

STAPPA / ALAPCO

STATE AND TERRITORIAL
AIR POLLUTION PROGRAM
ADMINISTRATORS

ASSOCIATION OF
LOCAL AIR POLLUTION
CONTROL OFFICIALS

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S. WILLIAM BECKER
EXECUTIVE DIRECTOR

Peter Tsirigotis
Director, Emissions, Monitoring, and Analysis Division
Office of Air Quality Planning & Standards
Environmental Protection Agency
109 T. W. Alexander Drive
Research Triangle Park, NC 27711

Dear Mr. Tsirigotis,

On behalf of the Monitoring Steering Committee and the Monitoring Committee (“the Committees”) of the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO), we appreciate the opportunity to collaborate with EPA to develop air toxics monitoring policy in accord with the National Monitoring Strategy, Air Toxics Component. In June, 2005, EPA awarded sixteen cooperative agreements for local-scale monitoring for fiscal 2004 and is currently reviewing applications for fiscal 2005. This letter sets forth our opinions concerning the best use of the \$6.25 million that will be awarded under section 103 of the Clean Air Act by EPA, including suggestions concerning the criteria for EPA to use in evaluating cooperative agreement applications in accord with the Request for Application (RFA) OAR-EMAD-05-16.

At the outset, we are pleased that EPA has adopted the “BINs” approach to air toxics monitoring cooperative agreements that the Monitoring Steering Committee recommended to you in our January 25, 2005 memorandum. Earmarking amounts of the available funds for source identification and characterization, methods development, and methods evaluation and characterization—in addition to the local-scale monitoring—will lend clarity of purpose and technical utility to projects undertaken. We believe that we will best advance our understanding of air quality by determining scientifically supportable methods for sampling and analysis, evaluating innovative monitoring technologies, and identifying source “footprints.” To this end, the Committees encourage EPA to increase funding for these objectives in the future and to proportionally decrease local-scale monitoring.

Criteria for Evaluating Air Toxics Monitoring Grants

The revised and expanded Evaluation Criteria contained in EPA's FY2005 RFA are generally consistent with the criteria that the Committees believe should be utilized for cooperative agreement evaluation. EPA's criteria are:

- Four criteria that can be characterized as evaluating the quality of the application—the narrative workplan, including content and descriptive quality; the background and basis of the application insofar as it demonstrates knowledge of prior work in the field; the description of objectives; and the adequacy of the quality assurance narrative
- High priority given to HAPs, with emphasis on the recently released 1999 National Air Toxics Assessment (NATA) regional or national “drivers”
- Data Analysis
- Transferability “to other scenarios in different locations”
- Qualifications (e.g., does the applicant possess direct, relevant expertise in performing the proposed work?)
- Leveraging of other resources (e.g., measurements from PM, ozone, Photochemical Assessment Monitoring Stations [PAMS]; staff expertise; community support; and/or cooperation with concurrent studies)

In addition, the RFA states that other factors may be considered in evaluating the applications, including: 1) Capacity building “within their agency or a partner air pollution agency”; 2) Community-scale monitoring proposals for areas deemed as high risk per the 1999 NATA data; and 3) Geographic dispersion.

Although the Committees generally support these criteria, we encourage EPA to adjust the criteria in the manner set forth below:

First, high priority should be given to proposals that entail capacity building. Specifically, these cooperative agreements should be used in such a way that the state or local agency staff has a significant role in administering the funds, learning from the project, obtaining and analyzing the data, and communicating the results to the community. A project that proposes to pass through by subcontract or other arrangement a large percentage of the funds to a university or other entity outside the state or local agency should be scrutinized with particular care, and the applicant should be prepared to demonstrate the availability and capability of agency staff to closely oversee such a project. We look forward to discussing with you issues relating to this priority, including special circumstances that may arise regarding laboratory costs. In addition, we generally agree that a goal or outcome of these projects is “increased state and local Air Pollution Control Agency (APCA) ability to characterize the sources and local-scale distribution of HAPs, and assess human exposure...” (RFA OAR-EMAD-05-16, section C (2)). In order that we realize that goal, we also look forward to discussing with you the circumstances

in which entities other than APCAs should be eligible to receive these STAG funds (RFA OAR-EMAD-05-16, Amendment of July 27, 2005).

