# NJDEP Technical Guidance Document: Response to Comments

## **<u>Guidance Document:</u>** "Planning for and Response to Catastrophic Events at Contaminated Sites"

## Review / Comment Period:

#### Start: Tuesday, December 29, 2015

#### End: Tuesday, February 09, 2016

	Page	Section	Subsection	COMMENT	Response
1	14	Table 1		1) Typo in title "urba". 2) We suggest that the operational definitions of probability be written as annual percentages. The current nomenclature that a storm occurs every X number of years gives a false impression that it rarely occurs less than that. Today, the 100 year storm is typically referred to by professionals as the '1% storm' because every year there is a 1% chance that it may occur. 3) Using the Beaufort wind scale for hurricanes is confusing since NOAA defines hurricanes using the objective Saffir-Simpson scale and most tools and policies they plan for hurricanes use the Saffir-Simpson scale. At a minimum, we suggest including a note/caveat in the matrix about the difference between the two scales and why the Beaufort was chosen. 4) The frequency and intensity of storms and flooding will increase with sea level rise and climate change. We suggest that the matrix be reviewed by climate scientists' to ensure the correct probabilities of projected storms and precipitation. Similarly, the extent (boundaries) of the flood hazard zones will expand. Local officials and property owners should plan for these projected intensity of storm events and precipitation will increase. 6) Given the increased rate of SLR and changes in the magnitude/intensity of future flood events, perhaps the table should be revised to include timeframes to allow for short-term and long-term planning, but, particularly, to promote long-range planning that accommodates these future conditions. (' Organizations with climate scientists that are actively engaged in New Jersey flood projections include Rutgers University and Climate Central.)	The Operational Definition was changed from a range of years to percentages. The wind scale was changed from "Beaufort" to "Saffir-Simpson". The definition and discussion of climate change is beyond the scope of this document. The definition of "Catastrophic Event" provided in the Guidance excludes "slow onset events like climate change".
2	15	Table 2		1) Typo in the fifth line "remdial"; 2) First line - the phrase "1 meter sea-level rise zone" is unclear. We suggest this be associated with a time frame and a source; 3) The increase in frequency/magnitude of future flood events as mentioned above could cause greater damage on some of the points of the system than reflected in this table, suggesting a higher priority under water damage. We suggest this table be reviewed by climate scientists and professionals that were involved in clean-up sites in post-Sandy, particularly Newark.	The typo ("remdial") was corrected in the 5 <sup>th</sup> line of Table 2 . The term "1 meter sea level rise' was deleted and replaced with "at risk of flooding". Many Committee Members who helped develop Table 2 were directly involved with post-Sandy response efforts. In addition, Table 2 is provided as an example to help the Investigator develop a site specific table. Based on site conditions, the Investigator may modify this table, create a different table, or use other means to evaluate site vulnerability and appropriate adaption measure. Additional review of this Table by a climate scientist is considered unnecessary and beyond the scope of the Guidance.
3	18	3.13	2nd paragraph	First line - The phrase "The planning" is not clear.	The Committee agrees the term "the planning" is unclear. This term was deleted and replaced with the words "The Investigator should".

