

American Chemical Society AMA: I'm Tony Noce, Chair of the American Chemical Society Committee on Environmental Improvement. Ask me anything about how scientists can lend their expertise to policy discussions!

AmerChemSocietyAMA ¹ and r/Science AMAs¹

¹Affiliation not available

April 17, 2023

Abstract

Greetings Reddit! I am Anthony (Tony) Noce, the current Chair of the ACS Committee on Environmental Improvement (<http://www.acs.org/content/acs/en/about/governance/committees/cei.html>). I have more than 27 years of experience in environmental chemistry and environment health and safety (EH&S) consulting, with a focus on global EH&S compliance as well as due diligence and integration services. I am currently a Principal Consultant with Haley & Aldrich, Inc. (<http://www.haleyaldrich.com/>) where I work with clients to help control and mitigate their operational risk, particularly in the EH&S arena, while building their business. I have firsthand experience on how scientists and related professionals can lend their perspectives to policy. The Committee on Environmental Improvement works at the crossroads of science and policy, helping to leverage the chemical community's awareness of and response to sustainability challenges. We help the American Chemical Society's members articulate policy statements on environmentally facing issues such as chemical risk assessment, climate change, and various energy and water sources. You can read my ACS Comment published yesterday in Chemical & Engineering News entitled "TSCA reform and changing our practice of chemistry" here: <http://cen.acs.org/articles/94/i20/TSCA-reform-changing-practice-chemistry.html?h=-1691421665> I really enjoyed doing this, and hope that you enjoyed it as well. Thank you for all the questions. I got through as many as I could in the time allowed. I plan to come back later today or tomorrow if I can. Who knows, maybe they'll even invite me back. All the best!

[REDDIT](#)

American Chemical Society AMA: I'm Tony Noce, Chair of the American Chemical Society Committee on Environmental Improvement. Ask me anything about how scientists can lend their expertise to policy discussions!

AMERCHEMSOCIETYAMA [R/SCIENCE](#)

Greetings Reddit! I am Anthony (Tony) Noce, the current Chair of the ACS Committee on Environmental Improvement (<http://www.acs.org/content/acs/en/about/governance/committees/cei.html>). I have more than 27 years of experience in environmental chemistry and environment health and safety (EH&S) consulting, with a focus on global EH&S compliance as well as due diligence and integration services. I am currently a Principal Consultant with Haley & Aldrich, Inc. (<http://www.haleyaldrich.com/>) where I work with clients to help control and mitigate their operational risk, particularly in the EH&S arena, while building their business.

I have firsthand experience on how scientists and related professionals can lend their perspectives to policy. The Committee on Environmental Improvement works at the crossroads of science and policy, helping to leverage the chemical community's awareness of and response to sustainability challenges. We help the American Chemical Society's members articulate policy statements on environmentally facing issues such as chemical risk assessment, climate change, and various energy and water sources.

You can read my ACS Comment published yesterday in Chemical & Engineering News entitled "TSCA reform and changing our practice of chemistry" here: <http://cen.acs.org/articles/94/i20/TSCA-reform-changing-practice-chemistry.html?h=-1691421665> I really enjoyed doing this, and hope that you enjoyed it as well. Thank you for all the questions. I got through as many as I could in the time allowed. I plan to come back later today or tomorrow if I can. Who knows, maybe they'll even invite me back. All the best!

[READ REVIEWS](#)

[WRITE A REVIEW](#)

CORRESPONDENCE:

DATE RECEIVED:
May 18, 2016

DOI:
10.15200/winn.146348.89431

ARCHIVED:
May 17, 2016

CITATION:
AmerChemSocietyAMA ,
r/Science , American Chemical
Society AMA: I'm Tony Noce,
Chair of the American Chemical
Society Committee on
Environmental Improvement.
Ask me anything about how
scientists can lend their

Could you discuss your career progression a bit? How did you end up in this position? Was it something you originally set out to do? If a college student was interested in similar things, what would you suggest they do?

[nate](#)

Seems to be some interest here, so I'll start with this one.

Started as chemical engineering major, but decided engineering was not where I wanted to go. Ended up with couple of degrees in science and education and planned to teach. Got a job as an analytical chemist in an environmental lab in Connecticut. Realized that Connecticut was not for me – especially when you're young and single and just starting out and have no money – and accepted a position with another environmental lab, but this one is in the Boston area. Much better.

Decided I like the field, but that the lab was limiting. Began to look for a position in consulting, which lends itself well to my peripatetic nature, but was consistently told I lacked experience. Created a position with a small firm that provided the reporting software we used to provide EPA-compliant

expertise to policy discussions!,
The Winnower
3:e146348.89431 , 2016 , DOI:
[10.15200/winn.146348.89431](https://doi.org/10.15200/winn.146348.89431)

© et al. This article is distributed under the terms of the [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and redistribution in any medium, provided that the original author and source are credited.



deliverables at both labs I worked at.

Worked there for about a year and a half, honing my consulting and business development skills. Landed a position as a chemist for a consulting engineering firm, and while I've changed firms several times this is where I am today.

Suggestions for someone interested in doing this? The keys are problem-solving and communication skills - hone these.

-amn

Over the years studies have identified more chemicals as likely contributors of human disease such as cancer. What is your opinion on translating these discoveries to real public policy aimed at reducing exposures? I'd imagine it is a hurdle partly because of commercial interests

[Caderari](#)

Commercial interests - particularly entrenched interests - certainly can pose hurdles. Science is not always cut and dried, and it is this very issue that interests and engages me. I often talk about working at the nexus of science and policy, and this is one of the challenges that makes it interesting.

