NACAA
national association of clean air agencies

November 30, 2011

Attention Docket ID Number EPA-HQ-OAR-2010-0505
EPA Docket Center
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Sir/Madam:

Attached please find the comments of the National Association of Clean Air Agencies (NACAA) on the proposed New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants Reviews for the Oil and Natural Gas Sector published in the *Federal Register* on August 23, 2011 (76 *Federal Register* 52738).

Thank you for the opportunity to comment on this important proposal.

Sincerely,

S. William Becker

Attachment

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Comments of the National Association of Clean Air Agencies on EPA's Proposed New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants Reviews for the Oil and Natural Gas Sector

November 30, 2011

The National Association of Clean Air Agencies (NACAA) appreciates this opportunity to comment on the proposed New Source Performance Standards and National Emissions Standards for Hazardous Air Pollutants Reviews for the Oil and Natural Gas Sector, which were published in the *Federal Register* on August 23, 2011 (76 *Federal Register* 52738). NACAA is the national association of air pollution control agencies in 50 states and territories and over 165 metropolitan areas across the country.[1]

There are thousands of new and refractured wells completed each year, as well as approximately 500,000 existing gas wells, and proper control of air pollutant emissions from these wells is important. Some states and local governments have extensive experience with these sources and we are pleased to see that the proposed rules build upon these state and local regulations. Especially important is the proper control of well completions/recompletions; pneumatic devices; glycol dehydrators; crude oil, condensate and produced water tanks; and compressor stations. We support EPA's efforts to address these specific emissions points in the proposal and we offer the following suggestions for improving the proposed regulations. We also recommend that EPA work with states and localities to ensure that there are adequate resources to implement this program.

New Source Performance Standards

EPA is required under section 111 of the Clean Air Act to issue standards of performance for new stationary sources in source categories that the agency has determined cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare. These New Source Performance Standards (NSPS) – which must be reviewed and, as appropriate, revised at least every eight years – are to reflect "the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated."[2]

Criteria pollutant emissions from oil and gas production – including volatile organic compounds (VOCs), sulfur dioxide (SO_2), nitrogen oxides (NO_x) and particulate matter (PM) – have significant impacts on air quality and, therefore, public health, and visibility. EPA determined in 1979 that crude oil and natural gas production cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare. In 1985, the agency adopted two NSPS – one to address VOC emissions from leaking components at

[1] The views expressed in these comments do not necessarily represent the positions of every state and local air pollution control agency in the country.
[2] Clean Air Act section 111(a)(1).

onshore natural gas processing plants and the second to regulate SO_2 emissions from natural gas processing plants.

With respect to the current notice of proposed rulemaking, NACAA believes EPA has put forth a framework that could allow for a solid step forward regarding regulating criteria pollutant emissions from this source category, particularly from well completions at new hydraulically fractured natural gas wells and from existing wells that are fractured or refractured. We believe, however, that the rule could benefit from several clarifications and updated or additional requirements.

Definition of "Refracturing" – EPA must include a definition of "refracturing." EPA intends that its proposed NSPS apply to recompletion of a fractured or refractured existing gas well[3] because "[e]missions from recompletions of previously completed wells that are fractured or refractured to stimulate production or to begin production from a new production horizon are of similar magnitude and composition as emissions from completions of new wells that have been hydraulically fractured."[4] However, "refracturing" is not defined in either the preamble or the regulatory text. EPA must develop a definition of "refracturing" so that it is clear what operations are covered by this proposal.

Baseline for Determining Modifications – EPA must clarify the appropriate baseline for determining modifications. EPA's definition of "modification" provides that a modification means

> any physical change in, or change in the method of operation of, an affected facility which increases the amount of VOC or natural gas emitted into the atmosphere by that facility or which results in the emission of VOC or natural gas into the atmosphere not previously emitted. For the purposes of this subpart, each recompletion of a fractured or refractured existing gas well is considered to be a modification.[5]

However, EPA does not indicate the baseline a source should use in determining whether the recompletion or refracturing increases the amount of VOCs or natural gas emitted in the atmosphere. For example, suppose a well is refractured approximately every three years and the source uses a five-year baseline for determining existing emissions. In that case, a new refracturing might not cause any emission increases over the emissions baseline, since the baseline reflects the first refracturing. Thus the source would claim that the refractured well did not meet the definition of "modification." EPA should specify in the regulatory preamble that sources, in determining whether there were any increase in emissions, use as their baseline the emissions from the existing gas well occurring immediately *before* the recompletion or refracturing.

