monitoring around schools. And along with that she emphasized the need to involve the community in that process. As a result of that, the Air Office and the Office of Environmental Justice pulled together a workgroup under the NEJAC to work with the process and to provide some recommendations. So they are here to provide their draft report and to discuss with you their recommendations.

Now this is for the purposes of review by the parent committee, meaning the NEJAC Council, for the purposes of transmitting a set of formal advice to the Administrator.

So I am not going to, for lack of time, I am not going to go through every single person.

This is going to be done in two parts. The first is a presentation on the status of the work and then the second is a presentation on the report itself. So I think Chet you are the first one?

EPA School Air Toxics Monitoring Initiative

Status Report about Monitoring Initiative

By Richard (Chet) Wayland, EPA Office of Air Quality Planning and Standards

MR. WAYLAND: Yes, thank you Charles.

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I am not going to reiterate a lot of this because Charles kind of went through this and how this came about but I did want to point everyone's attention to that third bullet which was that the Administrator committed to mobilizing

within 30 days after her confirmation hearing. And so I think it was very clear to us in the Air Program that she was serious about this, she was going to take action, and so we did; we moved out very quickly once she made this commitment to Senator Boxer and to the rest of those on the confirmation committee.

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What I wanted to do was give a little bit of an overview of the project and where we are status wise. After this commitment by Administrator Jackson we did announce a monitoring initiative on March 2, 2009 for 62 schools in 22 states and it would start at the end of March, March 31.

The purpose of this was really a screening analysis if you will which was to measure the levels of air toxics in outdoor air around selected schools and to evaluate the potential for impacts on health of school children, staff, and school community over the long term.

We recognize this was not a full-scale risk assessment. It was intended to be a screening analysis to determine if we needed to do more at any of these schools.

As directed by the Administrator, we wanted to look at a diverse set of schools. We wanted to look at schools near large industries, schools in urban areas where you have a mix of sources including mobile sources as well as small air toxics sources, and we also wanted to look at schools in EJ

areas specifically.

So we selected the schools based on several criteria. Everyone knows *USA Today* had done their ranking. They had ranked schools all across the country. We had some concerns about some of the ways in which they had done their ranking, none the less, we did think that we should look at some of the schools in their top listing. So we looked at the top 25 schools in the *USA Today* ranking, a school here or there may have dropped out as we went through our process but we started with that.

One of the concerns we had was that their ranking was based on the RSEI data which is a good dataset but it also is only based on the TRI data so it is point source information only. We wanted to use the National Air Toxics Assessment which is a much more comprehensive inventory; it has point source data, area source data, and mobile source data.

In fact *USA Today* probably would have used that data had it been publicly available but the 2002 data, at that time when they did their story, was not publicly available so obviously they could not use it. The only data they would have had for NATA was 1999 and they felt that was too old. So we looked at the NATA data to also try to decide where we should be focusing on.

And then probably the most key piece of this was

that after we had that initial list of schools, we sat down and talked to the EPA regional offices, state and local air agencies, and got that local input about what schools made more sense to be looking at in their area. In many cases schools dropped off the list and schools were added based on that local feedback. And this vetting process went on for about a month or so as we were trying to get the list more refined.

We also conducted a high-level EJ screening analysis which tried to determine whether some of these schools were in EJ areas or not and it turns out, of the 63 schools, about 40 percent of them were actually in EJ communities.

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We felt that, you know, while this looked to be just a monitoring project it was obviously much more than that and so we had to communicate and reach out to several organizations within EPA as well as external to EPA. So we did meet with the Office of Children's Health, the Office of Enforcement and Compliance, the Office of Transportation and Air Quality, OPPT, and others in EPA because we recognized it is not just going out there and monitoring the data, what do you do if you find something? How do you deal with it from an enforcement standpoint? What are the issues with Children's Health? So we did meet internally at the beginning with these other EPA offices to make sure we knew where we were going to

do.

We also met with external stakeholders and one of the big ones there was the state and local agencies because they were going to be the ones doing the actual monitoring. So we wanted to make sure they were comfortable with the approach we were taking and what we were trying to do. EPA was going to fund the actual monitoring equipment and the analysis but we were asking for in-kind support from our state and local partners to actually go out and do the monitoring.

We also, at the Administrator's direction, we sat down with OEJ and established the School Air Toxics Working Group and this is one of the more beneficial things we did because this gave us a lot of feedback, and we will talk about that, on how we communicate this information and how we should have gone about this process. And I think in hind sight this was one of the best things we could have done; was to have this initial upfront discussion and have this discussion throughout the process.

We also met with the Pediatric Environmental Health Specialty Units, the PEHSUs, and talked about messaging. One of the things they told us was keep it simple in many ways because you do not want to put such a complicated message out there that people cannot understand it. So they were very helpful in giving us some of that messaging as well.

And then, as I said, we met with the regions and the

local districts so that they could work with the local school boards in the districts there to make sure they were aware of what was coming, what we were going to be doing, so monitoring equipment did not just show up and no one was aware of that.

The last bullet is probably the most key thing about this project from the standpoint of trying to be transparent. We developed a monitoring plan, project description, and we put all of the data out on EPA's website, www.epa.gov/schoolair. To date there are probably close to 30,000 data elements that have been put out there for the schools project alone, and I will talk a little bit about the pros and cons of that, but we do think that was a good process to get that information out there.

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So the charge to the working group that was set up was really to gain insights on communication strategies. The type of information that communities needed and what additional steps EPA should take to assure these materials are accessible.

You know working at a headquarters office, this is something that we are not accustomed to doing on a regular basis, getting down into the community level, so it was really, really beneficial to us to have that feedback and to help us know how to craft this message and how to communicate better with these individual communities.

The specific questions were; what questions are environmental justice communities likely to have? What are they going to ask about this initiative that we may not have thought about?

What steps should we, EPA, take to ensure that the information it disseminates about this initiative is accessible to EJ community members? You know, is putting it on the web good enough? Is there more that needs to be done?

What potential barriers could affect how EJ community members receive or access EPA's communications materials about this initiative?

So all of this was very helpful as we tried to figure out the best way to work with the communities, recognizing that we had local agencies involved as well; how do we communicate with them to work with their communities?

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So we received a lot of very useful feedback from the workgroup and I want to go through that quickly and then talk a little bit about where we are with the project currently.