Second, in light of resource constraints, the projects funded should evidence national applicability to the greatest extent possible. We support EPA's "transferability" criterion and urge that it be given significant weight.

Third, the Committees strongly support EPA's criterion for data analysis and advocate adding to it a criterion for communication of project results. Funded proposals should include well-thought-out plans for both analyzing and communicating data results.

Fourth, we do not agree with the geographic dispersion factor. Committee members recently discussed with the STAPPA/ALAPCO Board of Directors the question of whether funds should be granted in a geographically equitable way. The Board's opinion was that only meritorious applications should be funded. Furthermore, if there are insufficient numbers of meritorious projects proposed in a given year, then the funds should remain unspent rather than granted to poorly conceived projects in order to achieve geographical distribution. Such an approach is defensible and fiscally responsible.

Fifth, the Committees recommend that agencies that have received air toxics monitoring funding under a cooperative agreement should be presumed ineligible for the next three years. A three-year presumption would best further the goal of dispersing these funds rather than concentrating them in any one agency. Supplemental amounts could, however, be awarded in appropriate situations.

Sixth, we appreciate and support EPA's need for an adequate level of planning and detail in applications, including quality assurance and work plan narratives, background and basis information, relevant resources, detailed itemized budgets, associated work products to be developed, plans for tracking and measuring progress, and explanations of transferability to other programs and scenarios. Nonetheless, we encourage EPA to think creatively about allowing smaller programs and those embarking on air toxics monitoring proposals for the first time some flexibility with regard to these requirements.

Cooperative Agreements Awarded in FY2004

Members of the Monitoring Steering Committee have reviewed the sixteen cooperative agreements awarded in June by EPA for air toxics monitoring with FY2004 funding. Several received extremely positive reactions. A few were considered to lack important elements. Most fell somewhere in the middle. Projects that the Steering Committee reviewers supported enthusiastically were: Warwick, R.I., Allegheny County, PA, Spokane, WA, and Portland, OR. Summarized below, these evaluations provide examples of the Steering Committee's critical thinking with regard to specific proposals.

Warwick, R.I. One comment was, "[a] well-designed study to assess the potential air toxics impact of an expanding airport and local industrial sources on adjacent

neighborhoods.” The project’s strengths included: use of differential optical absorption spectroscopy (DOAS) technology; possible leverage with a health study; a clearly written and well-organized proposal, with a detailed statement of basis and rationale; and agency capacity building for future work. No subcontracting was proposed by the applicant. Another reviewer termed this, “a model for the future, as it is trying to establish an air toxics footprint from a source,” although he questioned funding an agency that had previously received a pilot city grant of \$500,000. It was also noted that the study may contribute to understanding diesel PM emissions and that the information will be valuable to communities with similar sized airports. The selection of this proposal predated EPA’s acceptance of the Steering Committee’s BINS memorandum, but is entirely consistent with the Source Identification BIN that has been incorporated in the 2005 RFA.

Allegheny County, PA. Reviewers also gave strong support to the Allegheny County, Pennsylvania project. One stated, “[t]he work plan has clearly defined objectives and project design was consistent with the objectives. Model-to-monitor, source apportionment and public health risk assessment elements are strong, and National Air Toxics Assessment (NATA) models are referenced.” Although about 50-percent of the budget supports in-house labor, it was noted that the work plan leverages work that has already been undertaken by Carnegie Mellon University and the University of Pittsburgh. The commenters apparently felt that the 50-percent level was acceptable under the circumstances. Reviewers felt that significant benefit to the community will result from quantification of the relative contribution to assessed risk from regional, mobile and industrial sources in the area. The lack of a plan to communicate the results to the community was, however, noted.