Waiver of Application of Capital Expenditure Requirements for Modifications – Waiver of the application of capital expenditure requirements to the recompletion of a fractured or refractured existing gas well would ensure that all recompletions or refracturings will qualify as a

[3] 76 *Federal Register* 52810 – definition of "modification."
[4] 76 *Federal Register* 52757.
[5] 76 *Federal Register* 52810.

modification, as EPA intended in its proposed rule. EPA's current regulations provide that an increase in the production rate of an existing facility, *if that increase can be accomplished without a capital expenditure on that facility*, shall not, by itself, be considered a modification.[6]

Capital expenditure is defined as

> an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.[7]

IRS Publication 534 provides a 10-percent annual asset guideline repair allowance percentage for the drilling of oil and gas wells.[8]

Thus, if a company spends less than 10 percent of the cost of a new well to recomplete a fractured or refracture an existing gas well, then that recompletion or refracturing will not be considered a modification and thus will be exempt from the NSPS. NACAA is concerned that, given the capital expenditures involved in constructing completely new wells, it is unlikely many recompletions or refracturings would require capital expenditures of that size (10 percent of the original capital expenditure amount), regardless of the projected emissions increases.[9]

Furthermore, the capital expenditure test makes the proposed rules difficult to implement and enforce as a practical matter. There are thousands of refracturing activities that occur each year – for this reason, the rules, and applicability thereof, need to be simple. Companies should not have to hire accountants and attorneys in order to determine which recompletions or refracturings are subject to the federal rules. Permitting authorities will not have access to internal company accounting information prior to the activity and enforcement authorities will not issue formal information requests unless they have reason to believe a violation has occurred. Therefore, EPA should waive the application of the capital expenditure requirement in 40 CFR section 60.14 (e)(1) to the recompletion of a fractured or refractured existing gas well so that the recompletion or refracturing can qualify as a modification.

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[6] 40 CFR §60.14 (e)(1).
[7] 40 CFR §60.2.
[8] IRS Publication 534, 12/'84 Revision, Asset Guideline Class 13.1.
[9] Costs for refractured or recompleted wells and costs of completed wells vary widely, depending on the type of well, location and what is included in considering "costs." Costs for a new well in the Marcellus shale area are estimated at between $800,000 and $1,300,000 for a vertical well and between $2.5 million and $4 million for a horizontal well, plus the costs for the well pad and infrastructure. However, costs for fractured wells in 2007 for one company averaged $92,000 per job, well under 10 percent of the cost of a new well (NYSERDA, Revised Draft SGEIS on the Oil, Gas and Solution Mining Regulatory Program [September 2011]). An analysis of activity in Wyoming found 304 recompletions across the state with an average cost of $172,616. (Wyoming Oil and Gas Economic Contribution Study, p. 28, available at http://www.sublettewyo.com/DocumentView.aspx?DID=290). In Alaska, on the other hand, completion costs are typically half of a new well. This difficulty emphasizes the need to choose a different test than capital expenditure if the goal is to exempt small wells with low emissions.

To exempt small projects from the requirements associated with a recompletion or refracturing, EPA should consider a size threshold – a certain number of barrels of oil or standard cubic feet of gas per year as an applicability threshold – rather than using the capital expenditure test. There is no reason to believe that the ratio of refracturing or recompletion costs to initial capital expenditures is any indicator of the potential environmental harm of the activity

Emissions Limit for Pneumatic Devices – EPA has proposed VOC standards to reduce emissions from gas-driven pneumatic devices. The proposed emissions limit for these devices at gas processing plants is zero, to reflect the emissions level achievable through the use of non-gas-driven pneumatic devices controllers. For individual pneumatic devices at other locations, EPA has proposed the use of low-bleed devices with a bleed limit of 6 standard cubic feet per hour (scfh) of natural gas. EPA's Natural Gas STAR Program defines a low-bleed pneumatic device as one that bleeds 6 scfh *or less*. We believe that EPA's proposal of a bleed limit of 6 scfh is outdated and should be lowered to reflect technology currently being sold.