But the contributions of the workgroup included the Community Involvement Plan and improvement of the website. We will just focus on that for a second, the website is I think ten times better than it would have been without the feedback from this working group because they really gave us a lot of

good positive information about how to put the information out there, how to package it, and how to make it so that it was understandable. And I think that is something that a lot of technical folks in the agency, when we start doing projects like monitoring and data collection, we lose sight of that sometimes because our minds are in the technical aspects and not always in that communications piece so it was very helpful.

Discussions on future directions; this was the first step going out there. Where do we go from here? That is one of the things -- the information, the questions we got back from the workgroup, things we are still going to be working on.

Developed EPA capacity and understanding of EJ issues; as I said, we are not always aware of this and it was really helpful to have the workgroup provide that feedback to us so that we could kind of take that into account as we are making our decisions.

And then input on the monitoring plan; we had a lot of discussions about the monitoring plan. We tried to be as transparent on that as we could be but I think there were still questions raised by the working group about why we did this and why we did that. And in many cases, it was questions we had answers for but we had not communicated it very clearly so I think it was helpful to be prodded along and asked those

detailed questions to get us to be a little more clear in our communications.

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So specifically, the workgroup recommendations on the Community Involvement Plan were to focus on communities as well as school personnel and parents. So even though this was set up to be monitoring of schools, don't just focus on the school itself because the kids, they go to the school, they live in the community, their parents live in the community so you have to focus on the community as well as the school personnel itself.

Offer opportunities for students and community members to engage with the effort. We did not probably do as much there as we would have liked, some of this had to do with timing and rushing to get this project underway. But the idea was could we have brought the kids in the classroom in to some of this and had them do some analysis. There were some discussions at some schools about the kids looking at meteorological data and trying to just be a part of that, you know, which way was the wind blowing this day.

But as far as operating the equipment we ran into some issues there because it is fairly sophisticated equipment and it was locked up and the state or local agency was the only one that had access to go in there and actually man the equipment. But a lot of suggestions there that I think could

pay off down the road.

Maintain on-going communications with communities and schools. I think that has been helpful as we have kind of reiterated passing the data out to the schools in an interim phase and talking to them about what we are seeing and what we may be coming up with for conclusions even before we have the final report; that was useful feedback to us.

Address concerns of school officials about engaging communities. We tried to reach out to the schools and let them know ahead of time what was coming so they could engage their community. And I think we had varied success. A lot of that depended on the local agency and in some places it was better than others.

Use alternative means of communications, involve communities in decision making, seek input on future directions of the monitoring project, and then seek input on how to respond to communities. I will not go through all of these in specific detail but a lot of these are things that we tried to do along the way in this current project but they are also things that are going to help us tremendously as we look at where do we go from here.

Because again I will say this project was on a very, very fast track to get out there and get the monitoring set up. There were things we could have done better and I think we have learned some lessons along the way on that.

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With regard to the website and review of the documents, as I said earlier, I think this was actually one of the highlights of the project to date. The working group was very, very supportive in providing feedback on the layout and the design of the website. I think it aided tremendously in having a product out there that was easy for people to follow and understand. I think where we started and where we ended up was night and day. I think the website is much better today because of the feedback from the working group.

They brought out some issues about the rationale, for example, the selection of schools. And even on the meeting on Tuesday it was not clear that that had been communicated as clearly as we would have liked.

I think, you know, internally to EPA I knew exactly how we came up with the list of schools; that did not always get conveyed as clearly on the website and other things. And I think those kinds of feedback, questions, and digging into the issues is helpful to us. And obviously this is still an ongoing project so we can continue to make improvements there.

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One of the things the workgroup pointed out was that we did not have any tribal schools on the list of 63 schools. And so this was not necessarily an oversight on our part but when we went through our “ranking” if you will, and I

will put ranking in quotes because we really did not rank top to bottom. We wanted to look at a diversity of schools in different situations. But when we went through that process there were no tribal schools that popped out so we specifically went back in, sat down with the tribes and talked to them about the project we were doing, and we selected two tribal schools that from a risk standpoint may not have risen on the list of schools that we had in the 63. But we felt it was very important to meet with the tribal community and show them that we cared about this as well and we wanted to make sure we were focusing on schools in tribes. And we picked two schools; one in Idaho and one in Colorado that were raised as concerns by the tribes. They said these were two schools they had concerns about so we went in to monitor there.

And I will say on the tribal system, they have set up their own tribal environmental monitoring workgroup as part of this project. They will actually be taking the monitoring data, working with the TAMS Center, so when they finish at those two schools they will move it to other schools and then on to other schools. So the tribes are somewhat independent of this overall project but they are going to take this and continue to move forward with it. So I have been very excited about the engagement of the tribes and how well that project has worked out so far for those two schools and it looks like it is going to have a future life as well.

And then also we continue to develop an outreach strategy to the tribes. It is a little different for the tribal schools than the urban schools so we had to develop a little bit different communication strategy.

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So now what everybody has been waiting for, after we got through some of the background here, is the current status of the project today. We are now at 65 schools, counting the 2 tribal schools. We added one school, went from 62 to 63, primarily because we had a school in Virginia where the school decided not to let EPA monitor on its property. Luckily there was a school adjacent to that school that did allow us to go on and monitor on its property. So by doing that we actually picked up data for both schools because they were so close to each other we could have actually applied the data to the same school so we went from 62 to 63 and then we added the 2 schools in Indian country.

EPA-funded monitoring is complete now at 41 of the school of the 65. It finished up in December. We are still getting the last bit of data in and collecting it and analyzing it. The remaining 24 schools will be complete in April of 2010. Everybody would have been done had there not been a sampling error in VOCs for these additional schools.

What happened is we had a malfunctioning piece of equipment if you will. I thought it was of improper design,

the vendor says no that we just installed it improperly, but we can go back and forth about who was to blame there.

But it was just a case where if you did not tighten the valve properly, the fittings, if you tightened the outside fitting and you didn't realize there was an inside fitting inside a timer box, as you tightened one you loosened the other. If you knew that there was an inside fitting and you tightened that and you held that inside fitting, then everything was fine. But in many cases the state and local agencies, you know, we were not aware of this so as they tightened the fitting on the outside what happened is it created a vacuum inside of the timer, it sucked air out of that plastic fiberglass timer box and of course everybody knows what plastics are made of, so it contaminated the VOC samples. So we have eliminated that timer from the monitoring stream and we are going back and recollecting samples for those 24 schools and that will be done, again, in April.