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4	÷ .	n/a			We suggest this document be forwarded to the NJ Environmental Justice Alliance for review, given their expertise in neighborhood contamination from toxic sites during Hurricane Sandy.	This guidance document was distributed for review in accordance with existing procedures. This includes distribution to all Stakeholders participating on Round II Technical Guidance Committees and NJDEP/SRP Staff. Each Stakeholder is requested to broaden this review network by coordinating additional review within their respective constituencies. In addition, the Sustainability Institute of The College of New Jersey was requested to review the Guidance. The commenter requested that an additional review be conducted by the NJ Environmental Justice Alliance. While the impact from "Sandy" on neighborhood communities is agreeably important, it is beyond the scope of the subject Guidance, which focuses on the preparation and response to catastrophic events from sites undergoing remediation.
5	;	10	2	6	Will verification of the planning process for catatrophic events at contaminated sites be required on the bi-ennial certification?	This Guidance does not currently require any verification for catastrophic event planning in the biennial certification.
e	; .	13	3	1	1st pragraph, last sentence, will the existence of a "Catastrophic Event Plan" be verified by some means?	Currently there are no plans for the Department to verify the existence of a catastrophic event plan.
7		14	3	1	Subsubsection 1, Table 1, earthquakes between 4 and 5 are not captured in the chart, suggest revising "Occasional" probability to <=5.	Table 1 has been revised relative to earthquake probability.
8	, ·	14	3	1	Subsubsection 1, Table 1, Nor'easter is defined with winds between 39 and 54 mph, but Cat 1 Hurricane starts at 60 mph.Suggest revising Nor-easter to be winds between 40 and 59 mph.	After further consideration, it was decided that a Nor'easter is not offically defined by wind velocity. The range of wind velocities associated with a Nor'easter was deleted.
g	, .	17	3	1	Subsubsection 2, Number 3, Suggests a backup generator may be installed with automatic startup in the event of power failure. The loss of power is likley the greatest common risk for sites. Is there a minimum threshold on volume, distance from well head, etc. that will be set to help the Investigator to determine when this may be required?	This level of detail is beyond the scope of this Guidance. No change made.
1	0	20	3	1	Subsubsection 5, 2nd paragraph, NIMS purpose is provided as Appendix D.	Agreed. A change has been made to indicate NIMS is located in Appendix D.
1	1	20	3	1	Subsubsection 5, 2nd paragraph, link to description of IS-700 training does not work, same comment for link in Appendix D.	The link to IS-700 has been updated.
1:	2	24	4	NA	References 4 and 5 are the same reference.	The Link that was listed as reference #5 should have been part of reference #4. The link has also been updated (fema.gov).
1:	3	28	A	NA	Hour 72 - 48 suggest activities be revised to have monitor weather as 1, report to NJDEP as 2, ID and inventory as 3, Review and coordinate emergency preparatory measures. However, the guidance text does not require coordination with NJDEP pre- event. Only coordinating with NJDEP post-event if an NJDEP contractor. Please resolve. "?" should be removed.	Appendix A: Zero Hour Countdown - Added the words "Anticipated Events" to end of Appendix A title. For the "Zero Count Down" sequence, the order of presented actions was revised to have "monitor the weather" as #1. Coordination with NJDEP has been removed.
1.	4 :	30	С	NA	2nd paragraph to be removed, remove email addres for Frank Sorce.	The contact information on page 30 has been edited.
1	5	7/8	2.4		If DEP is holding financial security in some form and If a remedial system suffers from a catastrophic event, can we speak to the possibility of the RP needing to re-evaluate the dollar value of their funding source?	Discussion of RFS and FA is beyond the scope of the document. The Committee discussed the value of Section 2.4 relative to the overall document content and decided it was not needed. Section 2.4 has been deleted.
10	6	10	2.6		In the Remedial Action section, first bullet, we mention site wide RAO and AOC specific. It may be worthwhile to raise the notion of AOC specific earlier in the document. I think the premise of the document and most folks thought processes is to be comprehensive and think site wide, but there could be instances where multiple RPs have third party agreements and have agreed among themselves to handle different AOCs. In this type of scenario, they should work together to be as comprehensive as possible.	While the Committee appreciates the comment, the subject Guidance is intended to be general and not specific to issues regarding multiple PRCR agreements or cooperation among multiple PRCRs. No change has been made.