Best Management Practices – Sections 60.5375(a)(1) and (2) of the proposed NSPS address the minimization of emissions from well drill site completions, stating that source owners or operators should "minimize the emissions associated with venting of hydrocarbon fluids and gas" and that "[a]ll salable gas must be routed to the gas gathering line as soon as practicable."[10] We believe this language is vague and subject to wide interpretation. Therefore, we recommend that the final regulation require facility owners to follow a Best Management Practice (BMP) plan. EPA should consider developing these BMPs utilizing practices employed and recommended by EPA's Natural Gas STAR[11] program for the reduction of emissions of hydrocarbons and hazardous air pollutants (HAPs) from well head completions and recompletions.

NO_x Emissions – EPA asserted in the proposal that other standards and regulatory programs will capture NO_x emissions from the oil and gas sector.[12] However, comprehensively addressing all emissions from this sector, including NO_x from a variety of sources within the sector, in one regulation would be consistent with EPA's stated desire to move toward multi-pollutant sector-based rules and, in the view of many, a more effective approach.[13] Because EPA did not include an NSPS for NO_x in the proposal, the addition of such a standard would likely require reproposal of the rule and delay promulgation and implementation of the final regulation. Therefore, we recommend that EPA move forward to finalize the current proposal, incorporating the

[10] 76 *Federal Register* 52800.

[11] See http://www.epa.gov/gasstar/index.html. EPA's Natural Gas STAR Program is a flexible, voluntary partnership that encourages oil and natural gas companies to adopt cost-effective technologies and practices that improve operational efficiency and reduce emissions of methane.

[12] 76 *Federal Register* 52756.

[13] EPA Clean Air Act Advisory Committee, Subcommittee on Economic Incentives and Regulatory Innovation, Multi-pollutant Sector Approach Work Group, *Moving Towards Multi-Air Pollutant Reduction Strategies in Major U.S. Industry Sectors: A Report to the U.S. Environmental Protection Agency's Clean Air Act Advisory Committee* (October 27, 2011), available at http://www.4cleanair.org/Documents/MovingTowardsMultiAirPollutantReductionStrategiesFinalWorkGroupReport102711.pdf.

recommendations included in these comments, and follow that with a reconsideration proposing an NSPS for NO_x, which would allow for a robust discussion of such a requirement.

Nonroad Engine Emissions – Given the large number of nonroad engines used for various purposes in the oil and gas sector, EPA should also include in the final rule provisions that would encourage the use of the cleanest (e.g., Tier 4 versus Tier 0) nonroad engines available.

NSPS for Methane Emissions – NACAA urges EPA to set an NSPS for methane emissions from the oil and natural gas industry since this would be an important mechanism for reducing emissions of methane, a powerful greenhouse gas as well as an ozone precursor. Methane, the primary constituent of natural gas, is 20 times more effective than carbon dioxide in trapping heat in the atmosphere in the long term[14] and 72 times as powerful as carbon dioxide over a 20-year timeframe.[15] The oil and natural gas sector accounts for nearly 40 percent of all U.S. methane emissions.[16] Furthermore, there are readily available cost-effective technologies for reducing methane emissions from this sector, as identified by EPA's Natural Gas STAR Program.[17] While we appreciate that EPA's proposal drives reductions in methane emissions as a result of controls on VOCs, we believe that standards that directly address methane would more effectively ensure that domestic natural gas production can increase without compromising the administration's long-term climate goals or the ability to meet ozone standards. In addition, a methane NSPS would also apply to *existing* sources, through section 111(d), thus expanding the realm of sources that achieve methane reductions and thus assisting states and localities in decreasing ozone levels. Since methane control measures at existing units would also cause VOC emissions to decrease, states and localities would reap VOC emissions reductions at existing sources, also assisting in states and localities' ozone reduction efforts.

