Proposed Revisions to EPA's Safer Communities by Chemical Accident Prevention (SCCAP) Risk Management Program (RMP) Rule (8/18/22)

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Introduction

The EPA issued a pre-publication version of a new RMP Rule on August 8, 2022. This new proposed rule is named the Safer Communities by Chemical Accident Prevention (SCCAP) RMP Rule. This is the latest revision or proposed revision of the RMP Rule among several that have occurred in the last 5 years. To help avoid confusion, a brief summary of these various final and proposed RMP Rules, along with the names they have assigned by EPA in the new proposed SCCAP RMP Rule is as follows:

- The original RMP Rule, adopted in 1996 and became effective in 1999, named the "1996 RMP Rule."
- The revised and final RMP Rule, adopted on January 13, 2017, named the "2017 Amendments RMP Rule."
- The revised and final RMP Rule, adopted on December 19, 2019, named the "2019 Reconsideration RMP Rule."
- The latest proposed RMP Rule, pre-published on August 8, 2022, named the "Safer Communities by Chemical Accident Prevention RMP Rule" or "SCCAP RMP Rule".

Between these various rule issuances there were numerous delays, stays, and court challenges (some court rulings have not been finalized yet). If adopted, the SCCPA RMP Rule will essentially revert back to the contents of the 2017 Amendments Rule, with a few differences. The main impetus for issuing the SCCAP RMP Rule is the president's executive order EO 13990, entitled "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis." A summary of the provisions of the SCCPA RMP Rule is provided below, along with AcuTech's explanation of the projected impacts of these proposed changes on RMP programs (and PSM programs where it is anticipated that both process safety regulatory programs will be affected). *Note that the AcuTech explanation is based on what EPA has published in its August 8, 2022 pre-publication rule and its projected impacts. As the rulemaking process unfolds for this regulation the actual wording of the draft rule and then the final rule, following public comment*

and hearings, is likely to change. The explanation of how the regulation will impact industry PSM/RMP programs as the rulemaking process evolves will be published in subsequent editions of this white paper.

The RMP Rule is administered by the EPA. However, states and other governmental entities can apply to federal EPA for implementing agency status. The RMP implementing agency is the governmental agency responsible for actually enforcing the RMP Rule in each state. There are currently 9 states and 5 counties in the U.S. that have been granted implementing agency status by EPA: New Jersey, Delaware, Mississippi, Florida, Georgia, North Dakota, North Carolina, Ohio, South Carolina, Allegheny County, PA (Pittsburgh); Jefferson County, KY (Louisville); Forsyth County, NC (Winston-Salem); Mecklenburg County, NC (Charlotte); and Buncombe County, NC (Asheville). In the remainder of the U.S. the implementing agency is federal EPA.

Proposed Revisions to RMP Elements in the SCCAP RMP Rule

Natural Hazards

EPA is proposing to require hazard evaluations for Program 2 and Program 3, i.e., hazard reviews for Program 2 processes and process hazard analyses (PHA) for Program 3 processes, to explicitly address external events such as natural hazards, including those caused by climate change or other triggering events that could lead to an accidental release. EPA is not requiring that facilities conduct research or interpret climate change research on their own in order to include natural events in their hazard reviews/PHAs. Neither did EPA specify which natural events are relevant for any facility, region, or the nation as a whole. This is left to each RMP-covered facility to determine. This change is based on EPA's examination of the causes of process safety events that were caused by or had a contribution from natural events in recent years. Although they can be caused naturally or by human activity, EPA considers wildfires to be a natural event in this context. EPA did not specify any safeguards or physical changes that should be made if hazard reviews/PHAs reveal that a facility is vulnerable to natural events.

AcuTech Explanation:

While adding a specific type of cause event to hazard reviews/PHAs is certainly a new practice for EPA in the RMP Rule (the RMP Rule is still categorized as a performance-based regulation), the consideration of natural events in a PHA is not a new practice for industry. Most, and probably a majority, of facilities in the PSM/RMP community routinely include external events (such as weather-induced or naturally occurring events), in their PHAs by using checklists. These checklists are used in PHAs in much the same manner as human factors and facility siting checklists where a straight-forward Yes/No analysis is conducted with recommendations as appropriate to reduce the risk from these types of events. CCPS has included external events checklists in their PHA revalidation guidelines book, and many operating and consulting companies in the PSM/RMP community have similar checklists that they routinely employ during their PHAs. Some facilities choose to treat the checklist items as causes for HAZOP or What-If analysis and complete the analysis for each relevant external event in the PHA worksheets in a

global or general node in the study. These methods of analysis for external events usually add one PHA session or less to a typical PHA. Either practice seems to be acceptable with regulators thus far. Since EPA did not specify a format or type of hazard analysis to use for these events, these previous practices are likely to be acceptable if this change is adopted.

Many facilities have gravitated towards the use of LOPA in the PHA processes in recent years. These facilities have generally refrained from including external events in their LOPAs because, unlike equipment failures and human errors, they have no control over the likelihood of external events and there are no independent protection layers (IPL) that are reasonable to credit for the prevention of external events. Industry guidance does not address IPL credits for external events either.

Also, EPA did not specify what natural events to include in the analysis so each facility will have to determine which events are relevant for their site and the region where it is located, but the facilities that have employed the checklist and worksheet approaches to external events in their PHAs have extensive experience in determining which events are relevant based on their location and the event history in their region. Of course, the recommendations that are generated by either analysis approach will need to be resolved like any other PHA recommendation. Therefore, the inclusion of natural events in Program 2 and 3 hazard reviews and PHAs is not expected to impose a large burden on the RMP programs of covered facilities, although recommendations that involve hardware or other physical changes always have more significant implementation impacts. For example, if the facility where tornados are more common does currently have a way to monitor weather reports and issue a warning to site personnel, a PHA team may recommend such a capability. This would require a project to evaluate, design, and install such a system, as well as assigning personnel to operate it.

Loss of Power

EPA is proposing to further emphasize the loss of power explicitly in the hazards evaluated in hazard reviews and PHAs for Program 2 and Program 3 RMP-regulated processes. EPA is also proposing to include emphasizing that hazard reviews and PHAs explicitly address standby or emergency power systems. EPA expects facilities to evaluate whether power loss represents a process safety hazard to their processes and, if so, implement appropriate controls to prevent or reduce that hazard. EPA is not including any explicit requirements to provide emergency power systems. However, EPA is proposing to require air pollution control or monitoring equipment associated with prevention and detection of accidental releases from RMP-regulated processes to have standby or backup power to ensure compliance with the intent of the Rule.

AcuTech Explanation:

Like natural events, industry routinely examines the loss of power in hazard reviews and PHAs. Also, like natural events, global loss of power to a facility (as well as global loss of other utilities) is routinely studied in a global or general node in a PHA by using checklists. CCPS's external events checklists in their PHA revalidation guidelines book, and many operating and consulting

companies in the PSM/RMP community have similar checklists that they routinely employ during PHAs. All of these checklists include loss of utility systems that are important to process safety, including the loss of electrical power.

The analysis of the loss of power is usually performed in industry PHAs in two ways: 1) in each node where the loss of power can cause a PHA deviation, e.g., loss of power causing a pump to stop running results in the HAZOP deviation loss of flow, and 2) most PHAs in industry include a global or general node where the loss of each key utility is examined on a whole-facility basis. This dual treatment in most PHAs is used because the consequences of loss of power to the entire facility simultaneously can be different than the loss of power to a given piece of equipment.

It is important to note that EPA is not requiring backup or emergency power be provided for the covered processes as a whole, although many facilities already have such emergency power capability for specified electrical loads. However, EPA is requiring the control and monitoring equipment that would detect or prevent releases of RMP chemicals be provided with emergency power. Since most of this equipment is instrumentation or controls, the power supplies for this equipment is already backed-up by emergency generators or by battery supplied uninterruptable power supplies (UPS) devoted to the control systems. Modern distributed control systems (DCS) are equipped with UPSs as part of their design. Therefore, the effects on Program 2 and 3 facility hazard review and PHA programs should be minimal. If an RMP-covered has no emergency/backup power at all, provisions for providing it to detection and control equipment associated with prevention and detection of accidental releases will have to be made.