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17	3	1	1	CCNJ/SRIN proposes the suggested changes below to 1.0 Introduction and Background: Paragraph 1: Due to its industrial history and a progressive contaminated site cleanup program, New Jersey has identified many contaminated sites in need of remediation. By the end of 2014 there were approximately 14,000 contaminated sites under the purview of the New Jersey Department of Environmental Protection (NJDEP or Department). Leading up to and during", and in the aftermath of, " Superstorm Sandy in October 2012, "one of" the primary concerns of the Site Remediation and Waste Management Program (SRWMP) was" securing "and assessing the effects of Sandy on the approximately 14,000 contaminated sites within the State. The focus of the SRWMP prior to the storm was to assist with site preparedness," so as to prevent the release of hazardous materials, and "respond to" addressing any releases that may have occurred due to the storm. "The overall effort was to" in a timely manner reduce or eliminate threats to human health and the environment. In an attempt to learn from that catastrophic event, SRWMP staff and managers who were involved in the response efforts participated in a post-storm exercise. To review, analyze, and learn from the experince". The goal of this exercise was to evaluate lessons learned and identify improvements that could enhance remedial system resiliency for any catastrophic event in the future. "It is important to note 'sites undergoing remediation' includes a broad scope of sites. The types of sites include active and inactive gas stations, active and inactive production sites, and sites under investigation. Active sites will have an Emergency Response Plan/Contingency Plan/Business Interruption Plan, or alternate, that incorporates how to handle and manage catastrophic events at the business units and may not require another plan." Paragraph 2: Through this evaluation, it became clear that", at some SRWMP sites," Licensed Site Remediation Professionals (LSRPs), the Person Responsible	Section 1.1 was modified using some of the suggested language in this comment.
18	4	1	1.1	CCNJ/SRIN proposes the suggested changes below to 1.1 Intended Use: Paragraph 1: This guidance is designed to help plan for and respond to a catastrophic event", specifically as it could affect sites undergoing remediation. This guidance is voluntary and was prepared to assist in planning." It "may" be used in concert with, but does not supercede Paragraph 2: CCNJ/SRIN proposes deletion of the last sentence, "However, if there is a new release at that site from a catastrophic event, this guidance document would apply.", since a new release would trigger appropriate requirements. Paragraph 3: CCNJ/SRIN recommends that the technical document be utilized as a guidance reference tool only, not a regulated technical document. The guidance is to be utilized as a tool to assist property owners plan and evaluate extreme events where there are potential receptors that may be impacted. CCNJ/SRIN proposes bolding/italicizing the phrase "best management practices" to illustrate that this document is guidance only, not a regulation. In addition, CCNJ/SRIN recommends defining "best management practices" as it means different things to different people.	Paragraph 1: The term "contaminated site" is defined in the Guidance and appropriately used in this section. No change was made. Paragraph 2: The text has been edited to incorporate some of the suggested changes. A definition of "Best Management Practices" was added to the Glossary. Paragraph 3 – A definition of "Best Management Practices" is now included in the Glossary. Adding additional emphasis by making the term bold or italicized is considered unnecessary.
19	4	1	1.1	The proposed intended use of the technical document is too broad which encompasses a small discharge (less than 100 gallons of petroleum), multiple AOCs, and entire active sites that are being investigated/remediated at any of the remedy phases (PA, SI, RI, RA). This document leads the Investigator to assume that this is one-size-fits-all approach for all remediation sites. It does not matter the size and magnitude of the area(s) of concern, the extent of the contamination, or facility operations not in site remediation. CCNJ/SRIN requests that the intended use for the technical document focus on sites that do not have emergency response action plans. In addition, the document should exclude routine small discharges of hazardous materials that are addressed under emergency response actions in accordance with 7:1E-5.3 DPCC Discharge Requirements. While the document acknowledges that it is not based on rule or statute, it is creating a de-facto standard. Furthermore, ARCCS requires any person conducting remediation to do so "by applying any available and appropriate technical guidance concerning site remediation as issued by the Department" (7:26C-1.2(a)3).	The Guidance is intentionally broad and intended for catastrophic event planning; not DPCC planning with its associated regulatory thresholds. As stated in Section 2.6 of the Guidance "This Technical Guidance is intended to be used for contaminated sites at any remedial phase; however, it will be most applicable at contaminated sites in the RI, RA and post-RA (limited restricted use and restricted use) phases. Similar to a Conceptual Site Model, the scale of any plan is relative to the size and complexity of a site. Even small sites benefit from pre-planning for expected and unexpected events. This document is "Guidance" and not regulation. It does not require the submission of deliverables to the Department. It presents recommendations for preparing for and responding to anticipated and unanticipated catastrophic events. If a plan already exists at a facility that meets the intent of this Guidance, that is sufficient. However, many facilities have plans that focus more on the production aspects of a facility rather than the environmental consequences of a catastrophic event.