Spokane, WA One reviewer stated, “[t]his appears to be a very worthy project providing data measurements for a number of purposes related to air toxics and public exposure. The project appears to have widespread support and leverages considerable resources from interested parties. The study collects additional information to aid in source apportionment, data use is well defined to address specific issues and goes beyond the data collection period, and new technology evaluations would be associated with the project and available to interested parties.” Another reviewer noted approvingly that the work plan was very well developed and thorough and that the innovative technologies proposed may have national implications as well as the methodologies...for comparison and evaluation. “The proposal is focused and could produce significantly useful results” was the reviewer’s conclusion. A third reviewer concluded that Spokane’s proposal was “a good example of a community-based air toxics monitoring program that has some really interesting technologies that will be evaluated and will tell us a lot about the utility of this [community-based] approach.”

Portland, OR This project was considered, in the words of one reviewer, “a strong and relevant proposal with potential for significant capacity building.” Another reviewer stated that time-resolved gas chromatography has potential for national application, and that high potential exists for benefit to the community from the emission reduction strategies that will be an outgrowth of the project. The model-to-monitor comparisons, use of existing infrastructure in place to enable inclusion of workgroups with community

representatives, and sites selected to target varied source categories, including categories exclusive to local domain (e.g., residential wood combustion) were all cited with approval by the Steering Committee reviewers. The agency's lengthy experience with air toxics and its laboratory analysis capability were also thought to benefit the project.

Some proposals raised specific concerns among the reviewers. For example, two proposals were considered to have meritorious aspects, but reviewers questioned whether cooperative agreements should have been awarded to agencies that planned to subcontract virtually all of the funds. Specifically, reviewers noted that "almost 100 percent of the funds are contracted to labs and consultants associated with the lab analysis" for one project. Moreover, the proposal of another proposal was similarly criticized, with reviewers noting that 91 percent of the award would be passed through to two universities for an extension of an existing air toxics program. Neither project would, in the reviewers' opinions, build the air toxics monitoring capacity of the relevant state agency—an important criterion for the Committees.

A few proposals that were funded by EPA raised serious quality issues. One was considered vague and unclear on a number of important issues, unlikely to build capacity in the agency, unlikely to confer national benefits, and deficient in provisions for data analysis and public communications. If the Steering Committee reviewers had been awarding the grants, it would not have been funded.

Another proposal was thought by reviewers to lack important details. Significant aspects of the study were hazy, as evidenced by, for example, a passing reference to cooperation with unnamed universities that would provide support for equipment, monitoring field work, and other services. Technical concerns were also noted about the monitoring methods. (See below.) And, although the project was thought to have potential value to the larger community and its State-Tribal-EPA partnership was considered beneficial to the community, the proposal was considered short on specifics relating to data analysis, and was thought to have limited national applicability. The Steering Committee would have questioned the cost-effectiveness of funding this proposal as submitted.

Technical Considerations

Reviewers had technical questions about several of the proposals. For example, one reviewer noted that the primary emission source listed in one proposal was a paper mill, but that some of the pollutants normally associated with paper mills were not covered in the proposal. This reviewer felt that these additional emissions of known carcinogens should be monitored in order to identify the compounds contributing to the elevated cancer rate in the area, the primary objective of the study. Another reviewer questioned the methodology planned for a particular project, single particle mass-spec measurement for metals and elements, noting that, "it is unclear how relevant the Single Particle MS method is for toxics." A third reviewer stated, "TO-15, IO-3, BC at one site, (EPA DOAZ Mobile), EPA GC, Formaldehyde and acetaldehyde by canister [are the pollutants being monitored], which may not work [and] continuous carbon (R&P5400 [is] not a

good choice.” We recommend that EPA consider utilizing the practical experience of Steering Committee members, either formally (perhaps through formation of a technical review committee) or informally, to review and discuss the technical sufficiency of proposals before making the final award decisions. A small committee of this nature will be reviewing CASTnet technical findings. We encourage EPA to expand the functions of that committee to encompass air toxics cooperative agreements as well.

Timing Considerations

Concerns were raised relating to the timing of one proposal. The reviewer felt that EPA should consider delaying the project since it is partially dependent on PM2.5 funds under section 103 that are now being reallocated¹. Moreover, it was noted that the technologies being used to monitor continuous formaldehyde and trace level carbon monoxide are still in the development stage and are currently undergoing field testing in the National Air Toxics Trends Sites (NATTS) program. “[S]tandard operating procedures (SOPs) [for these technologies] and quality assurance project plans (QAPPs) appear to be in a state of flux.” Furthermore, the reviewer stated, funding limitations are curtailing VOC and PAH measurements that would provide more information about mobile source signatures.

