action(s), including which sources of contamination and constituents of concern are to be addressed.
5. Describe the key statutory provisions or regulatory documents, if any, governing the Environmental Action(s) (attach a copy to this **Attachment 6** if not readily available electronically).
6. Unless the Applicant is requesting an amount previously adjusted pursuant to a formal document estimating costs and is electing to use the previously adjusted amount (rather than perform its own adjustments to the requested amount) for disbursement determination purposes (see question 7), use and complete **Attachment 7** (“**Cost Projection Net Present Value Spreadsheet**”) to provide either:
  - a. An estimated schedule of the annual costs associated with the performance of the Environmental Action(s); or
  - b. At a minimum, the projected time horizon for the completion of such Environmental Action(s).

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Other Site: \_\_\_\_\_

7. If the Applicant is requesting an amount previously adjusted pursuant to a formal document (e.g., Feasibility Study, Record of Decision or Action Memorandum) estimating costs and elects to use the previously adjusted amount (rather than perform its own adjustments to the requested amount) for disbursement determination purposes, indicate such election in the space below and describe the methodology and analysis used to calculate the requested amount.
  
8. Provide a line-item budget identifying tasks to be performed to carry out the Environmental Action(s) and forecasted costs, along with a narrative summary, and/or standard Applicant cost estimate documentation, such as a cost estimate included in a planning or decision document (e.g., Feasibility Study, Record of Decision or Action Memorandum). The budget should be included as an attachment to this **Attachment 6**.
  
9. Based on AACE International's cost estimate classification system provided as **Attachment 8** ("**Cost Estimate Classification Information**") to this Application, please circle one (1) of the following five (5) estimate classes that, in your opinion, best describes the maturity level of project definition for the proposed Other Site Environmental Actions(s):
  - a. Class 1 (-10/+15%);
  - b. Class 2 (-15/+20%);
  - c. Class 3 (-20/+30%);
  - d. Class 4 (-30/+50%); or
  - e. Class 5 (-50/+100%).
  
10. Describe key assumptions underlying the proposed forecasted costs.
  
11. If not provided in response to questions in **Attachment 3** ("**I.K—Debtors' Allocable Share Analysis**"), explain why the amount requested with respect to the Other Site Environmental Action(s) does not exceed the Debtors' allocable share.
  
12. Provide the amount, if any, for which funding is sought for oversight costs with respect to the Other Site. Include a copy of the statutory provision authorizing collection of such costs as an attachment to this **Attachment 6**.

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**ATTACHMENT 7**

**Cost Projection Net Present Value Spreadsheet**

[Attached Separately as a Microsoft Excel File]

Multistate Trust Use Only:  
Other Site Applicant: \_\_\_\_\_  
Other Site: \_\_\_\_\_

ATTACHMENT 8

**Cost Estimate Classification Information**

[See Table 1 for Class-Related Details]



AAACE International Recommended Practice No. 18R-97

**COST ESTIMATE CLASSIFICATION SYSTEM –  
AS APPLIED IN ENGINEERING, PROCUREMENT, AND CONSTRUCTION  
FOR THE PROCESS INDUSTRIES  
TCM Framework: 7.3 – Cost Estimating and Budgeting**

Rev. March 1, 2016

Note: As AAACE International Recommended Practices evolve over time, please refer to [www.aacei.org](http://www.aacei.org) for the latest revisions.

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*Disclaimer: The opinions expressed by the authors and contributors to this recommended practice are their own and do not necessarily reflect those of their employers, unless otherwise stated.*

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AACE<sup>®</sup> International Recommended Practice No. 18R-97

**COST ESTIMATE CLASSIFICATION SYSTEM – AS  
APPLIED IN ENGINEERING, PROCUREMENT, AND  
CONSTRUCTION FOR THE PROCESS INDUSTRIES**

TCM Framework: 7.3 – Cost Estimating and Budgeting



March 1, 2016

**PURPOSE**

As a recommended practice of AACE International, the *Cost Estimate Classification System* provides guidelines for applying the general principles of estimate classification to project cost estimates (i.e., cost estimates that are used to evaluate, approve, and/or fund projects). The *Cost Estimate Classification System* maps the phases and stages of project cost estimating together with a generic project scope definition maturity and quality matrix, which can be applied across a wide variety of process industries.