The analysis, as I said, is underway. We had two schools that really got out in front in Tennessee. A special thanks to the EPA Region 4 and the state of Tennessee folks who were able to get equipment quickly and get it deployed and get the monitoring done. Those two schools are done, the final reports are done, and they are on the school's website.

It says here, five reports completed in January. We were hoping to get them completed in January, it is now near

the end of January and they are not done so I think it will probably be sometime in February when we get those next five reports done but we will get those out.

And then the rest of the reports will be trickling out as we go through the spring and definitely finished up by summer we hope. And the reason it is coming out in sequence is the monitoring finished in sequence. Everybody did not finish at the same time. And we are also trying to wrap up some of the higher priority schools if we can and get them out. So they will be coming out in a sequence as we go through the spring but all of them should be done by this summer.

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Some outstanding issues that are there; really kind of three key points here and one is manganese. We have seen samples; Gina McCarthy mentioned that earlier this morning, that we have seen some high samples of manganese at a few schools in Ohio and West Virginia. I think we know we are going to have to do something more at those schools. We have not finished our final report yet. Once we do we will make our official recommendations. But looking at the preliminary data, I think it is obvious we need to do more at those schools via it more monitoring, via it more analysis, via enforcement and compliance. We definitely need to go in there and look at those.

The VOC monitoring I just talked about. We had the timer box flaw and so we had to go back and redo some of that monitoring and we will see what the new data comes in for those schools.

The third one is acrolein and when we did the acrolein monitoring we saw high levels, I would not say exceptionally high, but we did see elevated levels at many schools across the country. And when you compare these numbers to acrolein data that was in our normal air quality database from other toxics monitoring over the last ten years, it is very consistent. So it was not like we were seeing something at the schools that was different than what we are seeing everywhere else.

But as we got into this there were a lot of discussions with state agencies and even some academia about well, which method did you use for acrolein, and how did you clean your canisters and things like that. Everything we did we did consistently but there was a lot of debate about well maybe you should have looked at this approach and that approach.

So one of the things we are doing right now is an independent test for acrolein alone. We have several labs involved. We are looking at how do you clean the canister and how do you process that canister and trying to see if there is any difference between these different approaches.

And if one yields a marked difference, then we may have to think about going back and doing some of the acrolein sampling again. If we do not see a marked difference between the different approaches, then we will go ahead and release the acrolein data we have. And that is one reason the acrolein data has not been posted, is we want to go through this independent analysis before we put that data out there and see what we can find out. And that analysis should be wrapped up, the actual analysis should be done at the end of this month and then we have a couple of weeks to do the analysis of the actual sampling and see what it looks like. But that is kind of one of the outstanding issues that is still out there.

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So lessons learned; you know I think while we are not finished with the project yet, there are a lot of things we have learned along the way. And I think the working group has provided us some lessons and some things to look at which has been extremely helpful.

But transparency has its pluses and minuses. And I do not want to criticize transparency because I think it is absolutely essential to credibility and to getting public support for these kinds of projects.

But one of the things that we found is that when you rush to be transparent, you can put data out there that is not

fully quality assured and checked. And you know we had some of that where there was a real push to get data out on the web and we got it out there and then we had to pull it back and that creates another credibility problem; why are you pulling data back? So I think transparency is very important and we have to continue to do that with this project. I think we have to make sure we expedite our quality assurance processes and make sure we are comfortable with the data before we put it out there but at the same point we cannot sit on it either. So I think we have learned some things about how to do this.

Before I took on this task, in years past I was the leader of EPA's Air Now Program which provides real-time air quality for the AQI for ozone and PM and we went through some of those growing pains with that. This one obviously is a little bit more sensitive because it is toxics and people are much more concerned about it. So I think we have learned some things about making sure we have a good process before we put it out there but don't wait too long to get it out there.

Posting data in real time provides ample opportunity for the public to review. I think that is true. We are getting feedback as the data gets out there. People are allowed to comment on it.

School focus may not capture maximum air toxics exposure in communities. This may sound common sense but it is something that I think we did not grasp initially but I

think we realize now that focusing just on schools, you may miss a higher risk problem in that community. And so one of the things I think we want to look forward to as we go forward is, what is the best way to look at communities and to monitor in communities and to do this kind of an assessment? Is it to just focus on schools or is it to keep a focus on schools but also recognize the broader community and try to look at that as well?

Coordination upfront with communities is vital but it does take time and resources. We were all over the map with regard to how successful we were on that.

One example I will give you is the South Carolina Department of Health and Environmental -- DHEC, I cannot remember the "C" but in North Charleston they already had a tremendous relationship with that community so when we said we were going to monitor a school in North Charleston there were no questions asked. They went in there, they set up the equipment, the community was immediately engaged and fully behind it.

In other communities where there was not that relationship between the local or state agency and the community, it was met with a little more of a, why are you doing this and I am not sure I want you in my community. What is going on here? A lot more apprehension.

So I think we learned it is critical to have that

upfront coordination and if a local agency has it, it is even better because they are welcoming when you come in there with your monitoring equipment and to take samples.

Local communities know the issues. We went through this hierarchy to determine where to site these monitors at these schools and we think it was a pretty good approach using modeling and the National Air Toxics Assessment data. But you know, as I said, when we got down to the really bottom end of this, it is the local communities who knew where the problems were. They said "you know that is the wrong school; you need to be over here." And in many cases we did go over "here."

But I think what we realized is you have to engage that community because they know where the toxics problems are in their communities, they want EPA to come in there and monitor and validate that. And so as we move forward beyond here, I think we do need to think about our modeling tools alone enough to figure out where to go. You also cannot forget about that human element and that local feedback.

Monitoring data alone is not the only thing -- when we went through and sited these schools, and as I have said before, we looked at the *USA Today* analysis, it turns out that a lot of the schools were picked and ranked because emission numbers were wrong. The TRI data was wrong. The NATA data had wrong emissions in it because it was data we got from a state agency or from an industrial facility.

We are never going to get down to the bottom of toxics if we do not start getting better emissions inventory data from these facilities because that will allow our models to better pinpoint where the risk is. So I think monitoring is key because that is what people breathe, but we really need to get better information on the sources as well.