Stationary Source Siting

Because severe process safety incidents over the years have resulted in both onsite and offsite consequences, EPA is choosing to make more explicit what is required to be addressed in a stationary source siting evaluation. Rather than propose additional requirements, EPA is expounding on the current regulatory text to ensure that siting evaluations properly account for hazards resulting from the location of processes, equipment, building, and proximate facilities, and their effects on the surrounding community. EPA is proposing to amend the regulatory text for Program 2 and Program 3 hazard reviews and PHAs, respectively, to define stationary source siting evaluation as inclusive of the placement of processes, equipment, buildings, and hazards posed by proximate facilities, and accidental release consequences posed by proximity to the public and public receptors. The proposed amendments would make more explicit the requirement that hazard evaluations for processes need to address these matters in the siting evaluation.

AcuTech Explanation:

Both the PSM Standard and the 1996 RMP Rule required facility/stationary source siting as part of the PHA element. This analysis was typically performed qualitatively using checklists. To satisfy the PSM Standard and 1996 RMP Rule, the focus was on occupied buildings and locations onsite and public receptors offsite to address this requirement in each regulation respectively. Following the BP Texas City incident in 2005 most facilities in the PSM/RMP community started

performing their facility/stationary source siting analysis quantitatively. This was not in response to any regulatory changes in the PSM Standard or RMP Rule, but because these facilities needed to have more precise numerical calculations of the safe distances within their facilities where occupied structures could be located, particularly project trailers and other temporary structures. A by-product of the calculations of these distances was that they showed if any process safety incidents could also affect public receptors beyond the facility boundary.

Industry RAGAGEPs were revised to offer both qualitative and quantitative methods of determining the effects of process safety events on permanent structures (API 752), temporary structures (API 753), and tents (API 756). Most facilities have chosen to use quantitative methods so that they can carefully site temporary structures onsite during turnarounds and know which of their permanent structures required structural upgrading to be more robust or where the people occupying those structures needed to be moved to safer distances. This analytical activity, and the subsequent projects to build and upgrade occupied buildings has gone on for over 15 years. Therefore, the effects of these proposed changes to the stationary source siting language in the SCCAP RMP Rule should have relatively little effect on the analytical portion of facility facility/stationary source siting programs.

What is not clear from the SCCPA RMP Rule proposal is what a facility will be required to do, if anything, if the analysis reveals possible damage to occupied buildings offsite such as residences or businesses and any subsequent health effects offsite. Presumably, knowing that an event can cause offsite effects will create an impetus to respond to those results in some way. However, there is a history in the RMP Rule of calculating possible offsite effects of certain process safety events and simply understanding that the potential exists for offsite effects with no other action required on the part of the facility or the public. The original 1996 RMP Rule and all subsequent version of the RMP Rule have required both worst case scenario (WCS) and alternative release scenario (ARS) calculations to determine the distances of concern of releases involving RMP covered materials. This information has not, to date, resulted in any requirement from EPA nor any other government agency to reduce the risks from the events that generate potential offsite effects. There is nothing in the SCCAP RMP proposal that would change that. Also left unaddressed is the reconciliation of the WCS and ARS analyses required in the hazard assessment Subpart of the SCCAP RMP Rule, which remains the same as the 1996 RMP Rule.

Also, for the first time, EPA is proposing to use the WCS data in some way beyond simply collecting and tabulating it. In the SCCAP RMP Rule EPA is proposing to require Safer Technologies and Alternatives Analysis (STAA) for facilities with certain offsite effects. See the STAA section of this white paper.

Hazard Evaluation Recommendation Information Availability

EPA is proposing that recommendations resulting from hazard evaluations be included in the facility's risk management plan submitted periodically. Specifically, facilities would be required to implement recommendations or list in their risk management plans the recommendations from their natural hazard, loss of power, and siting evaluations that were not adopted and the

justification for those decisions. Regarding the requirement to provide justification for not implementing recommendations, EPA is proposing to allow facilities to choose from pre-selected categories in their submitted risk management plans, although these categories were not described in the SCCAP proposal. EPA is also considering using the OSHA PHA/incident investigation recommendation rejection criteria published in the Compliance Directive for the PSM Standard.

AcuTech Explanation:

The requirement to include the recommendations from their natural hazard, loss of power, and siting evaluations that were not adopted and the justification for those decisions is new. The RMP Rule has never required this level of detail regarding PHA recommendations and their status be reported to EPA. EPA justifies including this provision in the SCCAP RMP Rule as part of the overall RMP related information availability to the public, local emergency planning committees (LEPC), and tribal emergency planning committees (TEPC) (see the Information Availability section in this white paper). Although the work needed to comply with this provision if it is adopted will be minimal, what is not addressed in the proposed rule is what would happen if EPA, the public, or the LEPC/TEPC disagrees with the rejection of a recommendation. Also, it is not clear that owners/operators will be able to include explanatory information for the rejection or simply indicate the rejection criterion from a drop-down menu in an online form.

The use of OSHA's recommendation rejection criteria will offer some consistency with long standing practice in PSM. The recommendation rejection criteria were published in the PSM CPL document in 1994, and most of the PSM/RMP community should already be familiar with these criteria and how to interpret and use them. Many facilities have embedded these criteria in their PHA/PSM action item management procedures and practices. For clarity, these criteria are repeated as follows:

> *OSHA considers an employer to have "resolved" the team's findings and recommendations when the employer either has adopted the recommendations or has justifiably declined to do so. Where a recommendation is rejected, the employer must communicate this to the team, and expeditiously resolve any subsequent recommendations of the team. An employer can justifiably decline to adopt a recommendation where the employer can document, in writing and based upon adequate evidence, that one or more of the following conditions is true:*
>
> 1. *The analysis upon which the recommendation is based contains material factual errors.*
> 2. *The recommendation is not necessary to protect the health and safety of the employer's own employees, or the employees of contractors.*
> 3. *An alternative measure would provide a sufficient level of protection.*
> 4. *The recommendation is infeasible.*

EPA will likely change the language of these criteria to reflect RMP vs. PSM usage, e.g., "public" instead of "employees," "owner/operator" instead of "employer'", etc. Also, the interpretation and use of these criteria varies in industry, but most PSM/RMP facilities understand that the last criterion, i.e., feasibility, does not include only cost considerations.

Safer Technologies and Alternatives Analysis (STAA)

Under the proposed SCCAP RMP Rule, sites in NAICS codes 324 (petroleum and coal products manufacturing), and 325 (chemical manufacturing) with Program 3 processes that are located within 1 mile of another RMP-regulated facility with these same processes (classified in NAICS 324 and 325) would be required to conduct a Safer Technology Alternatives Analysis (STAA) for each process. EPA is also proposing that all facilities with petroleum and coal products processes (in NAICS 324) using hydrofluoric acid (HF) in an alkylation unit (approximately 45 facilities) consider safer alternatives to HF alkylation, regardless of proximity to another NAICS 324- or 325-regulated facility.

Owners and operators of facilities with Program 3 processes covered under this provision would have to consider the application of the following safer technology measures, in the following order: inherently safer technology (IST) or inherently safer design (ISD), passive safeguards, active safeguards, and procedural safeguards.

EPA is not requiring facilities to implement identified inherent safety measures. Rather, EPA is requiring owners and operators to include an evaluation, including the results of the STAA analysis, as part of the PHA, and, to document the feasibility of inherent safety measures based on more than cost alone. EPA is proposing that a facility's STAA team include, and document the inclusion of, one member who works in the process and has expertise in the process being evaluated. EPA is also proposing to include a more comprehensive practicability assessment, in addition to the STAA evaluation requirements as part of the PHA. As part of this analysis, owners and operators would be required to identify, evaluate, and document the practicability of implementing inherent safety measures, including documenting the practicability of publicly available safer alternatives.

EPA is proposing to reinstate the provisions from the 2017 Amendments RMP Rule to report in the submitted risk management plans whether the current PHA addresses the STAA requirement, whether any IST/ISD measure was implemented, and if any IST/ISD measure was implemented, to identify the measure and its technology category (i.e., substitution, moderation, minimization, simplification).

EPA is proposing to define "practicability" as the capability of IST/ISD measures being successfully accomplished within a reasonable time, accounting for technological, environmental, legal, social, and economic factors. EPA clarifies in this definition that environmental factors would include consideration of potential transferred risks for new risk reduction measures. EPA is not requiring owners or operators to implement identified IST/ISD measures. Although an owner or operator may choose not to implement a safer technology or design identified on account of its cost, EPA is proposing that the evaluation of practicability be first based on technological, environmental, legal, and social factors, with economic considerations evaluated last. EPA proposes that the practicability assessment be documented with the technological, environmental, legal, social and economic factors outlined, along with any methods or processes used to determine practicability.