This addendum to the generic recommended practice (17R-97) provides guidelines for applying the principles of estimate classification specifically to project estimates for engineering, procurement, and construction (EPC) work for the process industries. This addendum supplements the generic recommended practice by providing:

- A section that further defines classification concepts as they apply to the process industries.
- A chart that maps the extent and maturity of estimate input information (project definition deliverables) against the class of estimate.

As with the generic recommended practice, the intent of this addendum is to improve communications among all of the stakeholders involved with preparing, evaluating, and using project cost estimates specifically for the process industries.

The overall purpose of this recommended practice is to provide the process industry with a project definition deliverable maturity matrix that is not provided in 17R-97. It also provides an approximate representation of the relationship of specific design input data and design deliverable maturity to the estimate accuracy and methodology used to produce the cost estimate. The estimate accuracy range is driven by many other variables and risks, so the maturity and quality of the scope definition available at the time of the estimate is not the sole determinate of accuracy; risk analysis is required for that purpose.

This document is intended to provide a guideline, not a standard. It is understood that each enterprise may have its own project and estimating processes and terminology, and may classify estimates in particular ways. This guideline provides a generic and generally acceptable classification system for process industries that can be used as a basis to compare against. This addendum should allow each user to better assess, define, and communicate their own processes and standards in the light of generally-accepted cost engineering practice.

**INTRODUCTION**

For the purposes of this addendum, the term “process industries” is assumed to include firms involved with the manufacturing and production of chemicals, petrochemicals, and hydrocarbon processing. The common thread among these industries (for the purpose of estimate classification) is their reliance on process flow diagrams (PFDs) and piping and instrument diagrams (P&IDs) as primary scope defining documents. These documents are key deliverables in determining the degree of project definition, and thus the extent and maturity of estimate input information.

Estimates for process facilities center on mechanical and chemical process equipment, and they have significant amounts of piping, instrumentation, and process controls involved. As such, this addendum may apply to portions of other industries, such as pharmaceutical, utility, water treatment, metallurgical, converting, and similar industries.

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This addendum specifically does not address cost estimate classification in non-process industries such as commercial building construction, environmental remediation, transportation infrastructure, hydropower, “dry” processes such as assembly and manufacturing, “soft asset” production such as software development, and similar industries. It also does not specifically address estimates for the exploration, production, or transportation of mining or hydrocarbon materials, although it may apply to some of the intermediate processing steps in these systems.

The cost estimates covered by this addendum are for engineering, procurement, and construction (EPC) work only. It does not cover estimates for the products manufactured by the process facilities, or for research and development work in support of the process industries. This guideline does not cover the significant building construction that may be a part of process plants.

This guideline reflects generally-accepted cost engineering practices. This RP was based upon the practices of a wide range of companies in the process industries from around the world, as well as published references and standards. Company and public standards were solicited and reviewed, and the practices were found to have significant commonalities. These classifications are also supported by empirical process industry research of systemic risks and their correlation with cost growth and schedule slip<sup>[8]</sup>.

**COST ESTIMATE CLASSIFICATION MATRIX FOR THE PROCESS INDUSTRIES**

A purpose of cost estimate classification is to align the estimating process with project stage-gate scope development and decision making processes.

Table 1 provides a summary of the characteristics of the five estimate classes. The maturity level of project definition is the sole determining (i.e., primary) characteristic of class. In Table 1, the maturity is roughly indicated by a percentage of complete definition; however, it is the maturity of the defining deliverables that is the determinant, not the percent. The specific deliverables, and their maturity or status are provided in Table 3. The other characteristics are secondary and are generally correlated with the maturity level of project definition deliverables, as discussed in the generic RP<sup>[2]</sup>. The post sanction classes (Class 1 and 2) are only indirectly covered where new funding is indicated. Again, the characteristics are typical and may vary depending on the circumstances.