And then finally we need to coordinate with communities on follow-up actions. That is kind of a no-brainer but I think a lot of times it is forgotten. And I think once we know what we need to do and where we need to go, we need to sit down with those communities and say, here is what we found, here is what we think we are going to do next, and what do you have to say about that? As opposed to, we know what is right and we are going to do it. We need to go in there and say, what do you have to say about that with your local agency in that community and move forward.

And I think that is part of our plan as we go forward with these final reports which is sitting down with each community and the schools and figuring okay here is what we found, what do you suggest we do and here is what we think we will do and work that together.

So with that I want to turn it over to Vernice to go through her part on the NEJAC.

MS. MILLER-TRAVIS: Thank you Chet. And I just want to highlight for folks under the Committee Action Tab in your binder, the first document in the binder is the School Air Toxics Monitoring Work Group, our actual report. Chet and I are giving you highlights from the report and obviously we are not going to walk you through every page; that is why we sent you the report, but we are going to walk you through some highlights.

But first I want to introduce you all to the members of the workgroup and our EPA colleagues. I believe Candace Carraway is here somewhere in the room. Candace is the Environmental Justice Coordinator in OAQPS and she and Laura McKelvey were the two OAQPS staff who worked hand-in-hand with us and were an intimate part of this process.

These are the members of the workgroup; don't panic, we are not all going to speak. That includes also Hilton Kelley, Claire Barnett the Executive Director of the Healthy Schools Network, Alexandra VelValle who is formally the Deputy Director of UPROSE; she represented Elizabeth in this workgroup and she has now moved on to another position but she was also a member of this workgroup so we just wanted you to see the folks who really worked so hard. And Katie, your own Dr. Katie Brown is the Co-Chair of this workgroup. So these

are the folks.

But I also want to take a moment to mention some other people who work for EPA who were part of this process, Victoria Robinson was our DFO as well, Chet you have just heard from who is the Director of the Air Quality Analysis Division at OAQPS, Laura McKelvey and Candace Carraway from OAQPS, Kelly Rimer and Allison Davis who do communications at OAQPS, Dave Guinnup who is in the Risk Assessment and Analysis Division at OAQPS, Cynthia Peurifoy who is the EJ coordinator for EPA Region 4, and Paul Wagner who is also on the staff of EPA Region 4. So we had a lot of people working on this; so I just want you to know that this report is the result of the thinking and participation of a lot of folks.

So now to our part of the report; so we are going to jump right in. These are areas that we think could stand some improvement going forward -- no, let me back up and say a couple other things.

We gave an interim report to the NEJAC in July. We walked you through the website and we took you through a real-time experience of the website. Chet has talked to you about it and Gina talked to you about it. It really is an extraordinary tool and one of our recommendations and findings is that other entities within EPA should look at modeling that website to get technical data out to the community.

The workgroup members feel that we have pretty much

accomplished our charge by the time the July NEJAC meeting had rolled around. That was the original charge to the workgroup which was to help OAQPS figure out the most effective communication strategies to reach the populations and the people in the communities that we were most trying to get this data to; so that was our original charge.

But by the time we got to the NEJAC meeting and had helped to develop those communications tools, we had pretty much executed that original charge.

But then things began to morph. Once the data came back, it became sort of a whole other project, not just about communications but about a real conversation about what that air toxics monitoring data was showing and a real discussion, a real back and forth and push and pull, about what the agency felt the data said and how we felt the data should be interpreted and communicated to the public. So it really became a whole other conversation that went way beyond the bounds of strategic communications and effective communications.

And Chet is going to come back after I finish and talk to you about a proposal for a revised charge; but that is the reason that we think we need a revised charge. Because we are now in a whole other dimension of this project that goes way beyond communications but gets to the meat of what is the data saying, how do you interpret the data, and how do you

then communicate that to the public?

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So now on to our findings. So the first is Areas of Improvement: Early and sustained involvement of, and communications with, the affected communities. That could stand to be enhanced in the next phase of this effort.

Chet already talked about the involvement of students in hands-on scientific research. We think that this could be a real learning tool for young people particularly young people in these schools who are being monitored to know what air toxics are and how it affects them on a daily basis.

Collaboration with other stakeholders; that there is a need to really have a much broader array of folks and entities involved in this process. This is not just about EPA though EPA has stepped out; what about local school districts, what about state boards of education, what is their role in this? What about the public health agencies, state public health agencies and municipal public health agencies? EPA is at the federal level but there are ground level folk who really should be involved in this and monitoring this data. When EPA cannot do it, they should be doing it.

Budget for community outreach and involvement; the agency appropriated $2 million to purchase these new monitors and put these monitors out there and begin this process but there was no money allocated for the actual communications

process. So that whole portion was sort of a, you know, in-kind donation from the agency and the other people who participated but there was no appropriation for the actual communications effort.

The process for evaluating the effectiveness of the outreach efforts to inform and engage affected communities. That could stand some improvement in the second phase of this effort.

Positive Outcomes: Information on the website that was comprehensive, well organized and accessible to the public. I know we keep talking about this website but we really, really, really like it and we hope you will go in and look at it and see what an effective tool it is.

Posting of monitoring data online that reflected well on EPA's commitment to transparency and openness. And as Chet said in his presentation, that has pluses and minuses because they did quality assurance for the data once the data came down and then they posted right to the website so the public could see what was happening.

But in the case of those 24 sites where the data was incorrect, there was incorrect data now on the website and they had to pull it down. You don't want communities feeling like, well they put it up there and then they took it down, what does that mean? You know, is there something nefarious at foot here?. And there really wasn't, it was just the data

was bad so it had to be pulled down. And when it comes out again it will go back up. But we thought that transparency part was really an extraordinary step forward by the agency.

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Our findings regarding coordination among government agencies and NGOs: Lack of communications between EPA, Department of Education, Health and Human Services and Centers for Disease Control. Claire Barnett who is a member of our workgroup is very, very active and engaged with the Federal Department of Education and when she mentioned to them that this effort was going on, they had no idea what Claire was talking about; they had no idea what EPA was talking about. And they really need to be engaged in the public health dimension of what happens at schools.

DOE, Department of Education, has not really stepped up when it comes to environmental conditions and public health conditions at schools. They do not take that on as a part of their mission but it is a part of their mission. And so there has got to be better coordination between EPA and the Federal Department of Education as well as the Department of Health and Human Services and CDC.