These STAA proposals are similar to but not identical to the STAA provisions included in the 2017 Amendments RMP Rule (and removed in the 2019 Reconsideration RMP Rule).

AcuTech Explanation:

STAA is another term for an Inherently Safety Technology (IST) analysis. This has been a mandatory requirement in two jurisdictions in the US for over ten years: New Jersey, which has a state process safety regulation and is the implementing agency for the RMP Rule in that state, and Contra Costa County, CA (CCC). Both of these jurisdictions have requirements for IST reviews. These reviews are generally performed in accordance with guidance published by CCPS (Inherently Safer Chemical Processes – A Life Cycle Approach, 3rd Ed.) and have resulted in improvements to existing processes but have not mandated changes to processes involving the substitution of chemicals or the moderation of process conditions. Most of the changes identified by site-performed IST reviews thus far have resulted in improved tolerance for human error (referred to as Simplification in the CCPS IST book), or minimization of chemical inventories where site operations can accommodate this. EPA has proposed to perform the STAA evaluation as part of PHAs process and limit the requirement to only selected RMP-covered facilities which are the larger and more complex sites within the RMP community, i.e., sites with Program 3 processes in the petroleum refining and chemical manufacturing sectors. This is basically what EPA included in the 2017 Amendments Rule. However, in the SCCAP RMP Rule, EPA has refined this to require STAA evaluations to Program 3 processes that are located within 1 mile of another RMP-regulated facility with these same processes, and also to refineries with HF alkylation units regardless of distance. EPA chose the 1 mile distance criteria based on accident history and the increased potential offsite risk posed by clusters of refineries and chemical plants in close proximity, and also by the potential risk posed by large inventories of liquid HF acid used in some refinery alkylation units.

The terms "feasibility" and "practicability" are key to determining when a facility can or should implement an IST measure or when it declines to do so. EPA's definition of "feasibility" (not written in the proposed SCCAP RMP Rule) of inherent safety measures would be based on more than the cost of the measures alone. EPA is also proposing to include a more comprehensive practicability assessment, in addition to the STAA evaluation requirements as part of the PHA. As part of this analysis, owners and operators would be required to identify, evaluate, and document the practicability of implementing inherent safety measures, including documenting the practicability of publicly available safer alternatives. EPA is proposing to define "practicability" as the capability of being successfully accomplished within a reasonable time, accounting for technological, environmental, legal, social, and economic factors, including consideration of potential transferred risks for new risk reduction measures. These are the same criteria used by the State of New Jersey in implementing their IST requirements in their state Toxic Catastrophe Prevention ACT (TCPA) regulations in 2008. As part of the evaluation of the environmental practicability of possible IST/ISD measures, EPA will allow the consideration of risk transfer. For example, a facility may decide to minimize the inventory of RMP chemicals onsite by procedurally reducing the allowed inventory in site storage of these substances. This will reduce the risk of

release at the site itself, however, it may require more frequent deliveries of the RMP substances in order to achieve the same production rates. These more frequent deliveries will transfer the risk of release from the fixed RMP site to the transportation sector, where more frequent truck, rail, or other modes of delivery will be required. An argument can be made that more trucks and rail cars travelling on the region's highways and railways as opposed to a single inventory of a substance in a fixed site storage tank may actually increase the risk overall.

The requirement to evaluate STAA/IST for certain RMP-covered facilities will add time to the PHA process that currently does not have to be spent (except in NJ and Contra Costa County, CA). Additionally, the evaluation of publicly available IST measures and justifying the use or non-use of them will require additional time and expertise. Most facilities have engineering and operations staff capable of performing PHAs for their facilities, but they do not always have the research and basic science/engineering staff necessary to fully evaluate the state-of-the-art in the process technology in use in their plants. Often, this technology is licensed from a third party and the evolution of this technology may be something that facilities, or even their parent companies (if they have one) are not completely aware of. This may make an STAA evaluation difficult to perform without enlisting the participation of these third party process licensors, university researchers, or other external subject matter experts. Some of these outside experts may be willing to participate in an STAA evaluation for a facility, and some may not be willing to do so. The employee participation requirement in the proposed STAA requirement to have someone who works in the process and is knowledgeable about it will have minimal effect on RMP programs as operators, maintenance personnel, and other hourly-paid personnel already routinely participate in PHAs.

While the criteria EPA is offering to clarify the term "practicable" will help determine what IST measures are candidates for evaluation and their priorities, there is still a long standing and wide difference of opinion in what to do with this information and what IST measures should be mandatory for implementation. The resolution of these differences will be a difficult and lengthy process between the government and industry.

In addition to problems with trying to regulate IST, it is potentially a difficult technical issue for many companies, particularly for those with single products, or those where there is only one reaction or type of feed material which can yield the product desired. Changes to processes to incorporate different chemicals (i.e., "substitution"), or different processing conditions (i.e., "moderation") would require substantial, and in some cases wholesale re-design and reconstruction of facilities and processes, even if they are possible. For refineries that use HF as a catalyst in their alkylation units, increasing pressure to change to another catalyst (e.g., sulfuric acid) or different forms of HF acid (e.g., a solid bed HF process) have been building for some time and the SCCAP RMP Rule increases that pressure still more. For these reasons, STAA could represent a real dilemma for some facilities/companies in the PSM/RMP community.

One other important point to understand about the STAA proposal in the SCCAP RMP Rule – this is the first time since the original 1996 RMP Rule that EPA is proposing a follow-on use of the WCS results of RMP-covered facilities. That is, the applicability of STAA proposal is based, in

part, on the distance between RMP-covered facilities. The distance chosen to trigger the STAA requirement is 1 mile, which is based on an analysis of the WCS data submitted in risk management plans by industry. Although the STAA applicability is not based on comparing the individual WCS results of a given stationary source to a fixed criterion, it is the first time that EPA proposes to use the WCS results as the basis for other RMP provisions. Previously, the WCS (and ARS) results were merely collected and filed in EPA's data base and have not been used for any other regulatory purposes.

Incident Investigation

The proposed SCCAP RMP Rule would require sites to conduct a root cause analysis using a recognized method as part of an incident investigation following a RMP reportable accident or an incident that could reasonably have resulted in a RMP reportable accident (i.e., "near miss"). The proposed SCCAP RMP Rule also requires the root cause analysis to include specific elements, requires the use of a recognized investigation method, and also requires that investigations be completed within 12 months. For very complex incident investigations that cannot be completed within 12 months, EPA is allowing an extension of time if the implementing agency (i.e., EPA and delegated state/local authorities) approves the extension in writing.

AcuTech Explanation: The original 1996 RMP Rule, as well as OSHA's PSM Standard, require that incident investigations identify the "causal factors" for the incident or near miss but do not explicitly require the root causes be identified. Root cause analysis (RCA) is a very common component of current formal incident investigation processes and procedures used in industry. Root causes, in the context of incident investigation, are the basic, systemic reasons why an undesired event occurred. The root causes cannot be broken down into further causes and they can usually be traced back to failures in the underlying management systems. Process safety incidents usually have more than one root cause. There are various different types of RCA methods currently available, including internal corporate methods, those published in the literature, as well as commercial methods, and some with accompanying software. These RCA methods range from the very simple to complex. These analyses, particularly the more complex methods, generally require someone trained or experienced in the technique to facilitate the analysis. The SCCAP RMP Rule does not mandate the use of a specific RCA method(s), nor does it describe the characteristics of the method to be used. It is likely that a well-known, widely used practice will be acceptable to RMP implementing agency. *RMP sites using more obscure methods might have to show equivalency with the more well-known methods. As stated above, RCA is a common industry practice and most RMP sites or their parent companies are likely to have an RCA method in place that they have been using for years. Therefore, the effect of this proposed change to the RMP Rule is minimal.*

The requirement for an RCA is basically what EPA included in the incident investigation element of the 2017 Amendments Rule. In the SCCAP RMP Rule EPA is also proposing a 12 month time limit on the performance of RCAs, with an extension possible for very complex investigations. This should not pose a large burden, as the majority of RCAs and the issuance of incident investigation reports occurs well within 12 months for most incidents. Facilities will have to be aware of the

time limit and schedule the RCA and other investigation activities more carefully if this proposed limit is adopted.