20	4	4 1	1	1.1	CCNJ/SRIN requests the following clarifications: 1) Is this technical document a document that must be incorporated into existing emergency/contingency planning and submitted along with the required site remediation documents? -or- 2) Is this technical document a stand-alone document that must be submitted along with required site remediation documents? As stated in the comments above, many facilities have existing plans that address catastrophic events. The use of a technical guidance document for active sites is duplicative, and multiple emergency response plans can cause confusion.	This Guidance does not require the submittal of any deliverables; it is intended to be used as a planning tool. Additional language has been added to Section 1.1 and Section 3.3 to clarify this point. Planning and response plans are more effective when they are written documents rather than verbally communicated plans. If an emergency response plan already exists at a site that achieves the objectives of this Guidance, the development of another document is not necessary.
21	4	4 1	1	1.2	NJDEP implies that there was a lack of planning for catastrophic events for Superstorm Sandy. Facilities did prepare and secure their facilities to prevent discharges, spills, equipment, etc. from exposure to the elements of the storm. CCNJ/SRIN proposes the first paragraph of 1.2 Purpose be rewritten as follows: "It is widely accepted that proper planning for unforeseen/catastrophic type events results in less significant impacts, including personal injuries/deaths, property damage, economic-production time losses, and resources dedicated to recovery efforts. Proper planning can also eliminate and/or reduce the unintended release of contaminants and impacts to the environment during these types of events. The purpose of this document is to utilize the lessons learned from Superstorm Sandy to help New Jersey increase its resiliency to these events, specifically as it pertains to properties undergoing remediation. As stated above, the primary intention of this document is to provide a guideline to assess vulnerabilities for Investigators who, without experience/training, may be designated as the individual to prepare for and/or respond to unforeseen/catastrophic events at contaminated sites (mainly LSRPs, PRCRs). This document also can serve as a reminder to Investigators of active facilities that are required by regulation to have many of these plans to implement the environmental activities/infrastructure into their facility-wide plans."	It is not the intent of the document to suggest that there was a lack of proper planning at every site. Edits have been made to Section 1.2. Additional edits were also made in response to some of the suggestions presented in this comment.
22	5&	39 2	2	2.1 & Appendix F	The types of catastrophic events described in the technical guidance are very broad and general. Likelihood and severity of a catastrophic event for a facility, along with the ability to control and mitigate, need to be considered. This catastrophic plan would need to consider every possible event for each of the site remediation sites, and it is not feasible to plan for every conceivable event scenario. This is an administrative burdensome task to conduct and document for each type of category. In addition, the amount of training to perform is labor intensive. The types of catastrophic events do not appear to align with the definition of catastrophic event in Appendix F Glossary. Therefore, CCNJ/SRIN recommends that the definition of catastrophic events be incorporated into Section 2.1. Also, CCNJ/SRIN requests clarification on the following statement: "For unanticipated events, establishing automatic management and operational responses becomes increasingly important." The focus should be on proper planning and training rather than upholding automation as the solution to all concerns.	Examples of catastrophic events presented in the Guidance are intentionally broad; it would not be possible to list every possible event. Consideration of the likelihood and severity of an event occurring at a site are already addressed in the Guidance in Section 3.0, Figure 1 (Decision Chart – Appropriate Level of Planning and Preparation), and Table 1 (Risk and Probability Assessment Matrix). The term "(disaster)" is an undefined term within the Guidance and was deleted from Section 2.1. The statement made Section 2.1 ("For unanticipated events, establishing automatic management and operational responses becomes increasingly important") pertains to situations where communications are disrupted and/or site access is prevented. A lesson learned from Superstorm Sandy was that communication disruptions and the inability of operators/managers to travel to the site negatively important, but should incorporate plans that are automatically implemented if an unexpected catastrophe occurs. This might include a list of alternate phone numbers and contacts; preplanned meeting places; chain of command structures for decision making, and preplanned response actions that would be implemented by on-site personnel. The term "protocols" was added to the last sentence of the second paragraph of Section 2.1 to clarify this point.
23	7	7 2	2	2.2	CCNJ/SRIN proposes deletion of "future land use" under Land Use section. Evaluation of future land use is important in remediation determinations but not so in emergency planning.	The Committee does not agree. Future land use in regard to site operations, remedial activities and catastrophic event planning are valid considerations. However, such considerations are not always applicable at every site. As such, the text was changed to "and, potentially, future land use, if appropriate"
_2	7	7 2	2		CCNJ/SRIN recommends that the entire "Economic and Financial Benefits, Planning and Responsibilities" section must be removed. This section is not applicable or required in this technical guidance. This is a business issue that is addressed by having a Business Interruption Plan.	The Committee discussed the value of Section 2.4 to the overall document and decided it was not needed. Section 2.4 has been deleted.
2	8	3 2	2	2.5	CCNJ/SRIN requests that "Toxic Catastrophe Prevention Act (TCPA) Program - N.J.A.C. 7:31" be added to the list.	Agreed. The Toxic Catastrophe Prevention Act (TCPA) Program - N.J.A.C. 7:31 has been added, as requested.