There were some missed opportunities for regular review of the project by the Office of Children's Health and the Pediatric Environmental Health Specialty Units. Though the Pediatric Environmental Health Specialty Units were

communicated with initially about this project, there was not a regular stream of communication back and forth with them about this project as it went forward; we think they could lend a lot to this effort.

There were some missed opportunities from EPA to form partnerships with stakeholder communities and all levels of government. And I mentioned that before, both local government, state government, and other federal agencies.

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Regarding our findings about the project scope and methods: Indoor air exposure was not measured. This is a really big issue and you all know what it is but let me put it on the table squarely.

If we are finding elevated levels of air toxins externally, then the next step is what? You know they are inside the schools. The question is at what level are they inside the schools? How does it operate differently in an enclosed indoor environment? Does it change the characteristics of the toxin? You are in an enclosed environment and the children are exposed continuously over an eight hour period, does that represent a different kind of exposure or a more intense exposure? We don't know because we are only monitoring ambient air, we are not monitoring indoor air. So there needs to be some kind of closed loop or continuation of external and internal environmental

conditions.

Potentially inadequate duration of monitoring and perhaps Paul can say more about this or Nicky can say more about this but we did -- what were the samples that we did, 24?

MR. SHEATS: Paul do you want to talk about this? There was two months of sampling, about 10 to 13 samples.

MS. MILLER-TRAVIS: And the question is, is that an adequate sampling representation to make an annual assessment of what the annual levels of exposure are from those kinds of monitoring intervals? We are not sure and we think we can get more clarity about that.

Outside air toxics around schools are not limited to low-income and/or EJ communities. Many, many, many school are affected by this. Tribal schools were not initially included and we would like to see more tribal schools in the sampling going forward.

(Slide)

These are our findings around data analysis, interpretation, and conclusions. The project needs to include child-safe standards of exposure levels. So for example, the only child-safe level standards that we know of are lead. We know that there is a differential level of harm when children are exposed to lead under a certain threshold. That is the only toxin that we know what the specific impact on children

is.

But all the other air toxins and other toxins we do not know the difference of how it affects children versus how it affects adults. Children are not just short adults. They have different bodies, they have different developmental patterns, they absorb chemicals differently, and they are outside more than adults are, they are truly different from a biological and physiological standpoint and EPA needs to have data around how toxic exposure affects children.

This speaks to the overall research agenda for the agency. And if the agency is really going to go forward and look at this, the agency needs an appropriation to deal with this. This is a huge, huge, huge issue. We are giving it short shrift in this conversation but this is a really, really big gaping hole for the agency, for the federal government as a whole.

Cautionary interpretation of the data; we have some disagreement that the agency feels that some of the data that has come back that they feel it does not exceed the threshold for harm to human health in the environment. We have some difference of opinion about that so we want some clarity going forward.

Evaluation of cumulative risks; we were looking at specific air toxics in specific areas but we were not looking at the cumulative exposure of multiple air toxics in those

same areas so that is something that we think needs to be addressed.

Consideration of whether children's health, learning abilities and/or behavioral conditions may be caused or exacerbated by exposures to air toxics; that is something that we think we need to look at going forward.

Detailed protocols for data collection, analysis, interpretation and response actions; we think that they could be sharpened going forward.

(Slide)

These are our findings around potential mitigation measures. The effort lacked detail regarding regulatory response to pollution violations. And this is a real biggy for the workgroup. If the agency finds that there are really, really high levels of air toxics once all the data comes back, what is the furthest extent the agency is willing to go to control or reduce or eliminate those toxics? Is the agency willing to revoke a permit?

And as far as we know in our conversations, we don't know that the agency has ever revoked a permit for a facility that has been operating. They have modified the permit, they have gone in and done more testing, but are they willing to go to the nth degree which is to revoke a permit of a facility that is really, really emitting excessively high levels of toxins?

That is a consideration we did not really talk about but we would like the agency to put that in the pantheon of things that potentially could happen given what they find from this monitoring.

Also that there could be the exploration of Supplemental Environmental Projects which can help leverage resources for mitigation efforts.

(Slide)

These are our recommendations regarding community collaboration and education. Develop a community involvement and outreach plan for future efforts that actively engages communities in a hands on way. Engage communities early in the planning process for the next phase of this initiative. Provide adequate funding to support community involvement. Develop a feedback loop to assess the effectiveness of communications during the implementation of projects and provide oversight of how outreach activities are implemented. Promote the school air toxics monitoring website as a model for other parts of the agency. As you can see, we really love this website.

(Slide)

Recommendations regarding coordination with other government agencies and non-governmental organizations and/or community-based organizations; EPA should establish federal interagency coordination. There are lots of other federal

agencies that should be involved in this discussion. We all keep talking about DOT but there are many other federal agencies that should be in this effort with EPA.

Form collaborative partnerships with external stakeholders and ensure appropriate funding for such interactions.

Coordinate with other agencies involved in environmental health.

Engage EPA's Children's Health Protection Advisory Committee in review and discussion of the findings of this report and the establishment of reference concentrations and Minimum Risk Levels or MRLs.

(Slide)

These are our recommendations regarding project scope and methods. That EPA should expand the scope of the monitoring project at schools to include indoor air monitoring.

That EPA should include tribal schools and communities in future air toxics monitoring projects and you have already heard Chet address that.

(Slide)

These are recommendations regarding data analysis, interpretation and conclusions. That EPA should identify areas of uncertainty about the data and analytical results. That EPA should provide caveats and disclaimers to findings

and interpretations and conclusions as appropriate. And the final one is really important for us going forward, to clarify the NEJAC's role in the review of project protocols.

(Slide)

These are recommendations regarding potential mitigation measures. That EPA should fully employ the strengths of its regulatory clout as needed to mitigate pollution sources around schools. That is the revoking of a permit, the restructuring of a permit, all kinds of other regulatory activities that the agency could take.

That EPA should actively engage schools, the Federal Department of Education, and other community members in decisions about how to mitigate identified air quality problems.

(Slide)

These are our conclusions. That EPA should seek advice from the NEJAC on designing and implementing future phases of the school air toxics monitoring project.

That we suggest a change to the charge, that EPA expand the role of the NEJAC and its workgroup beyond communication strategies.

And that EPA delineate a role for the NEJAC and its workgroup to provide meaningful review of all project protocols.