Compliance Audits

The 1996 RMP Rule required sites with Program 2 and Program 3 processes to conduct a compliance audit of the RMP prevention program at least once every 3 years. This is identical to the audit requirement in the PSM Standard. Because the Program 3 RMP prevention program and the PSM Standard requirements have been identical since the 1996 RMP Rule was adopted it is very common practice for facilities covered by both regulations to conduct these two audits concurrently.

The 2017 Amendments RMP Rule proposed to require RMP covered sites to contract with an independent and qualified third party to conduct the next scheduled compliance audit following a RMP reportable accident or within 12 months, whichever occurs sooner. This requirement for third party RMP audits was rescinded by the 2019 Reconsideration RMP Rule. The SCCAP RMP Rule modifies this to require a third party audit if two RMP reportable incidents within a 5 year period occur. Reportable incidents are those that meet the criteria for inclusion in the RMP five year accident history. For refineries and chemical manufacturing plants (NAICS code 324 and 325) with Program 3 processes EPA is proposing to require a third-party audit if they have had one RMP-reportable accident within a 5 year period occur and are located within a 1-mile radius of another RMP regulated NAICS code 324 and 325 facility. Third party compliance audits would also be required after an implementing agency determines that certain conditions exist that could lead to an accidental release (including the previous auditors not meeting the competency or independence/impartiality provisions). The decision by the implementing agency can be appealed by the owner/operator. Third party audits are required to be completed within 12 months of the event(s) that trigger the requirement to use third party auditors.

The provisions governing the qualifications and independence for the third party auditors includes:

- *Competency requirements:* The auditor/audit team shall be knowledgeable with the requirements of the audit element of the SCCAP RMP Rule, experienced with the stationary source type and processes being audited and the applicable recognized and generally accepted good engineering practices, and trained and/or certified in proper auditing techniques.
- *Independence and impartiality requirements:* The auditor/audit team shall act impartially, receive no financial benefit from the outcome of the audit, apart from payment for the auditing services. Retired employees who otherwise satisfy the third-party auditor independence criteria may qualify as independent if their sole continuing financial attachment to the owner or operator are employer-financed or managed retirement and/or health plans. The audit team leader must be independent but the remainder of the audit team can consist of either third party audit firm employees or personnel from the facility being audited. Also, all third-party personnel involved in the audit cannot accept future employment with the owner or operator of the stationary source for a period of at least two

years following submission of the final audit report. For purposes of this requirement, employment does not include performing or participating in third-party audits pursuant to the requirements of the SCCAP RMP Rule. Two provisions from the 2017 Amendment RMP Rule regarding third party auditor independence have been removed SCCPA RMP Rule: 1) auditors cannot have conducted past research, development, design, construction services, or consulting for the owner or operator within the previous 2 years before the audit, and 2) auditors cannot provide other business or consulting services to the owner or operator, including advice or assistance to implement the findings or recommendations of an audit report, for a period of at least 2 years following submission of the final audit report. These provisions were removed to provide more flexibility for facilities to find third party auditors when they are required.

All personnel involved in the audit will be required to sign and date the conflict of interest statement contained in the proposed SCCPA RMP Rule. Auditors shall have written policies and procedures to ensure that all personnel comply with the competency, independence, and impartiality requirements of the Rule.

The responsibilities of third-party auditors include: manage the audit and participate in audit initiation, design, implementation, and reporting; determine appropriate roles and responsibilities for the audit team members based on the qualifications of each team member; prepare the audit report and where there is a team, *document the full audit team's views in the final audit report*; certify the final audit report and its contents as meeting the requirements of the Rule; and provide a copy of the audit report to the owner or operator.

The SCCPA RMP Rule also requires that the audit report:

- identify the lead auditor or manager, participating individuals, and any other key persons participating in the audit, including names, titles, and summaries of qualifications demonstrating that the competency requirements have been met;
- describe the audit procedures of the owner/operator, or incorporate them by reference;
- document the auditor's evaluation *for each covered process*, of the owner or operator's compliance with the provisions of the Rule;
- document the findings of the audit, including any identified compliance or performance deficiencies; *summarize any significant differences between the draft and final reports (if any)*;
- be certified (signed and dated) by the third party auditors using language in the revised Rule; and
- submit the final report to the owner/operator.

The owner/operator is required to:

- certify the report of their response to the audit findings (i.e., their corrective action plan that includes the audit report itself, the corrective actions, and schedule for the prompt correction of the deficiencies);
- immediately submit audit reports to the Board of Directors (or comparable body or individual within an owner/operator organization), whether or not they were conducted by third parties;
- generate corrective action plans in response to RMP audits within 90 days of the finalization of the audit report; and
- retain the past two RMP compliance audit reports (whether or not they were conducted by third parties) as well as the records pertaining to the responses to the findings, documentation of actions taken to address deficiencies, and related records.

EPA is also proposing to require facilities conducting third-party compliance audits to list in section 7 (Program 3) and section 8 (Program 2) of their risk management plans, for each process, findings resulting from the audit that the owner or operator chooses to decline.

AcuTech Explanation: The proposed changes to the SCCAP RMP Rule, like the 2017 Amendments Rule for the compliance audits element are profound.

<u>When third party audits would be required.</u> 1) when the site has had an incident qualifying for inclusion in the RMP five-year accident history, or 2) when the implementing agency requires a third-party audit based on non-compliance with the requirements of the RMP Rule (including when a previous third-party audit failed to meet the competency, independence, or impartiality criteria). This means that an implementing agency could require a third party audit if it discovers that previous audits were performed by internal (i.e., company) personnel when third parties should have been used, or that the auditors did not contain competent personnel (e.g., not trained or certified). Companies may need to establish formal internal auditor training programs, or used external auditor training services to show that their internal auditors are qualified.

<u>Third party auditor training and qualifications.</u> The proposed 2017 Amendments RMP Rule contained a requirement that at least one auditor be a professional engineer (P.E.). This requirement was removed in the final 2017 Amendments RMP Rule and has not been included in the proposed SCCAP RMP Rule. The preamble to the proposed SCCAP RMP Rule does not define exactly what "trained" or "certified" means. The preamble to the 2017 Amendments RMP Rule stated: "Third-party auditors can meet the requirement to be knowledgeable with the RMP rule requirements, and the requirement to be experienced with the stationary source type and processes being audited and applicable recognized and generally accepted good engineering practices through a variety of ways, including prior experience and training. Third-party auditors can meet the requirement to be trained or certified in proper auditing techniques by completing courses in environmental or safety auditing, obtaining certifications from recognized professional bodies, or having prior process safety auditing experience." The preamble provided several examples such as related certifications, e.g., Certified Process Safety Auditor (CPSA), which is currently issued by the Board for Global EHS Credentialing (this certification was formerly issued by the Board for Environmental Auditors – BEAC). The CCPS-issued Certified Safety Professional (CCPSC)

certification might also be acceptable. The accredited organizations offering these certifications have formal ethics provisions that are part of their certification programs. For example, BGC has a code of ethics for CPSAs. The same is true of many other professional accreditations.

The preamble of the proposed SCCPA RMP Rule does not contain the same statement as the 2017 Amendments RMP Rule, but since the proposed competence requirements for third party auditors is the same as the 2017 Amendments RMP Rule, presumably the certifications and descriptions of competence in the 2017 preamble would still be acceptable today. Please note that the final proposed SCCAP RMP Rule states that the third party auditors must be trained ***and/or*** *certified, i.e., certification is not a requirement. If an owner/operator can show that the auditors were adequately trained in another way besides via certification programs, or that they had adequate experience in PSM/RMP/EHS auditing, then this might be sufficient to satisfy the Rule even if certifications were lacking. Presumably, the resumes or other objective evidence would be required to substantiate such training or experience, other than a simple claim of "extensive" auditing experience or a lengthy number of years performing PSM/RMP audits.*

Impartiality of third party auditors. The impartiality provisions proposed by EPA SCCAP RMP Rule have been modified from the provisions of the 2017 Amendments Rule. In the 2017 Amendments Rule a contractor/consultant could be either an auditor or a consultant for a given owner/operator (at least within a 2-year window before an audit and after an audit), but not both. The 2 year window for third party auditors not having performed other consulting work for the owner/operator being audited has been removed. This allows flexibility in assigning third party auditors to perform a given audit. However, potential third party auditors should be careful not to assign auditors that will require them to audit their own consulting work. This is an obvious conflict of interest. Retired personnel whose sole financial connection with the owner/operator is employer-financed or managed retirement and/or health plans are deemed to be independent for the purposes of serving as third party auditors. Also, consulting/contracting would not trigger the prohibition if it was solely the performance of a third party audit. Also, the 2017 Amendments RMP Rule provision that would have prohibited using anyone who had served as a third party auditor for 2 years as a consultant (including advice or assistance to implement the findings or recommendations of an audit report) was removed. There is also a proposed impartiality provision in the SCCAP RMP Rule that prohibits employment of a third party by the owner/operator for 2 years following submission of the final audit report. Although the SCCAP RMP Rule is not as prohibitive in defining what constitute an independent auditor as the 2017 Amendments RMP Rule, there are still some provisions that may make it difficult to find qualified and independent auditors on a short-term basis.