Another reviewer raised concerns about the timing of a different proposal, which did not envision data analysis and assessment to end until the second quarter of 2007, although the base monitoring was to be completed by the end of 2005.

Continuing Projects

There appeared to be some variation in accountability and standards to which long, ongoing projects will be held. For example, the South Coast work plan, which builds upon the existing Multiple Air Toxics Exposure Study (MATES III) underway in the Los Angeles air basin, was thought to be “thorough and complete, with well thought-out strategies and methodologies which leverage existing infrastructure and data...with almost all elements explained and specifics given.”

On the other hand, two other projects that also continued previous air toxics monitoring work were considered by the same reviewer to be general and lacking in detail. The reviewer felt that far more information would be needed to ensure that proper methodologies were utilized. Addressing one proposal, he stated, “[a]lthough it is assumed that the evaluators were familiar with the previous project, technical expertise and project oversight capabilities of the applicant, a more detailed proposal would provide clarity and transparency of the process.”

¹ In fact, there is little guidance currently concerning appropriate funding sources for air toxics that are precursors in their vapor phase to fine particulate pollutants. Should wood smoke, diesel exhaust emissions, and formaldehyde, for example, be funded under these air toxics 103 cooperative agreements or under the PM2.5 103 funding? The Committees encourage EPA to address this question.

Similarly, the reviewer believed that “[a] more intimate knowledge of the previous projects would be needed to fully evaluate the proposed project, [which lacks] QA/QC aspects as well as data analysis methodologies.” The Steering Committee believes that EPA should hold proposals relating to ongoing projects to the same standards and criteria as new projects in the absence of special circumstances.

Public Access and Transparency

The Committees encourage EPA to require applicants to submit the QAPP, outline of report content, methodologies and strategies as they are developed and to make these documents available online in one location in order to provide interested persons with information and to further the “transparency” of these projects.

Recommendations

Based on the discussion above, the Committees recommend the following measures be undertaken by EPA relating to cooperative agreements for air toxics monitoring under section 103 of the Clean Air Act:

- Agency Capacity Building should be given significant weight in the evaluation process
- National Applicability should be given solid weight as a criterion
- Communication of Project Results and Data should be added as a criterion in addition to data analysis
- Geographic Equity should not initially be a consideration in awarding these grants; initially they should be based on merit alone. If this approach is adopted, it can be revisited in the case that unanticipated geographical “clustering” occurs as the program matures
- EPA should consider adopting a presumption against refunding an applicant that has received a funding award in the last three years in order to disseminate these funds to as many motivated agencies and communities as possible.
- Appropriate flexibility in administrative requirements should be given to small agencies and to agencies embarking on these applications for the first time.
- Consideration should be given to broadening the review of the proposals to include technical review by the Steering Committee or a subset of it.
- EPA should be sensitive to timing considerations in making these awards—particularly regarding contingent technology and fluctuations in funding levels.
- Applications for continuing projects should be held to the same standards as all other projects
- Public access and “transparency” should be encouraged by posting project documentation on a web site as it is developed.

In sum, we are pleased with EPA's revisions to the Evaluation Criteria in the FY2005 RFA and with the addition of the BINS concept suggested by the STAPPA/ALAPCO Monitoring Steering Committee. The Committees' impression is that we would all like to reach the same point through air toxics monitoring funding: We all are working toward the time when local air quality is clearly understood and the contribution of all sources identified; when community air quality baselines are established in order that progress can be evaluated; and when community leadership is united by the common goal of improving air quality. We look forward to working with you further as this vitally important air toxics monitoring program progresses. Please do not hesitate to contact one of us or Mary Stewart Douglas of STAPPA/ALAPCO if you have any questions about this letter.

Sincerely yours,



Dick Valentinetti
STAPPA Co-Chair



Jack Broadbent
ALAPCO Co-Chair

c.c. Mike Jones
Phil Lorang