Controlling methane emissions from this sector is also consistent with the recommendations recently issued by the Secretary of Energy Advisory Board's Shale Gas Production Subcommittee. The Subcommittee was charged with identifying measures that can be taken to reduce the environmental impact and improve the safety of shale gas production. The Subcommittee issued an interim report in August 2011 stating that methane emissions from shale gas drilling, production, gas processing, transmission and storage "are of particular concern" because of methane's potency as a greenhouse gas.[18] In the report, the Subcommittee

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[14] EPA, *Inventory of U.S. Greenhouse Gas Inventory and Sinks: 1990–2008* (hereinafter *EPA GHG Inventory 2008*), at p. ES-10, available at http://www.epa.gov/climatechange/emissions/downloads10/US-GHG-Inventory-2010_ExecutiveSummary.pdf.

[15] According to the Intergovernmental Panel on Climate Change (IPCC), over a 20-year timeframe methane is 72 times more powerful than carbon dioxide at trapping heat. *IPCC 2007 – The Physical Science Basis, Section 2.10.2*, available at http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html.

[16] EPA, "Proposed Amendments to Air Regulations for the Oil and Natural Gas Industry, Fact Sheet," p.1, available at http://epa.gov/airquality/oilandgas/pdfs/20110728factsheet.pdf. The total methane emissions from the oil and natural gas industry, excluding petroleum refineries, are 328.29 million metric tons of carbon dioxide equivalent ($MMtCO2_e$). *EPA GHG Inventory 2008* at p. ES-10.

[17] See http://www.epa.gov/gasstar/tools/recommended.html for a list of recommended technologies.

[18] Secretary of Energy Advisory Board Shale Gas Subcommittee, *90-Day Report*, (Aug. 18, 2011), at p. 16.

"supports adoption of emission standards for both new and existing sources for methane … resulting from natural gas exploration, production, transportation and distribution activities."[19]

In short, controlling methane emissions from this sector is critical given (1) projections of increased U.S. reliance on domestic natural gas resources for electricity generation,[20] (2) recent research that has questioned whether natural gas can deliver significant climate benefits over coal when lifecycle emissions are considered,[21] (3) the large near-term impacts that methane emissions have on the climate; and (4) the challenge faced by states and localities in meeting ever tighter ozone standards.

NACAA recognizes that adding an NSPS for methane would likely require a reproposal, which would delay implementation of important provisions for reducing emissions from this sector. Therefore, we recommend that EPA move forward to finalize the current proposal, incorporating the recommendations included in these comments, and follow that with a reconsideration proposing an NSPS for methane, which would allow for a robust discussion of such a requirement.

National Emission Standards for Hazardous Air Pollutants

Eight years after the establishment of the Maximum Achievable Control Technology (MACT) standard for a source category, EPA is required to assess the residual risk that remains from emissions from the source category, as well as examine whether advancements in control technology warrant additional requirements. NACAA supports EPA's decision to require additional emission reductions and monitoring requirements beyond the original MACT standard but believes that EPA's proposed Residual Risk and Technology Review for the Oil and Natural Gas source category needs to better assess and address the public health impacts of the oil and natural gas sector in order to ensure that local communities receive the required protection from unacceptable health risk. We encourage EPA to pay special attention to the needs of children and those communities that have had a history of disproportionate risk and who are exposed to multiple sources of air pollution. We offer the following comments about specific elements contained in the proposal.

Allowable Emissions – NACAA recommends that EPA consider potential or allowable emissions, rather than actual emissions, as much as possible in evaluating residual risk. Since facility emissions could increase over time for a variety of reasons, and with them the associated impacts, the use of potential or allowable emissions is more appropriate. We believe an analysis based on actual emissions from a single point in time could underestimate the residual risk from

[19] Id. In its final report, the Subcommittee criticized EPA's proposed rules for failing to directly control methane emissions. Secretary of Energy Advisory Board Shale Gas Subcommittee, *Second 90-Day Report*, (November 18, 2011), at p. 5, available at http://www.shalegas.energy.gov/resources/111011_90_day_report.pdf.