Auditing each RMP covered process. The SCCPA RMP Rule requirement to evaluate each covered process during the audit is not consistent with current industry EHS and process safety auditing practice. RMP (and PSM) audits routinely include various sampling techniques, including selecting focus/representative units at sites where there are multiple PSM/RMP covered units, e.g., an oil refinery, where there are typically 25-30 covered units. Sampling is a common, accepted, and successfully used practice in EHS auditing. If adopted, this provision will result in increasing the time required to complete the audit or the number of auditors needed. This was

actually verified during the short period of time when the 2017 Amendments Rule was in effect (but not being enforced by EPA) and before the Reconsideration RMP Rule was adopted that rescinded this requirement. Planning and executing RMP audits to ensure that each covered process was included in the audit during that period made the audits more complex and required additional resources to complete within the available time. A compromise approach was used during that period in some particular large audits whereby each RMP covered unit/process was included in the audit, but not every RMP element was audited in those units. This ensured that every RMP covered unit/process was included in the audit but not performing a complete, separate mini-audit of each covered unit/process that included all RMP elements. If this provision of the SCCPA RMP Rule is adopted, hopefully such a compromise approach will be acceptable to the RMP implementing agencies.

Differences of opinion. Audit reports will have to reflect differences of opinion between auditors, if they exist. Also, differences between the draft and final audit reports must be summarized. This is not typical industry EHS auditing practice, where dissenting opinions are not published (like appeals court decisions). Only the consensus opinions are included in final audit reports. This provision will require reconciliation of these differing viewpoints openly in the report which will take time and work and also be subject to scrutiny and questions by regulators. The proposed SCCAP RMP Rule did not describe how these differences would be resolved, nor what the regulators would do when confronted by these differences.

Who receives the audit reports. Audit reports and the documents used to track and manage the audit corrective actions must be submitted to the company board of directors, or a similar committee/group, if one exists, or an appropriate individual. Although PSM and RMP audits are often performed as governance activities in many companies, it is not common for the company's directors, or the audit committee of the board, to receive the audit reports directly, although this is not unheard of. Companies that follow this practice usually have done this by extending the Sarbanes-Oxley reforms in financial/business auditing practices to their EHS audits. This change in the SCCAP RMP Rule will be the first formal adoption of such a practice in process safety regulations.

Rejection of audit findings. The requirement to describe in the submitted risk management plans for which third party audit findings the owner/operator declined to pursue is new. This will require additional time and work and be open to the same scrutiny and questions as the differing viewpoints requirements. Also, the proposed SCCAP RMP Rule did not specifically include rejection criteria for third party audit findings as they did for STAA recommendations (see STAA section of this white paper). Also, the requirement to include this information in the risk management plan is limited only to third party audit findings, not the findings from a non-third party RMP audit.

Possible effects on PSM audits. The PSM Standard requires a triennial audit of the entire PSM program at a facility subject to the Standard. The RMP Rule audit require is slightly different – The RMP Prevention Program (Subpart C or D for Program 2 and Program 3 processes respectively) must be audit triennial. This is not an audit of the entire RMP program. The audits

of remaining portions of the RMP program at a covered site, e.g., the Hazard Assessment (Subpart B), the Emergency Response Program (Subpart E) are the responsibility of the RMP implementing agency, not the site itself. The requirement for third party RMP audits when certain criteria regarding incidents are met will also likely extend to PSM audits because until now PSM and RMP audits were routinely performed concurrently. This is because the requirements of the RMP prevention program were identical to the PSM Standard so the triennial audits were performed at the same time. PSM and RMP facilities will have a choice to make regarding their triennial audits: either perform them together but ensure that the protocol used includes the requirements where the two regulations have now diverged, or perform PSM and RMP audits separately. The competence and independence requirements for third party auditors will increase audit costs for some covered facilities, but a number of them currently use third parties. The audit reporting requirements of the SCCPA RMP Rule to include all auditor's views and to summarize differences between the draft and final reports are not required for PSM audits. Also, PSM audit reports are not required to be submitted to the Board of Directors or an equivalent level of senior management. Also, the requirement to describe in the submitted risk management plans which third party audit findings the owner/operator declined to pursue is not a requirement for PSM audits. These differences will make it increasingly difficult to perform PSM and RMP prevention program audits concurrently. It is likely that facilities regulated by both regulations will have to perform the audits separately, which will increase the time and cost required.

Employee Participation

For regulated facilities with Program 2 and Program 3 processes, EPA is proposing to require employers to consult with employees when making decisions on implementing recommendations from PHAs, compliance audits, and incident investigations; provide employees the opportunity to stop work under certain circumstances; and provide opportunities for employees to report late or unreported accidents and other areas of RMP non-compliance to EPA and other relevant authorities. The written employee participation plan of action will include this consultation of employees and their representatives. EPA expects this would be similar to involving employees in the hazard evaluations but would go a step further to offer suggestions and concerns about why a recommendation should be adopted or declined or whether other alternatives should be taken.

EPA is proposing to require that the written plan of action for the implementation of the employee participation for Program 3 processes include and ensure effective methods are in place so that employees and their representatives have authority to:

- Refuse to perform a task when doing so could reasonably result in a catastrophic release, i.e., a stop work authority.
- Recommend to the operator in charge of a unit that an operation or process be partially or completely shut down, i.e., implement the emergency shutdown procedures based on the potential for a catastrophic release.
- Allow a qualified operator in charge of a unit to partially or completely shut down an operation or process, based on the potential for a catastrophic release, i.e., an emergency shutdown authority.

EPA is proposing to also require that employee participation plans outline how employers should document and respond, in writing and within 30 days, to employee reports of hazards or employee recommendations to shut down or partially shut down a process. Specifically, EPA is proposing to add additional language to indicate that written plans should include information for anonymously reporting unaddressed hazards that could lead to a catastrophic release, unreported RMP-reportable accidents, or any other issue of non-compliance with the RMP Rule. EPA is also proposing to add an additional section for Program 2 processes to implement an employee participation plan that addresses these issues.

AcuTech Explanation:

EPA is strengthening the employee participation element of RMP prevention programs from the same language and requirements as existed in the 1996 RMP Rule and the PSM Standard to include new provisions for stop work authority (SWA), emergency shutdown authority (ESDA), more consultation on resolving RMP program action items, and a method to report RMP non-compliance anonymously. The SWA and ESDA provisions do not currently exist in the RMP Rule or the PSM Standard, but they are fairly common practices. They have been introduced as part of process safety programs in various ways, e.g., the CCPS Risk Based Process Safety Conduct of Operations element. Other companies have made these authorities part of Operational Excellence programs or similar efforts. In any case, they are not new concepts and are already included in one or more process safety related policies or procedures in many facilities. Training programs, particularly for operators, emphasize these two authorities where they are provided. However, both SWA and ESDA are strongly related to the prevailing process safety culture in a facility. Whether personnel will actually implement them when warranted is influenced heavily by that culture, regardless of what the policies and procedures say and what their training has told them. Facilities should examine their process safety culture to determine if their personnel will actually use the SWA and ESDA authorities they have been granted, if they have been formally granted..

EPA is also adding a provision similar to ESDA where personnel can recommend to the operator in charge of a unit that an operation or process be partially or completely shut down based on the potential for a catastrophic release. There is a 30 day time limit for the facility to reply in writing to employee reports of hazards or employee recommendations to shut down or partially shut down a process.

The consultation required when resolving recommendations from PHAs, incident investigations, and audits, including when a recommendation is declined, is stronger than previous employee participation language. Whether the implementing agencies will treat this consultation requirement as a "veto" by personnel over recommendations resolution decisions remains to be seen. The anonymous reporting provisions are similar to OSHA's employee hot line and should function similarly.