We have three addendums to the report that I want to

share because they are very important and these came up for us on Monday and Tuesday.

MS. ROBINSON: And they were distributed -- you receive a couple of documents at your chairs, at your table today, and one of them is a one-pager that has the addendum listed of the new recommendations.

MS. MILLER-TRAVIS: Let me just say one thing about the delineated role for the NEJAC and its workgroup to provide meaningful review of all project protocols. We got into a real debate with the agency about our ability to speak forthrightly to the issue of data interpretation and analysis. And we dragged Victoria into this conversation and it became a really big conversation because, as you know, the NEJAC as a chartered FACA is not a peer review FACA. There are other FACAs of the EPA that are peer review FACAs but the NEJAC is not. As a workgroup of the NEJAC, we are therefore also not a peer review body but we wanted to be able to say something specifically about the data as it was coming back, how the data was interpreted, and how that interpretation would then be communicated to the public at large.

We got into a bit of a tiff with the OAQPS scientists because they pushed back pretty hard that we were not a peer review group and therefore had no role or right to speak to the data interpretation or analysis. And Victoria was very helpful in helping us understand that that was not

our role.

But I want to say this to you all, this is the NEJAC; we never limit ourselves to whatever is on the page, right. We always go beyond what the page calls for us to do and so we did that. But we didn't do that because we didn't have anything else to do. I want you to know these are some really busy people, me included. We did it because once the data started coming back, we didn't want the agency to say definitively to communities the air is safe to breathe, you have no problems. We don't know that yet. We don't know all the characteristics. We don't know what is going on inside the schools. So before the agency can say definitively that the air is safe to breathe, we think we have not gone the full nine yards yet to really figure that out. So this became a really bit point of discussion.

We were really happy to have a conversation with Chet on Tuesday that really, I think, worked through a lot of these concerns and gave us the space to figure out what we would do in a second phase of this project.

I also want to say that we had a wonderful conversation with Assistant Administrator Gina McCarthy who joined us in the workgroup conversation on Monday and talked through a lot of these issues with us and heard our concerns. And you see how forthright Gina is and she reflected a lot of that dialogue she had with us in her report back to you

earlier.

So these are the addendum to our data analysis in our report, that EPA should include demographic data of the communities around the selected schools in the final report of Phase 1 of the School Air Toxics Monitoring Initiative.

This is our addendum to the project scope and methods recommendations. As EPA moves forward on Phase 2, it should consider environmental justice factors (such as race, income, free and reduced-price lunch, prevalence of asthma, and special education needs in the student population) as part of its criteria for selecting schools and other monitoring sites.

And finally in the coordination among government agencies and NGOs recommendations, that EPA should coordinate with the Centers for Disease Control and the Department of Education to obtain health data (such as asthma rates, and hospitalization and emergency room visits) and collaboratively achieve consensus on how to incorporate these data in its monitoring site selection criteria.

And there you have the report from the workgroup members. And Chet has one final component of this.

MR. WAYLAND: And based on that feedback, EPA has a proposed new charge to the NEJAC SAT Workgroup and so I guess I will actually read through this as opposed to paraphrasing it.

(Slide)

Although the parameters of the next Phase of the monitoring project are not yet defined, in other words we are not sure where we are going next completely because we are still evaluating the first phase, EPA wants to assure that the needs of all the children and especially those in low-income, minority, and tribal populations are identified and addressed in the next effort. The purpose of this charge is to gain insight from the NEJAC about -- we had to put this on three slides to get it on here.

(Slide)

1. Elements to be addressed in any future school air monitoring projects, for example, community oriented and/or focused on schools and childcare centers.

2. How to best identify and address the concerns of the EJ communities in the context of the monitoring effort; and

3. How to effectively engage communities in collaborative approaches to addressing problems identified in the monitoring projects, for example, how to apply best practices on community engagement in the context of monitoring. The NEJAC would be asked to answer the following questions.

How should the next phase of this initiative be structured, with a particular emphasis on assuring that

environmental justice communities benefit from this initiative?

What steps should EPA take to identify and address the concerns of educators in EJ communities?

What are the best mechanisms to build collaborative problem-solving capacity to address the EJ issues/concerns among the federal agencies, states, and communities that are impacted by EPA's new monitoring projects?

And then last, what are the appropriate analytical approaches and methodologies to ensure EJ and children's health concerns are adequately considered?

And that is part of the new charge to the workgroup.

Deliberation

MS. YEAMPIERRE: Thank you and we have 15 minutes to do all that. So really we are not going to be really doing the question and answer thing. The question on the table really is to deliberate on reaching an agreement to move this report forward. The NEJAC needs to act on this report if you are ready. And if you want to provide suggestions for final language and agree on principles and establish a process of finalizing the reports later, that is fine.

There is an enormous amount of work that these people have done. I mean it is staggering. I remember when Alex VelValle from my office was on those conference calls. I could watch her head spinning. It really is staggering and

these are people that are invested at a level that is pretty amazing and they really need to be applauded and supported because I completely defer to their leadership and their guidance on this matter.

One of the reasons that I have to really move quickly is that they only have about 15 minutes unfortunately.

MS. MILLER-TRAVIS: Elizabeth, let me say I have to go; they can stay.

MS. ROBINSON: So what we are looking for is do we have any comments or questions from the members about the report itself, any suggestions or revisions, much like we did with the goods movement?

MR. RIDGWAY: Thank you very much, this is very comprehensive and helpful. I do have to ask just one very small clarifying question. To the reference to the one school that did not want to have monitoring, is there any lesson learned from a school that says “I don’t want you checking out what is going on here” that gets to communication, how we approach the schools?

MR. WAYLAND: It was a very, very small Christian school that probably had 20 students. They just did not want government on their property; that was the message.

MR. RIDGWAY: Was there any suggestion that you could set up a monitor ten feet off their property?

MR. WAYLAND: Well, that is what we offered and as

it turns out 20 feet off their property was where the next school started so we got both. But we worked very carefully with them and tried to make it work and they just said “we don’t want you here.” And we were like, well, we will just go as close as we can then. With air quality, that works. You know, 20 feet away nobody is going to know the difference.

MR. RIDGWAY: Thank you.

MS. BRIGGUM: That was really impressive and one thing I wonder if you would think about as you are going on the next phase of your charge is that there are many other situations much like schools, remedial sites and that sort of thing where good communication of accurate data is really important. So to the extent you think that what you did has some best practices that could be replicated in communicating other data within the agency, I think that would be very helpful.