[20] The Energy Information Administration (EIA) projects that natural gas generation will grow from 23 percent in 2009 to 25 percent in 2035, but these projections do not take into account finalization of the Cross-State Air Pollution Rule and Utility MACT. EIA conducted some modeling taking into account these rules, leading to even more natural gas electricity generation. EIA, *Annual Energy Outlook 2011*, p. 51, available at http://www.eia.gov/forecasts/aeo/pdf/0383%282011%29.pdf.

[21] Tom Wigley, "Coal to Gas: the Influence of Methane Leakage," *Climatic Change*, Vol. 103, No. 3, pp. 601-608, available at http://www.springerlink.com/content/b430681263425q64/fulltext.pdf.

a source category. Further, the major source HAP thresholds are based on maximum potential-to-emit, as opposed to actual emissions, and air agencies issue permits based on potential emissions. Limiting the scope of a risk evaluation to actual emissions would be inconsistent with the applicability section of Part 63 rules. We were pleased to see that EPA used allowable emissions in the rulemaking[22] and encourage the agency to continue using allowable emissions in the future. Further, we recommend that EPA assess acute health risks based on allowable emissions as well.

Property-line Concentrations – In assessing the cancer risks related to the source category, EPA used long-term concentrations affecting the most highly exposed census block for each facility.[23] This analysis dilutes the effect of sources' emissions by estimating the impact at the centroid of the census block instead of at the property line or wherever the maximum exposed individual is. Census blocks can be large geographically, depending on the population density, so the maximum point of impact can be far from the centroid, including at or near the property line where people may live or work. Further, even if the area near the property line is not developed, over time homes and businesses could locate closer to the facility. While it is possible that population distribution is homogenous over a census block, this assumption is not necessarily accurate in considering the predicted impacts from the location of a typical wellhead. Using HEM-3, EPA can identify the maximum individual risk at any point in a census block that is within a 50-kilometer radius from the center of the modeled facility. Based on HEM-3's power and ability, NACAA suggests that EPA abandon its use of the predicted chronic exposures at the census block centroid as surrogates for the exposure concentrations for all people living in that block. Rather, we recommend that EPA use the truly maximum individual risk, irrespective of its location in the census block, in its section 112(f)(2) risk assessments.

Multipathway Exposure – EPA requested comments on the modeling approaches used in assessing risk.[24] NACAA commends EPA for recognizing the need to perform a multipathway exposure and risk modeling for those HAPs known to be persistent and bio-accumulative in the environment. However, unlike its use of allowable emissions for inhalation-based risk, EPA did not use allowable emissions for this analysis, which results in an underestimation of risk. In addition, after finding a facility that exceeded the threshold by six times, EPA did not complete its own multipathway risk analysis for this facility, nor explain how the most-exposed individual living near this facility would be protected. EPA also has not performed a multipathway analysis for all persistent or bioaccumulative HAPs, such as mercury. It is important for EPA to fully consider and address multipathway risk and also add this risk to the inhalation risk, when assessing the level of public health risk to which communities are exposed.

Environmental Justice – We commend EPA for considering environmental justice issues by expressing concern about the disproportionate impacts of HAP emissions on certain social, demographic and economic groups.[25] However, we question the agency's determination that the rule will not result in disproportionately high adverse health effects on environmental justice

[22] 76 *Federal Register* 52770.
[23] 76 *Federal Register* 52771.
[24] 76 *Federal Register* 52773.
[25] 76 *Federal Register* 52774.

communities.[26] We believe improvements are needed in the proposal to address environmental justice and encourage EPA to continue to consider these factors in developing the final rule and subsequent regulations.