Emergency Planning

The 2019 Reconsideration RMP Rule left in place several emergency response requirements that were included in the 2017 Amendments RMP Rule. Because of the COVID-19 pandemic these provisions of the current RMP Rule have not been tested in audits or inspections. The proposed SCCAP RMP Rule reinforces these 2017 emergency response requirements and adds some new ones. These proposed changes are significant and fall into the categories shown below:

Non-Responding Facilities. EPA is proposing to add a requirement for RMP facility owners and operators to designate their facility as a non-responding facility if they choose to not respond to releases of toxic or flammable materials covered by the RMP Rule and/or their consequences. Since the 1996 RMP Rule, facilities have not been required to respond to releases and their effects offensively and can make their employees, plus any contractors and visitors onsite safe, account for all of them, and then rely on local responders to actually respond to the events and fight fires, contain spills, etc. The SCCPA RMP Rule does not change or remove that choice but requires that the site emergency response plan or other document declare which type of facility they have chosen to be, either responding or non-responding.

Coordination & Emergency Notification. The annual coordination meeting between RMP covered facilities and local responders required by the 2019 Reconsideration RMP Rule remains in place. The proposed SCCAP RMP provision would require facilities to develop and implement, as necessary, procedures for informing the public and the appropriate federal, state, and local emergency response agencies about accidental releases of RMP-regulated substances. The proposed amendment would also clarify the facility's role in the implementation of the emergency notification process by requiring the owner or operator to provide the information needed to initiate a public release notification. EPA is also proposing that these notification procedures be available by the facility upon request to the public living in close proximity (within 6 miles) to RMP facilities, to help ensure that members of the public are aware of the steps the facility has taken to notify them when a release occurs.

Community Notification. EPA is proposing to require that a community notification system is in place in order to quickly and efficiently warn the public within the area that could be threatened by a release. This is in addition to the current requirement in the 2019 Reconsideration RMP Rule that responding facilities have procedures for informing the public and the appropriate federal, state, and local emergency response agencies about accidental releases. EPA expects facilities to ensure that a community notification system is available because the Federal Emergency Management Agency (FEMA) has established the Integrated Public Alert & Warning System (IPAWS) for community notification. This system provides authenticated emergency and life-saving information to the public through mobile phones using wireless emergency alerts. It also provides alerts to radio and television via the Emergency Broadcasting System and on the National Oceanic and Atmospheric Administration's Weather Radio. The Emergency Broadcasting System devices found at radio, TV and cable stations can support multiple languages and wireless Emergency Alerts can support both English and Spanish. EPA believes that the presence of state and/or local IPAWS alerting authorities in all 50 states provides the necessary infrastructure for

facilities to ensure that a community notification system is operational within any impact zones of releases that occur from their facility.

EPA is also proposing to require facilities to provide necessary entities with initial RMP accidental release information during releases of regulated substances in order to ensure that information is available to the public and the appropriate federal, state, and local emergency response agencies. Specifically, EPA is proposing that whichever method is used to detect accidental releases, the facility - regardless of responding status - must ensure that the public is promptly notified by the method outlined in the facility's emergency response plan in coordination with local responders.

EPA is proposing to explicitly state the required provisions of the community response plan in the RMP regulatory text. EPA would expect the facility to discuss the community plan with appropriate LEPC officials as part of the facility's coordination activities, e.g., during their annual coordination meeting. Only if the LEPC plan was clearly deficient would EPA consider any action against the facility for relying on it for response.

Release Detection. To better understand electronic detection methodologies available and in use among RMP facilities, EPA is proposing to require owners and operators to input, in an open text field in the submitted risk management plan, specific information on their process area detectors and perimeter monitor technologies and models in use to detect RMP-regulated substances. However, EPA is not proposing any new or separate monitoring or detection systems for releases of RMP substances.

Drills & Exercises. The requirement in the 2019 Reconsideration RMP Rule that annual exercises of the emergency response notification system be conducted remains in place. Also remaining from the 2019 Reconsideration RMP Rule is the requirement to conduct a table top exercise at least once every 3 years. EPA is proposing in the SCCPA RMP Rule to require all facilities with Program 2 and Program 3 processes and subject to the emergency response program requirements (i.e., the responding facility), at a minimum, conduct field exercises involving a simulated accidental release of a regulated substance once every 10 years, unless local responders indicate that frequency is infeasible. This is change from the 2019 Reconsideration RMP Rule where the field exercise interval was established after coordination with local responders. Evaluation reports from drills and exercises must be produced within 90 days as stated in the 2019 Reconsideration RMP Rule, but EPA is proposing to require that the current recommended field and tabletop exercise evaluation report elements and components be mandatory (rather than the "should" language used in the 2019 Reconsideration RMP Rule). The reports would have to be retained for at least 5 years as required in the 2019 Reconsideration RMP Rule.

AcuTech Explanation:

When the 2019 Reconsideration RMP Rule was adopted, the prevention program of RMP reverted back to its pre-2017 provisions in which the language of the Rule was identical to the PSM Standard. However, one key differences between PSM and RMP since the inception of both regulations is that, unlike PSM, emergency response in the RMP Rule is not considered part of the

prevention program. It is a different Subpart of the RMP Rule. Hence, a number of the provisions of the 2017 Amendments RMP Rule that applied to emergency response were not returned to the original 1996 RMP Rule when the 2019 Reconsideration RMP Rule was adopted. The emergency response changes in the SCCPA Rule will have significant impacts on the relationship between an RMP covered facility and the surrounding community and its emergency responders as described below:

Non-Responding Facilities. Since the 1996 RMP Rule, facilities have not been required to respond to releases and their effects offensively and can move their employees, plus any contractors and visitors onsite, to a safe location, account for all of them, and then rely on local responders to actually respond to the events and fight fires, contain spills, etc. The SCCPA RMP Rule does not change or remove that choice but requires that the site emergency response plan or other document declare which type of facility they have chosen to be, either responding or non-responding. The proposed SCCAP RMP Rule does not change the difference between responding and non-responding facilities, nor does it require that non-responding facilities become responding facilities. A majority of facilities/sites in the PSM and RMP community are small facilities, e.g., small warehouse or food processing plants that used anhydrous ammonia as a refrigerant, or municipal water or waste treatment facilities that still use liquid chlorine. These small facilities are, for the most part, non-responding facilities when releases of toxic or flammable materials occur. These facilities then activate and implement their emergency action plans to protect and account for their employees and then rely on local emergency responders for the actual physical responses to the incident. Requiring that facilities explicitly state that they are non-responding in their emergency response policies or procedures will not be a large burden. However, if there is a non-responding facility that has not coordinated with their local responders so that the local fire departments, emergency medical services, police, and other responders do not know that the facility has placed the burden of actually responding on them, this coordination will have to be initiated. In some cases, the local responders who are now confronted with this situation may not willingly accept this responsibility. If non-responding facilities have already made their local responders aware of the site and its operations, chemicals, layout, etc. so that the responders are ready to respond if necessary, this proposed change to the RMP Rule will have no impact.

There is a lingering question from the 2017 Amendments RMP Rule that is relevant to issue of non-responding facilities: What happens if the coordination fails with local responders? If the coordination reveals that the local responders cannot or will not respond to events at the site, the inference is that the site will then become a responding site. Additionally, if the coordination fails despite good faith efforts by the facility then there is also an inference that the burden for providing the response lies with the owner/operator. This has a minor effect in the RMP Rule by itself because it does not invoke other emergency response related regulations, nor does it impose any detailed requirements for such response capability. However, if a site becomes a responding site under RMP, it is very likely that OSHA will then consider it a responding facility under the PSM Standard. This will have a very significant effect on such facilities because a responding facility under PSM must implement certain portions of the HAZWOPER Standard, which require maintaining substantial emergency response capabilities for the facility. Additionally, the LEPC

could request in the writing that the site become a responding site, which would invoke these requirements. This would impose a significant burden for smaller RMP-covered facilities because of the necessary personnel, skills, equipment, and recurring training required to be a functional responding site under PSM and HAZWOPER.