MS. CATRON: I have been listening in to the tribal teleconferences about this project and just have not really been able to participate at the full level that I wanted to but just kind of listening in.

I think the big question that I had, and this is something that you covered, was the effort lacked detail regarding regulatory response to pollution violations; so basically what happens to the data once you find out what is happening there?

I know when tribes are in the process of treatment as state and how that kind of puts a political damper on everything that is happening as far as their quality goes. You know, that is specific to my area but it might be happening to other tribes and other tribes dealing with air quality. I don't represent tribal government so I cannot speak nationally as far as what other tribal governments are dealing with, the treatment of state process, but I know how it is affecting us at the community level specific to my community.

And then the other thing is about SEPs, and tribes do not have access to SEPs when it comes to the -- well we don't have access to SEPs I believe is what the situation is. Because specific to my community again, Chemtrade was fined by EPA for an issue and I don't know that it was specifically a SEPs that was issued in that process, but the Northern Arapaho were a party to that process. And even though there were states that were also part of that national process, the tribes were not given any funding for that.

So then it goes back to this whole where the money is, the community should be involved kind of thing. You know the impacted community should be involved in that process and a lot of times there aren't a lot of tribal grassroots community organizations working directly with their tribes. And so I can see how it would be difficult to be getting that

money back down to the community level; but all the same, it would be interesting to start kind of thinking outside of the box in how SEPs can work with tribes and community-based organizations and how you do get that money back to the community.

MS. MILLER-TRAVIS: I want Laura to answer this question but I just want to say that after we made the presentation to the NEJAC in July, Jolene approached Laura and I and really pointed out that there were no tribal schools and then Laura and Jolene worked together and others to make sure that there was the inclusion of tribal schools. So Jolene I want to thank you for pushing us to make sure that tribal schools were included.

MS. McKELVEY: There were a lot of questions there but on the TAS situation, I think the TAS -- and for those that do not know what TAS is it is treatment as states and it is a term of art that we use as an eligibility determination to show that the tribe is eligible to take delegation of elements of the Clean Air Act. And in this situation the tribe has put in for this eligibility determination and it is in the process. So I think the concern is that until that is done, there has been some hold up on activities on some of the air quality situations. I think it happens differently in every different tribe and then in some places we have been able to continue to move forward on activities with the TAS.

We need to talk about your situation offline just because there are some political issues with the state that are involved there.

But we have federal authority that we can act on air quality situations where the tribe does not have that eligibility determination. It is the responsibility of the Federal Government to implement the Clean Air Act in those situations. And so if there is a situation where we find a problem at one of these schools in a tribal area, then we can work with the tribe either under their authority or under our authority or looking at voluntary programs to see where we can address it. So I am hopeful that the TAS situation should not prevent us from addressing a real air quality problem where we find it.

As far as where we are with the tribal school program, the tribal workgroup is made up of tribal environmental professionals largely. They have come up with a strategy to do communications and outreach to tribes across the country, not just with air programs but looking more broadly. We want to talk to NCAI, we are going to work through the Regional Tribal Operation committees and other places because we want to make sure that tribes that have a situation that we might not be aware of, we can pull them into the process.

The group has put together a form that the tribe can

fill out that will let us know what their concern is and then that information will be submitted to the TAMS Center, the Tribal Air Monitoring Support Center, and that steering committee which is made up of tribal environmental professionals will prioritize where those monitors go next. And so it will be a tribally driven program.

And so we are in the process right now of doing that outreach so that we can move the monitors. The first two schools are just now packing those monitors up to send to the TAMS Center so we are in the first round of identifying where we are going to go next.

And on SEPs, I am not an OECA person but there are times that tribes can get access to SEPs. It is a matter of is your project in the que to be presented to the industry and so that is something that we can bring back to our OECA folks and make sure that it is part of kind of the ideal list. And it differs from state to state.

MS. McCABE: Yes, I can help you on that. There is no particular rule that I know of Jolene that says that tribes are ineligible to receive the benefits that can come from SEPs. If EPA has an enforcement action against a private party for a violation of the law and that defendant wants to do a Supplemental Environmental Project, there is no reason it could not benefit a tribal community as well as any other community that I know of.

MOTION

MS. YEAMPIERRE: Omega if I may, I would like to move for a vote to see if everyone is in agreement with the basic recommendations and findings before Vernice leaves.

MR. RIDGWAY: I will second the motion.

MS. YEAMPIERRE: Everyone in favor?

(Chorus of “ayes”)

MS. YEAMPIERRE: Okay, any nays?

(No response)

MS. YEAMPIERRE: Okay, cool.

MS. ROBINSON: Just for point of clarification, you are adopting the report as amended by the workgroup with the one-page addendum, correct?

(Committee members nodding of heads)

MS. ROBINSON: All right, thank you.

MR. WILSON: I would like some clarification and help from our esteemed research staff, university researchers Nicky, Paul and Katie. A couple of questions relative to -- I know the indicators are pretty clear about identifying whether we can measure the increase or incidence of asthma and of course we have on here special education and I am not sure of the difference where they separate special education as being academically high students versus the ones who have special needs, whether that is going to used as a measurement indicator in these schools.

And the other question has to do with the growing population of schools either placed around confined animal feed operations from coast to coast or those who are already there and the animal feed operations are growing near them. Where the major air quality problems, whether they will be defined and identified separately from urban rural versus what kind of industry is next to them including the animal feed operations?

MR. SHEATS: Chet was saying do I want to address the first part, no, not really. But I think Omega the answer to the first part is I do not know. That whole issue of the schools and the populations you are talking about, I think Claire is really the expert on that.

But I wanted to say on both parts I think it is really up in the air how these things are defined going forward. And I think that is the real opportunity that our workgroup and NEJAC has. That in the second phase, I think we can be in on really defining or helping to define what happens in the second phase. I think in the first phase a lot of us felt that it was going forward and we were asked to jump on board and sometimes that can be uncomfortable. Where I think in the second phase, in the second part you outlined about CAFOs and I think that is a great question and I think that is something to be considered and we can all work on how that should be defined so I think we have that opportunity.

MR. MOHAI: Yes, let me just add to what Nicky said. I think there is the opportunity to look at those other kinds of environmental problems and I am hoping that we will delve into those questions if and when there is a new charge to explore those further.