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ESTIMATE CLASS	Primary Characteristic	Secondary Characteristic		
	MATURITY LEVEL OF PROJECT DEFINITION DELIVERABLES Expressed as % of complete definition	END USAGE Typical purpose of estimate	METHODOLOGY Typical estimating method	EXPECTED ACCURACY RANGE Typical variation in low and high ranges
<b>Class 5</b>	0% to 2%	Concept screening	Capacity factored, parametric models, judgment, or analogy	L: -20% to -50% H: +30% to +100%
<b>Class 4</b>	1% to 15%	Study or feasibility	Equipment factored or parametric models	L: -15% to -30% H: +20% to +50%
<b>Class 3</b>	10% to 40%	Budget authorization or control	Semi-detailed unit costs with assembly level line items	L: -10% to -20% H: +10% to +30%
<b>Class 2</b>	30% to 75%	Control or bid/tender	Detailed unit cost with forced detailed take-off	L: -5% to -15% H: +5% to +20%
<b>Class 1</b>	65% to 100%	Check estimate or bid/tender	Detailed unit cost with detailed take-off	L: -3% to -10% H: +3% to +15%

**Table 1 – Cost Estimate Classification Matrix for Process Industries**

This matrix and guideline outline an estimate classification system that is specific to the process industries. Refer to the generic estimate classification RP<sup>[1]</sup> for a general matrix that is non-industry specific, or to other addendums for guidelines that will provide more detailed information for application in other specific industries. These will provide additional information, particularly the project definition deliverable maturity matrix which determines the class in those particular industries.

Table 1 illustrates typical ranges of accuracy ranges that are associated with the process industries. The +/- value represents typical percentage variation of actual costs from the cost estimate after application of contingency (typically to achieve a 50% probability of project overrun versus underrun) for given scope. Depending on the technical and project deliverables (and other variables) and risks associated with each estimate, the accuracy range for any particular estimate is expected to fall into the ranges identified (although extreme risks can lead to wider ranges).

In addition to the degree of project definition, estimate accuracy is also driven by other systemic risks such as:

- Level of non-familiar technology in the project.
- Complexity of the project.
- Quality of reference cost estimating data.
- Quality of assumptions used in preparing the estimate.
- Experience and skill level of the estimator.
- Estimating techniques employed.
- Time and level of effort budgeted to prepare the estimate.
- Unique/remote nature of project locations and the lack of reference data for these locations.
- The accuracy of the composition of the input and output process streams.

Systemic risks such as these are often the primary driver of accuracy, especially during the early stages of project definition. As project definition progresses, project-specific risks (e.g. risk events) become more prevalent and also drive the accuracy range<sup>[3]</sup>. Another concern in estimates is potential pressure for a predetermined value that may

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result in a biased estimate. The goal should be to always have an unbiased and objective estimate. The stated estimate ranges are dependent on this premise and a realistic view of the project.

Failure to appropriately address systemic risks (e.g. technical complexity) during risk analysis impacts the resulting probability distribution of the estimate costs, and therefore the interpretation of estimate accuracy.

Another way to look at the variability associated with estimate accuracy ranges is shown in Figure 1. Depending upon the technical complexity of the project, the availability of appropriate cost reference information, the degree of project definition, and the inclusion of appropriate contingency determination, a typical Class 5 estimate for a process industry project may have an accuracy range as broad as -50% to +100%, or as narrow as -20% to +30%.

Figure 1 also illustrates that the estimating accuracy ranges overlap the estimate classes. There are cases where a Class 5 estimate for a particular project may be as accurate as a Class 3 estimate for a different project. For example, similar accuracy ranges may occur if the Class 5 estimate of one project that is based on a repeat project with good cost history and data and, whereas the Class 3 estimate for another is for a project involving new technology. It is for this reason that Table 1 provides ranges of accuracy range values. This allows application of the specific circumstances inherent in a project, and an industry sector, to provide realistic estimate class accuracy range percentages. While a target range may be expected of a particular estimate, the accuracy range is determined through risk analysis of the specific project and is never pre-determined. AACE has recommended practices that address contingency determination and risk analysis methods.

If contingency has been addressed appropriately, approximately 80% of projects should fall within the ranges shown in Figure 1. However, this does not preclude a specific actual project result from falling inside or outside of the bands shown in Figure 1 indicating the expected accuracy ranges.