NACAA recommends that EPA conduct the demographic analysis on individuals projected to experience a risk greater than 1-in-1-million and *also* on individuals living within five kilometers of the facility, regardless of projected risk, consistent with the approach used for the Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks source category.[27] The socio-economic analysis for this rule demonstrated a disproportionate impact in minority communities, based on the populations with greater than 1-in-1-million cancer risk within a 50 kilometer radius, but the analysis did not evaluate potential disparities within five kilometers for cancer risk at maximum allowable emission levels or for the acute benzene hazard quotient. This type of analysis is especially important in instances where the oil and natural gas facility is located in a minority and low-income community. Unfortunately, in the proposal, EPA *only* evaluated the risk to the population within a 50-kilometer radius, which could dilute the results by including populations not in the demographic groups most at risk. This is especially the case when the source is located in or next to a minority or low-income population. Therefore, we recommend an analysis at the five-kilometer distance be conducted to assess facility impacts to nearby environmental justice communities. NACAA also recommends that the rule writers work with the EPA Office of Environmental Justice to develop criteria and specific guidance on how to interpret and apply the outcome of these types of analyses in the rulemaking process.

Additionally, poverty statistics used to identify low-income communities should be updated to include 2010 census data, rather than relying on older information. The number of people in poverty in 2010 is the largest number in the 52 years for which poverty estimates have been published.[28]

Acute Exposure – We have expressed our concerns in the past with EPA's use of Acute Exposure Guideline Levels (AEGLs) or Emergency Response Planning Guidelines (ERPGs) values to address acute exposures in the residual risk assessments. These limits were developed for accident release emergency planning and are not appropriate for assessing daily human exposure scenarios. In the December 2002 EPA document, "A Review of the Reference Dose and Reference Concentration Processes," EPA stated that the primary purpose of the AEGL program is to develop guidelines for once-in-a-lifetime short-term exposures to airborne concentrations of acutely toxic chemicals. They are not meant to evaluate the acute impacts from routine emissions that occur over the life of a facility. Unlike the reference concentrations (RfCs) for chronic exposures, the AEGLs and ERPGs do not include adequate safety and uncertainty factors and cannot be relied upon to protect the public from the adverse effects of exposure to toxic air pollutants. The use of AEGLs or ERPGs in residual risk assessments is not appropriate and does not ensure that public health is adequately protected from the acute impacts of HAP exposure. We are gratified to see that EPA has increased its reliance on the California

[26] 76 *Federal Register* 52797.
[27] 76 *Federal Register* 65089.
[28] US Census 2011. *Income, Poverty, and Health Insurance Coverage in the United States: 2010.* Available at http://www.census.gov/prod/2011pubs/p60-239.pdf.

Reference Exposure Levels (RELs) to address acute exposures in the residual risk assessments and we continue to urge EPA to use the RELs for these assessments.

In the proposal, EPA considered how to address a situation in which acute occupational ceiling guideline levels are lower than the AEGL, which EPA would have used to calculate the hazard index for a pollutant.[29] Since the AEGL is expected to be more protective than the workplace standards, which are intended for working-age adults rather than the general population, and NACAA does not believe it is appropriate to use the AEGL anyway, we recommend that EPA not rely on the AEGL, especially in cases where it exceeds the acute occupational guidelines.

Acceptable Risks – NACAA agrees with EPA's determination that the current lifetime cancer risk the agency found (up to 400-in-1-million, based on allowable emissions) for the Oil and Natural Gas Production category is unacceptable. NACAA also supports EPA's proposal to reduce cancer risk for both source categories by removing the alternative compliance option for glycol dehydrators. However, the association recommends EPA analyze whether it is necessary to further reduce cancer risk from both this category and the Natural Gas Transmission and Storage category (which also has a high level of cancer risk) in order to reach an acceptable level of risk and to provide the required "ample margin of safety to protect public health." Because of the gaps in EPA's analysis and the use of emission estimates, the agency should consider limiting HAP emissions more than proposed, in order to make up for these issues and ensure protection for local communities near these sources. Additionally, EPA's analysis shows a high level of acute health risk for both source categories in this sector and it is unclear why EPA is not proposing to reduce those health risks at all.