But, you know, just so that you all know and I suspect Chet and Laura can speak to this better than I can, that the sample included only 65 schools and they were schools that were identified -- my understanding is at least partly from the *USA Today* article and their ranking. And that article used air pollution data from the Toxic Release Inventory that was modeled into what some people refer to as the RSEI data. Anyway, so my understanding is that sample is fairly limited. I mean we have over 120,000 schools nation-wide and it was a question our group and I think we addressed this in the report and Vernice highlighted it, that this is not necessarily a representative sample and what does this mean for the 125 some thousand schools that were not included in the study? So if the next phase works, we look at that question, where do we go from here in terms of expanding the sample, I think that would be a good opportunity to bring in some of the issues that you mentioned Omega.

MR. MARSH: Lang Marsh from National Policy Consensus Center. Just a very quick question. On the lessons learned that Chet you read, one of the things that caught my

ear and eye was that the school focus may not capture the maximum air toxic exposure in the communities. I did not see anything explicit in the workgroup recommendations nor the charge, though are they not necessarily not there but I did not really see it as something that you -- how you plan to address that if there are future samplings or even as a cross-check on some of the sampling that has already been done.

MR. WAYLAND: I will let the workgroup speak for themselves as they have commented on this. But I think when the charge was -- if you look at elements to be addressed in future monitoring projects, community-oriented and/or focused on schools and childcare centers. It may not have been as explicit, but one of the issues that we really want to get feedback on is are we monitoring in the right place? And are there bigger problems in the community that if you fix that problem, the school will benefit from it? But if you monitor right at the school, you may not realize you have that problem. And I think that is one of the things we found preliminarily in this is that focusing just on schools, we may be missing bigger problems in the community.

And so one of the things we want to do through the working group and I think as Vernice said CPAC* and others. You know should we be expanding this a little bit and thinking a little broader than just on schools. Not that schools are not critical and obviously the focus of this project, but are

we missing something by not looking a little bit broader in the community base.

MR. RIDGWAY: John Ridgway, Department of Ecology. Following on this conversation, I completely agree that the Toxic Release Inventory should not alone be the criteria by which the selection of a next phase would be considered, at least not on its own. Because as you noted, there were errors in the data, one; and two the data was three years old; three, it is only looking at larger industrial facilities for the most part which does not get to the point that Omega brought up; CAFOs are not reported under the Toxic Release Inventory.

So in consideration of what to do next, absolutely it should go beyond the Toxic Release Inventory.

MR. WAYLAND: And if I could just clarify to make sure that everyone understands this. *USA Today* used TRI as part of the RSEI model results to do their ranking. We used that in addition to the National Air Toxics Assessment which is the National Toxics Inventory which is a complete inventory of mobile sources, area sources, and stationary point sources. And so it does have TRI imbedded in it but it also is supposed to bring in all the other sources as well. And it also breaks out risk by cancer and non-cancer where the RSEI approach kind of merged that together. So we used both sets of data to do our rankings. And the schools that we picked from *USA Today*, we picked because we felt we needed to at least look at some

of their schools in their rankings. But a lot of the other high ranking schools did come from the NATA analysis.

But I will be honest, it has the same issues. The Toxics Emissions Reporting to EPA is voluntary other than TRI. TRI for the large sources comes in from industry. There is no requirement for states to submit emissions inventory data to EPA, we get it all voluntary and some states it is very good quality and some state it is not as good a quality. And I think that is a fundamental issue we need to fix down the road which is we have to have better quality emissions inventory or our risk models are not going to give us good accurate information.

And I think we found that pretty clear in this process that you go to a school and, you know, wow, there is nothing there and it turns out the source was off by an order of magnitude. I will say that some of the schools we went into look at in the *USA Today* analysis as well, we found out they had been shut down for two years. So the school's database itself was old and so having current data is critical for anything you are going to do along these lines.

MS. YEAMPIERRE: Well thank you, particularly those of you that volunteered -- oh, is there another, oh I am sorry.

MR. MOHAI: Thanks Elizabeth. I just wanted to amplify Chet's comment about the need for better data. I

think when you look at the available air pollution data, there are flaws in any of the databases that you look at including NATA which is much more out of date than the RSEI data. In fact a 2002 NATA database just came out last year. So at any one point in time it is eight years out of date.

And I also want to emphasize too that it does not seem to me at this point in time that air quality monitoring is enough because they are very expensive, you have to know what you are matching the monitor to what chemical, and if you made the wrong match you are overlooking what may be really the risky thing that is in the environment and wasting time and money. There are only 40 air quality monitoring stations in all the state of Michigan and we have 125,000 schools so it does not sound like a feasible thing to put an air quality monitoring in every one especially if you don't know what it is that you are supposed to be monitoring for.

So I see it as a very daunting task. But I really appreciate Chet's point about the need for these data. I think when you understand how limited the current data are, you can really see the need is very, very dire for better data. So I just want to amplify that point, thank you.

DR. BROWN: I guess before we break up here can we have some feedback relative to the new charge?

MR. ROSENTHALL: Are you looking for feedback from NEJAC or from EPA?

DR. BROWN: NEJAC. It would be a charge to the NEJAC, which the NEJAC would then give to the workgroup.

MS. YEAMPIERRE: It seems as though the NEJAC has agreed with the basic recommendations. I don't know if there is more that they want to add at this time. It may be that they want to look at it and do it at a later time.

MS. McKELVEY: Can I just be clear that the charge was a negotiation between EPA and the workgroup so it is something I think that we have pretty much consensus on.

MS. YEAMPIERRE: And there seems to be consensus from the NEJAC as well. You are asking that it be expanded. Okay, so thank you.

(Applause)

MS. YEAMPIERRE: Well done. Now we are moving on to an exciting part of the agenda, Building Blocks to Creating Healthy Communities; Mustafa Ali is going to be moderating this part where we are going to have the recipients of the 2009 EPA Environmental Justice Awards discussing what they have learned so this is really a cool part of the agenda.

Building Blocks to Creating Healthy Communities

Moderated by Mustafa Ali, EPA Office of Environmental Justice

MR. ALI: Good afternoon. We wanted to take this opportunity to actually highlight the 2009 Environmental Justice Achievement Award winners. We are going to -- we don't have as much time as we had hoped to go through the