On the other hand, there are also "cancer scares" and chemophobia. It's a challenge to find the balance, especially when you recognize that science is not always the primary driver in the debate.

-amn

Have you ever come across a business self-regulating effectively ?

[allwordsaremadeup](#)

Not to dodge the question...well, yes, I guess that's exactly what I'm about to do. So let's not do that. In the simplest terms, no.

Having said that, I have seen plenty of businesses working above and beyond the requirements of an applicable regulatory framework because they felt it was the right thing to do. Sadly, I have also come across a number of businesses that actually calculated the cost of noncompliance and determined that the cost of compliance was higher and chose to risk the penalties for noncompliance. -amn

I'm a student member of the ACS looking to go to grad school for environmental chemistry (specific interest in atmospheric and alternative energy). Just wanted to mention common interests first.

Do you have a baseline of the sorts of regulations we'll need if we're to stave off the sorts of environmental disaster that seems to be getting closer at more of an exponential rate than realized? Like, what are the ideal regulations to stave off disaster and then what are the regulations you have to push for if you're going to have any hope it not being ignored?

[CaptainJester42](#)

I don't believe that a regulatory regime alone can be effective. There are plenty of good economic reasons to change for the better, and these can be implemented without changing anything. Having said that, yes, I believe that regulatory regimes are necessary (I'm not naïve and do not trust everyone to do the right thing), but the key to me is about positive options. It's one of the reasons why I encourage my fellow ACS members to develop relationships with their elected representatives and

help those representatives understand the science and its implications on policy. -amn

Sometimes it takes decades to discover (and then to prove) unintended harmful effects of compounds in food and in the environment: lead, tobacco, asbestos, fructose syrup, PM2.5 particles, etc. How can any newly discovered/invented compound be ever considered safe?

[vazdando](#)

Unintended consequences are always a concern, and I strongly feel that cutting-edge testing regimes such as those being developed by the Tox21 program (<http://www.ncats.nih.gov/tox21/>) will help identify concerns. Some argue for an approach based on the precautionary principle, but I feel that would paralyze our ability to move forward. We need to strike a balance and, if new information indicates a concern, address the concern when it arises. -amn

What is your favourite chemical reaction and why?

[jr sweetsweet](#)

The Grignard reaction, because once I understood that I felt like I could pass organic chemistry. (Which allows me to give a quick shout out to Dr. Richard Partch at Clarkson University, without whom I wouldn't be a chemist today. Thanks again!) -amn

Is there a foreseeable path for the global community to move towards plastics made from hemp oil?

[JonnieGreene](#)

Ok, a quick disclaimer: Not my area of expertise.

Gut reaction? No - because you used the term "global community," and I can't believe we have access to hemp oil on the necessary scale.

To riff off of this for a minute, that's one of the issues people struggle with - understanding scale. Having said that, just because something isn't **the** answer doesn't mean it can't be part of the answer. We need to understand that complex problems are not likely to have simple answers and stop looking for the silver bullet.

Solve the problems.

Put together a portfolio.

To paraphrase Mark Watney in *The Martian*, we're going to have to science the shit of this. -amn

As an undergrad in chemistry I find myself drawn to renewable energy. Better put, repurposing of materials. For a few years now I've desperately wanted to work on converting used plastics into simpler hydrocarbons and I've seen some pretty simplistic methods of plastic conversions. Namely, GC to volatilize a myriad of typical plastics and elute the many different products.

Where's the action happening today? Where is the most work being done to repurpose "garbage" into usable energy sources? How far reaching are these programs and are there other processes that repurpose other materials into energy sources?

Currently I'm working for a small scale organic waste management company. We collect food waste, human excrement, paper products, etc. and bring them to a facility that processes it all into compost, water and hydrocarbons, but the facility is not very approachable, they run their own business and give

us back the finished products.

[Derekby](#)

This is not something I am familiar with, but you've piqued my interest. I plan to spend some time looking into this. Thank you! -amn

[removed]

[\[deleted\]](#)

ACS has education at the core of its mission. Check out (<http://www.acs.org/content/acs/en/education.html>) for more information. -amn

How happy are you now that the new FEMA hazard mitigation guidelines include climate change as a concern for hazard mitigation planning? I'm on mobile now, but I look forward to looking into your work!

[miggs331](#)

Happy, but not ecstatic. I view this as an important step, but it is only that - a step. -amn

Do you hire lobbyists to influence our American government, or do you strictly monitor and report?

[JustAMick2U](#)

Neither. I personally engage as a citizen scientist - and encourage others to do the same. I know, crazy, eh? -amn

I know this may be a common, general questions but what are your toughest challenges as an EH&S representative? Or rather, what challenges in sustainability do most chemical or energy companies face on a regular basis? I am currently in my senior year for a Bachelor's in Chemical Engineering and I would like to keep a strong perspective on sustainability for the years to come. Thanks!

[MrFish16](#)

Balancing a focus on compliance with an understanding of the business risk. Compliance is required - that is non-negotiable. That is my personal bottom line and the bottom line of the vast majority of companies out there. Going above and beyond that, where can I, as an EH&S consultant, add real value while maintaining compliance? For example, instead of adding end-of-pipe emission controls to meet air quality standards, is there a process change or product substitution that will allow my client to meet the standards without the capital costs of emission controls? If so, that may well be a better way to go. -amn

With all the evidence of environmental change being ignored until it was too late, doesn't science move too slowly and have too little power to be able to have any serious impact on the climate crisis?

[ps4southofdc](#)

No. A clear and emphatic **no**. Check out (<http://www.shatteredsky.com/>) to see how science helped address the hole in the ozone layer. That's a model for us to consider. -amn