Alternative Compliance Option for Area Source Dehydrators – EPA proposed to eliminate the alternative compliance option for glycol dehydrators under the Oil and Natural Gas Production NESHAP (subpart HH) for major sources, stating that, "the level of emissions allowed by the alternative compliance option for the glycol dehydrator MACT (i.e., the option of reducing benzene emissions to less than 0.9 Mg/yr in lieu of the MACT standard of 95-percent control) reflects an unacceptable level of risk. We are, therefore, proposing to eliminate the 0.9 Mg/yr alternative compliance option."[30] We agree with EPA's position because of the cancer risks associated with benzene emissions. We note, however, for the area source applicability level, EPA has not proposed to eliminate the emission applicability cutoff of 0.9 Mg/yr for dehydrators at this time. Since those area sources could be in populated areas, posing unacceptable risks to the public from benzene emissions, we recommend that EPA institute the same applicability and compliance options as major sources.

Under the General Requirements section in Subpart HH, section 63.764, the regulation used the definitions for Urban Area and Urban Cluster as a mechanism for determining the applicability requirements for area sources. EPA segregated sources located near or in urban areas to adhere to one set of compliance requirements and those not meeting the urban area definition to follow another set of compliance requirements. This approach is difficult for the

[29] 76 *Federal Register* 52773.
[30] 76 *Federal Register* 52747.

regulated community and the public to understand. We propose EPA institute the same applicability and compliance options for area sources as major sources.

We recommend the following approach. EPA has already proposed to regulate small and large dehydrators for major sources; we believe this approach also should be approved for area sources. The residual risk analysis required under section 112(f) performed as part the Risk and Technology Review (RTR) shows that the benzene emissions from dehydrators can have significant offsite benzene concentrations with the current stack configurations. The maximum inhalation cancer risk for actual emissions of benzene was found to be 40 in a million and between 100 and 400 in a million when using allowable emissions for some locations. The high inhalation cancer risks are attributed to the 0.9 Mg/yr of benzene allowable. Area sources have the potential to emit up to 0.9 Mg and are capable of producing similar offsite impacts as major sources.

Updated Technology Requirements – NACAA supports EPA's recognition of the need to control emissions from previously uncontrolled emission points.[31] However, EPA should satisfy section 112(d)(2)-(3) of the Clean Air Act and calculate the MACT limit based on the best-performing sources that currently exist. Additionally, we note that EPA discovered more uncontrolled emission points than it is planning to control. We recommend that EPA address all of the uncontrolled HAP emission points of which it is aware.[32]

Finally, it is unclear why EPA is not updating the MACT standard under section 112(d)(6) based on the fact that allowable emissions are 50 times as high as what EPA believes may actually be occurring in some instances.[33] Based on that data alone, EPA should review and consider updating the MACT to reflect the greater level of emissions reductions that sources have actually achieved.

Leak Detection and Repair – EPA reviewed options for improving leak detection and repair (LDAR) requirements and ultimately settled on proposing compliance with the subpart VVa equipment leak requirements both for VOCs[34] and HAPs.[35] Subpart VVa lowers the leak definition threshold from 10,000 parts per million (ppm) to 500 ppm. However, EPA failed to consider requiring a leak detection test that would record total hydrocarbon concentrations. Since natural gas is composed mostly of methane, EPA should consider also requiring the use of leak detection equipment that can detect methane leaks (such as a flame ionization detector calibrated to methane). This would ensure that leaks – whether of HAPs like benzene, criteria pollutants such as sulfur dioxide, or hydrocarbons – would be quickly and accurately detected.

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[31] 76 *Federal Register* 52746.

[32] For example, *Draft Risk Assessment for the Oil and Gas Production and Natural Gas Transmission and Storage Source Categories* (pages 24 and 30).

[33] 76 *Federal Register* 52778.

[34] 76 *Federal Register* 52755.

[35] 76 *Federal Register* 52780. EPA notes that it did not set up an LDAR program just for HAPs because an "LDAR program to control HAP would involve similar costs for equipment, labor, etc., to those considered in the NSPS assessment, but since there is approximately 20 times less HAP than VOC present in material handled in regulated equipment, the cost effectiveness to control HAP would be approximately 20 times greater (*i.e.,* $100,000/Mg) for HAP," which EPA did not believe was reasonable. Id.