Coordination & Emergency Notification Process. This provision is intended to prevent the public from first finding out about a release that might affect them from the media or via social media. Nearly all PSM and RM P covered facilities have procedures in their emergency response plans (ERP) for informing the public and the appropriate federal, state, and local emergency response agencies about accidental releases of substances covered by both regulations. Therefore, the new requirement should not require substantial changes to existing ERPs or communications capabilities. This proposed provision in the SCCAP RMP Rule would require RMP covered facilities to provide the information needed to initiate a public release notification. While the preamble of the SCCAP RMP Rule acknowledges that only local authorities can call for evacuations, shelter-in-place actions, or other emergency actions by the public, the RMP covered facility has the "fundamental obligation" to inform the public of a release as well as the magnitude of a release. Whether that obligation includes direct communication of that information with the public or with duly constituted local emergency responders (e.g., fire departments, police departments, health agencies, etc.) is not clearly defined. Since any possible resulting actions can only be ordered by local authorities, it is assumed that such communication would be with those authorities and not directly to the public.

EPA is also proposing that these notification procedures be available by the facility upon request to the public living in close proximity (approximately within 6 miles) to RMP facilities, to help ensure that members of the public are aware of the steps the facility has taken to notify them when a release occurs. This is also part of the proposed enhanced information availability provisions associated with the SCCAP RMP Rule.

Community Notification. EPA is proposing to require that a community notification system is in place in order to quickly and efficiently warn the public within the area that could be threatened by a release. EPA is not requiring facilities to implement a new and separate system for this notification. EPA is crediting the community notification system established by FEMA, i.e., the Integrated Public Alert & Warning System (IPAWS). This system can easily handle public notifications stemming from any type of naturally occurring or man – made event. However, when EPA states that "…can expect facilities to ensure that a community notification system is available " what is left unsaid is how they would interpret this requirement if IPAWS has not been established yet in an area where an RMP covered facility is located. Would the covered facility then be responsible for establishing a separate notification system, even on an interim basis, until IPWAS has been implemented in that area?

Release Detection. EPA is not requiring new or separate detection systems for releases of RMP-covered materials in the proposed SCCAP RMP Rule. However, they are requiring the submitted

risk management plan describe the existing process, area, or perimeter monitoring and detection systems/equipment in more detail. Also, EPA expects facilities to identify the most effective method of detecting releases of their specific substances on RAGAGEPs. For example, the International Institute of Ammonia Refrigeration, the Chlorine Institute, and the American Petroleum Institute publish guidance for detecting releases of anhydrous ammonia, chlorine, or hydrofluoric acid in IIAR-9, CI Pamphlet 73, and API 751 respectively. Other RAGAGEPs contain similar guidance for other RMP substances. Note that the use of RAGAGEPs in the PSM/RMP community is typically governed by the "shall" vs. "should" language used in those documents. OSHA has interpreted and clarified this language difference and how it should be applied in PSM programs. EPA has not issued any formal guidance on this matter for the use of RAGAGEPs in RMP programs, but in industry the same language practices are used in RMP programs.

<u>Drills & Exercises.</u> Emergency response drills and exercises are currently mandatory under the RMP Rule due to the retained provisions from the 2017 Amendments RMP Rule in the 2019 Reconsideration RMP Rule. In particular, the annual notification exercise required by the 2017 Amendments RMP Rule remained and is in force today. Note that in the PSM Standard emergency drills and exercises are not currently mandatory unless the facility is a Treatment, Storage, and Disposal (TSD) facility under the RCRA regulations, in which case the drill provisions of paragraph (p) of the HAZWOPER Standard are applicable. Most PSM and RMP facilities are not TSD facilities under RCRA so this HAZWOPER paragraph is not applicable to them. However, many facilities in the PSM community perform such drills or exercises because other federal or state laws/regulations require them, e.g., New Jersey's Toxic Catastrophe Prevention Act, or federal security regulations affecting the chemical/process industry such as the MTSA and CFATS regulations. Even when not subject to these regulations, sites often perform emergency response drills and exercises voluntarily in accordance with their own policies or procedures because they realize that the functionality of ERPs cannot be accurately predicted without drills and exercises, regardless of how well-written or comprehensive they appear on paper. It is also routine for PSM and RMP covered facilities to invite local responders to participate in these drills, however, local responders do not always participate. The new requirement for at least one field drill with local responders every 10 years (unless the local responders state that this interval is not feasible), while a fairly lengthy interval, will impose a requirement on RMP facilities that they do not have complete control over. If the local responders cannot or will not participate it is not clear if the RMP implementing agency will still hold the facility responsible for this field exercise.

Currently, most of the emergency response drills and exercises held by industry are conducted at least annually and are a combination of table-top exercises and field drills (also referred to as roll-out drills). Additionally, most RMP-covered facilities have routinely combined required or voluntary process safety, environmental (e.g., pollution releases), and security drills and exercises. In nearly all RMP-covered sites these activities are formally scheduled, critiqued in writing (usually), and recommendations stemming from them are managed like any other process safety recommendations. Therefore, at a practical level the proposed SCCPA rule change does not impose an unusual or new drill or exercise requirements, but it does set a cap of 10 years on field drills with local responder participation. Also, per the 2019 Reconsideration RMP Rule, the public access can gain access to drill/exercise critique reports.

Information Availability

EPA is proposing to allow the public to request specific chemical hazard information if they reside within 6 miles of a facility. The 6-mile restriction would allow access to information for the vast majority of the public that are within worst case scenario impact zones. After receiving a request, the facility would be required to provide certain chemical hazard information and access to community emergency preparedness information. This proposal is similar to the 2017 Amendments RMP rule, with the added modification that information be restricted to those persons within 6 miles of the facility.

EPA is proposing to restore the following provisions from the 2017 Amendments RMP Rule for community members living within 6 miles of a facility:

- A requirement for the owner or operator to provide within 45 days, upon request by any member of the public, specified chemical hazard information for all regulated processes, as applicable, including names of regulated substances held in a process; Safety Data Sheets (SDSs) for all regulated substances located at the facility; accident history information required to be reported under the RMP five year accident history; and emergency response program information, including whether or not the source responds to releases of regulated substances, name and phone number of local emergency response organizations, and procedures for informing the public and local emergency response agencies about accidental releases.
- A requirement for the owner or operator to provide ongoing notification on a company website, on social media platforms, or through other publicly accessible means that the above information is available to the public upon request, along with the information elements that may be requested and instructions for how to request the information, as well as information on where members of the public may access information on community preparedness, including shelter-in-place and evacuation procedures.

These information availability provisions are in addition to those described above for hazard reviews/PHAs and emergency response.

AcuTech Explanation: In the proposed SCCAP RMP Rule EPA continues to include provisions for increased public access and better ease of that access for RMP related information. The original 1996 RMP Rule, the 2017 Amendments RMP Rule, and the 2019 Reconsideration RMP Rule all contained relatively liberal public access provisions. The reason for this is that the enabling legislation for the RMP Rule, which is the Clean Air Act Amendments of 1990 (CAAA 1990) included a public information component about the risks of process safety related chemical releases. This provision of the law applied only to the RMP Rule. It did not apply to the PSM Standard, which is also authorized by the CAAA 1990. The original plan by EPA was to have the submitted RMPs be publicly available online via the Internet. Even before the events of September 11, 2001, other agencies of the federal government were concerned about the open public availability of such security-sensitive information. Accordingly, the Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (CSISSFRRA) was passed by Congress in August

1999, which among other things, restricted the Internet access of the offsite consequence analysis (OCA) data of RMP covered sites that were submitted with their risk management plans. Following 9/11, the concern about the security of the U.S. chemical industry was heightened even further and the security of OCA and other submitted RMP data was regarded as even more important. When the Marine Transportation Security Act (MTSA) and Chemical Facility Anti-Terrorism Standard (CFATS) regulations were adopted in 2002 and 2007 respectively, both of these regulations imposed careful controls on the access to and release of certain information regarding the chemical facilities subject to them. No other process safety laws or regulations have been passed or adopted that address the security of information about sites covered by the RMP Rule (nor the PSM Standard). It appears now that EPA, in the proposed SCCAP RMP Rule, desires to increase the amount of information and the ease of access to it that describes RMP-covered sites and certain information about their RMP programs. Apparently, EPA believes that this is required under their obligations under the CAAA 1990. The security concerns for the chemical/process industry of several years ago have not abated. Hopefully, in the final SCCAP RMP Rule security concerns will again outweigh the proactive release of RMP related information to the public via the Internet/social media. Since 1999 when the CSISSFRRA law was passed there has not been any public outcry that they have been restricted from relevant information about the chemical/processing sites in their communities, although EPA stated in the preamble of the SCCAP RMP Rule that more access is desired by the public, interest/advocacy groups, and others. Also, there are still ways to access this information that are consistent with existing laws and regulations without posting it on the Internet. Due to CSISSFRRA OCA data, which would be the most sensitive information, cannot be posted on the Internet by EPA. To change this, action by Congress would be necessary.