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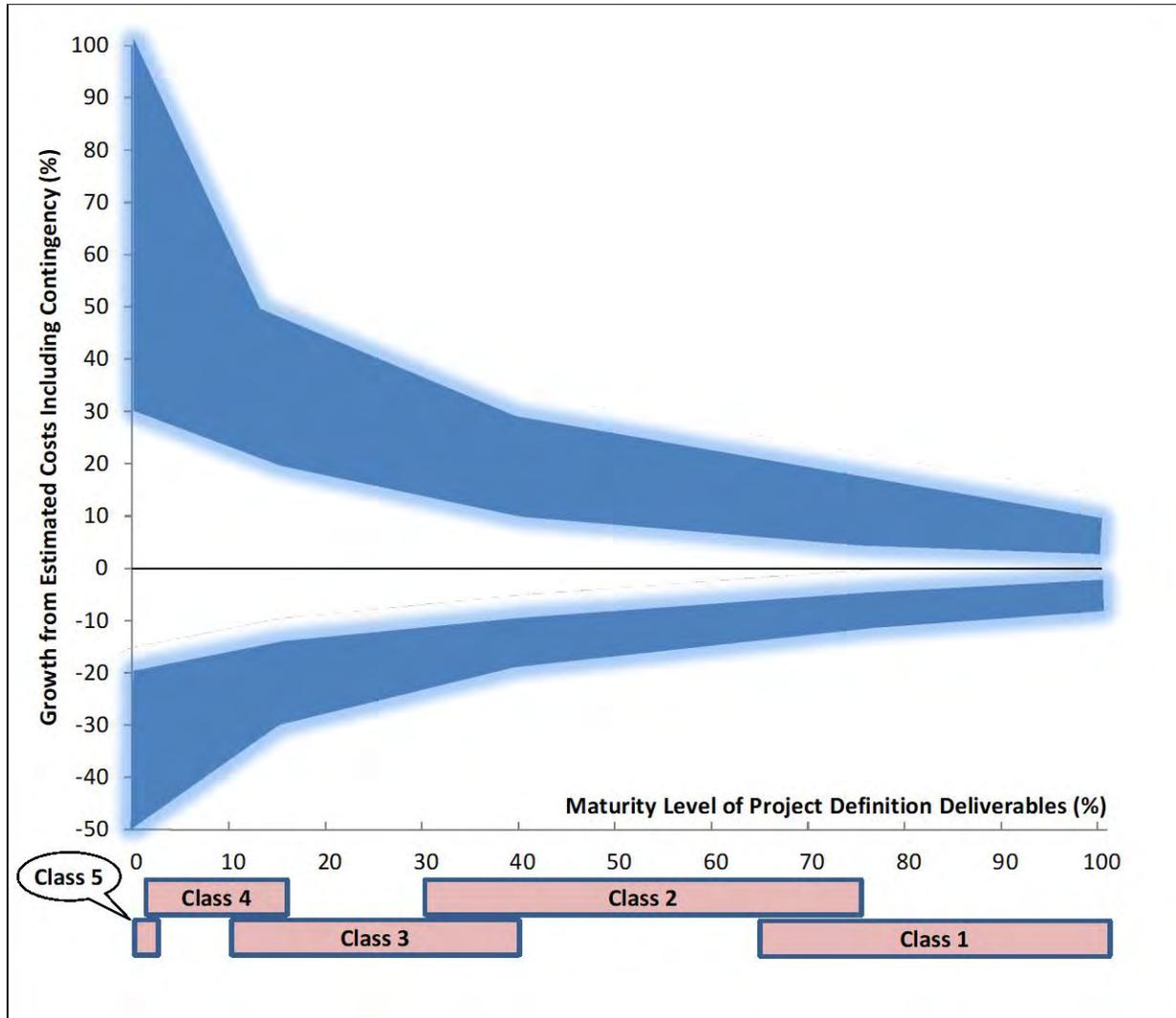


Figure 1 – Example of the Variability in Accuracy Ranges for a Process Industry Estimate

**DETERMINATION OF THE COST ESTIMATE CLASS**

The cost estimator makes the determination of the estimate class based upon the maturity level of project definition based on the status of specific key planning and design deliverables. The percent design completion may be correlated with the status, but the percentage should not be used as the estimate class determinant. While the determination of the status (and hence the estimate class) is somewhat subjective, having standards for the design input data, completeness and quality of the design deliverables will serve to make the determination more objective.

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**ATTACHMENT 9**

**Supplemental Information**

The Comprehensive Environmental Response, Compensation, and Liability Act:  
<https://www.gpo.gov/fdsys/pkg/USCODE-2016-title42/pdf/USCODE-2016-title42-chap103.pdf>

The National Oil and Hazardous Substances Pollution Contingency Plan:  
[https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr300\\_main\\_02.tpl](https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr300_main_02.tpl)