<u>Other Changes</u>

The proposed SCCAP RMP Rule also contains several other important changes as summarized below. Some of these changes are relatively minor in that they harmonize the language for Program 2 and Program 3 requirements. Some of these changes are because of differences between the two classifications of RMP processes since the 1996 RMP Rule. Program 3 requirements are identical to the PSM Standard, whereas the Program 2 are unique to RMP and their wording is very similar but not identical to the PSM Standard. Others change basic RMP related definitions or requirements and represent important modifications of RMP practices and are not minor wording changes.

- In order to make the regulation more consistent throughout, EPA is proposing to clarify that the requirement to keep process safety information up to date also explicitly applies to Program 3 processes.
- RAGAGEP compliance between Program 2 and Program 3 is worded differently. EPA is proposing to harmonize these two provisions so that the requirements are identical. EPA has found that the distinction between "ensure" for Program 2 processes and "document" for Program 3 processes creates confusion. EPA therefore proposes to replace both provisions to

indicate that the owner or operator shall ensure and document that the process is designed in compliance with RAGAGEP.

- EPA is proposing to require retention of hot work permits for 5 years, in accordance with the recordkeeping requirements in the RMP Rule.
- EPA is proposing additional regulatory language that includes a specified number of hours that a transportation container may be disconnected from the motive power that delivered it to the site before being considered part of the stationary source. EPA believes that this provision would provide clarity for regulated facilities and implementing agencies on whether a transportation container used for onsite storage must be incorporated into a facility's risk management plan. EPA is proposing to apply a 48-hour time frame to this term based on the Department of Transportation (DOT), Pipeline and Hazardous Materials Safety Administration, Carriage by Rail regulations at 49 CFR 174.14(a), that indicate rail carriers must forward each shipment of hazardous materials promptly within 48 hours after acceptance or receipt. The 48 hours would be the total amount of time, such that a railyard could not move a rail car around in the railyard using a mobile railcar mover to start the clock again.
- EPA is proposing to modify the definition of stationary source to further clarify "storage incident to transportation" by adding an explanation to the transportation container language in the stationary source definition. The proposed regulatory text would add examples of what a transportation container could be, such as a truck or railcar, and that for RMP purposes, railyards and other stationary sources actively engaged in transloading activities may store regulated substances up to 48 hours total in a disconnected transportation container without counting the regulated substances contained in that transportation container toward the regulatory threshold.
- EPA is proposing to adjust the regulatory text to clarify that the definition of "retail facility" is one in which more than one-half of the "annual" income "in the previous calendar year" is obtained from direct sales to end users or at which more than one-half of the fuel sold over that period, by volume, is sold through a cylinder exchange program. EPA is proposing one year of sales activity because they believe it captures the seasonality of propane sales at propane distribution facilities. Note that OSHA is considering abandoning their similar definition in the PSM Standard in favor of using the NAICS codes for defining retail facilities such as department stores, convenience stores, and similar businesses. The one-half-of-the-income criteria that OSHA has been using since the original adoption of the PSM Standard has caused much confusion in determining whether a facility is a retail facility or not.
- EPA is proposing that the RMP regulations clarify that PHAs must include an analysis of the most recently promulgated RAGAGEP in order to identify any gaps between practices related to the facility's design, maintenance, and operation and the most current version of RAGAGEP.
- EPA is proposing to require RMP covered facilities specify in their risk management plans why PHA recommendations associated with adopting practices from the most recent version of RAGAGEPs are not implemented. EPA is proposing to adopt three of the four criteria used

by OSHA to reject PHA and incident investigation recommendations and re-worded (slightly) in the SCCPA RMP Rule preamble. EPA is not proposing to adopt the rationale that "[t]he recommendation is not necessary to protect public receptors," because there are many safety measures such as pipe labeling, training, and some standard operating procedures that do not directly affect public receptors, but that can have indirect or secondary effects on responders or public receptors. By allowing owners or operators to screen out recommendations that do not directly affect public receptors, EPA is concerned that facilities may discount important recommendations. For this provision, EPA is also proposing to modify the rationale that "[a]n alternative measure would provide a sufficient level of protection" by adding that the safety measures adopted in lieu of the ones recommended by the PHA team must be recognized and generally accepted. This will help ensure that facilities do not ignore updated RAGAGEPs when making decisions about which PHA recommendations to accept or reject. This change will require a more in-depth engineering evaluation of a recommendation before it is rejected.

Timing

EPA has proposed the following timing requirements for complying with the final SCCAP RMP Rule:

- Require regulated sources to comply with new STAA, incident investigation root cause analysis, third-party compliance audit, employee participation, emergency response public notification and exercise evaluation reports, and information availability provisions, unless otherwise stated, 3 years after the effective date of the final rule as published in the Federal Register.
- Require regulated RMP facilities to comply with the revised emergency response field exercise frequency provision by March 15, 2027, or within 10 years of the date of an emergency response field exercise conducted between March 15, 2017, and the publication of the final rule in the Federal Register.
- Allow regulated RMP facilities 1 additional year (i.e., 4 years after the effective date of the final rule) to update and resubmit risk management plans to reflect new and revised data elements.

What is Not Included in the Proposed SCCAP RMP Rule

The EPA Request For Information (RFI) for the RMP Rule published in the Federal Register on July 14, 2014 contained 25 items. Only five RMP programs elements have been addressed in the 2017 Amendments RMP Rule that resulted from the 2014 RFI. The proposed SCCAP RMP Rule contains addresses the same RMP elements as the 2017 Amendments RMP Rule plus it adds some new requirements for those elements as well as for PHAs. All of them are for prevention program elements and emergency response, plus the public access to RMP information. A number of items in the 2014 RFI have not been addressed. EPA did not offer any proposed changes in the SCCPA

RMP Rule to the Hazard Assessment Subpart of the rule. Notable by its absence is any proposal to alter the list of RMP chemicals, particularly the addition of ammonium nitrate, which was the chemical of interest in the West, TX accident, although the preamble to the proposed SCCAP RMP Rule recognizes the need to review and possibly modify the list of RMP covered substances. Also, no proposals were offered to change any of the threshold quantities for current RMP-covered chemicals. Other high profile prevention program items such as extending the Mechanical Integrity requirements to cover any safety critical equipment, the definition of a recognized and generally accepted engineering practice (RAGAGEP), or organizational management of change were also not addressed. Perhaps EPA intends to make proposals in further rulemaking, or is waiting until OSHA formally proposes revisions to the PSM Standard to propose further RMP revisions.

Conclusions

As described in the AcuTech Explanation section of each proposed change, some of the proposed SCCAP RMP Rule changes will impose significant changes to RMP programs in industry. For those facilities covered by both the RMP Rule and the PSM Standard, these changes will also affect the scope and contents of their PSM programs. This is inevitable as even with some differences in RMP prevention program requirements introduced by the SCCAP RMP Rule proposals, the requirements of the PSM Standard and the prevention program of the RMP Rule will remain very close.

Although the divergence with PSM Standard in the SCCAP RMP Rule is not major this is first time that the two regulations will not be identical if the SCCAP RMP Rule changes described thus far are adopted. The possible changes in enforcement policies for EPA and OSHA for the two regulations are unknown.

The SCCPA RMP Rule proposals contain the use of worst case/alternative release scenario (WCS/ARS) results for an RMP purpose other than simply the collection of the data. Although this first use is only to establish criteria for requiring Safer Technologies and Alternatives Analysis (STAA) for facilities with certain offsite effects, up until now, the WCS/ARS results had not been used for any other purpose in the RMP Rule or its enforcement.

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AcuTech specializes in process safety since 1994. Our consultants have internationally recognized expertise in process safety and risk management program analysis, development, and implementation, with specialization in the petroleum, chemical, and petrochemical industry. We have deep experience conducting hazards analysis and risk assessments, developing, implementing, and auditing of PSM programs, and offer training and software to assist companies to improve their management systems and reduce risk. We have also helped develop industry guidelines in PSM, including the CCPS *Guidelines for Auditing Process Safety Management Systems, 2nd Ed.; Inherently Safer Chemical Processes – A Life Cycle Approach, 3rd Ed.;*

Guidelines for PSM Metrics; and Essential Practices for Creating, Strengthening, & Sustaining Process Safety Culture.

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