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	26	9	2	2.6	any remedial phase; however, it will be most applicable to contaminated sites in the RI, RA and post-RA (limited restricted use and restricted use) phases.", since it should be made clear that this is a guidance document, not a regulation. Also, CCNJ/SRIN request clarification on the Investigator identifying whether the PRCR has conducted catastrophic event	The following edit was made regading language in this section: "This Guidance was developed for contaminated sites at any remedial phase, however, planning for and responding to a catastrophic event may differ depending on what remedial phase the site is undergoing." In regard to the PA Phase of Investigation - although there will only be a limited amount of information available Catastrophic Event planning would still be of value. If the Investigator decides that no risk exists in regard to impact from a Catastrophic Event, no plan would be needed.
	27	10	2	2.6	CCNJ/SRIN recommends revising the example of armoring a cap under the Post Remedial Action section to evaluating appropriate methods for hardening to address potential interference with on-site activities.	The example provided for armoring a cap is a realistic alternative. No change made.
22	11	& 12	3	3.1 & Figure 1	Also, CCNJ/SRIN requests re-evaluation and revision of Figure 1, as it seems inconsistent with the text. For example, a restricted RAO for a site with a cap and deed notice could have been issued. The chart shows that no minimum level of	The Tech Regs provide a definition for "site"; further clarification is not necessary." However, even parts of an operating facility without AOCs would benefit from the planning and response recommendations presented in the Guidance. Figure 1 is presented as an example to help guide the Investigator and is not meant to be applied blindly. Best Managment Practices should aways be observed.
	11	& 28	3	3.1 & Appendix A	lead to excessive communication. There are no existing regulations that require PRCR to report to NJDEP on site status. NJDEP	The count down schedule is provided as a planning tool to help the investigator prepare for a catastrophic event. The requirement to notify DEP has been removed, however, the Department may reach out to sites before, during, or after an event to assess environmental impact and to obtain information on the status of the site.
		& 13	3	Figure 1 & 3.1	CCNJ/SRIN requests clarification on whether "a standalone Catastrophic Event Plan" would now be a new deliverable.	No, "a standalone Catastrophic Event Plan" is not a required deliverable.
	31	13	3	3.1	CCNJ/SRIN proposes the suggested changes below to 3.1 Preparedness: Paragraph 3: Sites where remediation has already been completed, for example, where an Entire Site Remedial Action Outcomes (RAO-E) or Area of Concern Remedial Action Outcomes (RAO-A) "or No Further Actions (NFAs)" have been issues, may require no planning or preparation beyond maintaining a list of current site contacts NFA is mentioned along with RAO under 1.1 Intended Use on page 4.	Based on the comment, changes have been made to this Section.
32		13	3	3.1.1	complicated or critical sites	Text was added recommending the Investigator use Table 1 to help determine if a site can benefit from catastrophic event planning. The recommended FEMA reference involves a more complex analysis of site conditions than is warranted by the scope of this Guidance and was not incorporated into the document.
33		14	3	3.1.1 & Table 1	Deletion of "significant damage" and replacement with "moderate damage \$10,000 - \$100,000"	In response to this comment, changes have been made to the Operational Definitions of Table 1.
34		18	3	3.1.3		The recommendation to notify the Department has been removed. However, the Department may reach out to high risk sites to determine the status of the site in order to help prioritize the Department's manpower and resources.

35	18 & 2	0 3	3.1.3 & 3.1.5	Federal Departments and agencies are required to make adoption of National Incident Management System (NIMS) by local, state, territorial, and tribal nation jurisdictions a condition to receive Federal Preparedness grants and awards. The NIMS Implementation Objectives were developed to guide jurisdictions in their implementation of NIMS. NIMS implementation is assessed through the direct reporting of data to FEMA utilizing the Unified Reporting Tool. CCNJ/SRIN recommends that all NIMS requirements in the technical guidance be deleted. However, NIMS can be referenced in Section 4.0 as a Reference tool, and included in Appendix D. In addition, CCNJ/SRIN recommends that the right experts be consulted for various technical issues depending on the site and event that one is preparing for.	NIMS is a Federal and State accepted management system; it was appropriately referenced to help guide the Investigator. Edits have been made to Section 3.1.5 Languauge in the first paragraph has been changed to "At a minimum for low-risk sites, training should include a program of routine review and verification of the contacts list. Some sites may already have emergency response plans which have training and exercise requirements."
36	18	3	3.1.4	A hardcopy of the material and equipment inventory, list of local/state emergency responders, emergency response contractors, and large equipment suppliers are written into existing emergency response/contingency plans. This is redundant and unnecessary.	Language has been edited in this section as follows: "If not part of an existing emergency response plan for the site, the Investigator should create an inventory of available personnel, equipment and materials that will be needed during event preparedness and response activities."
37	19	3		CCNJ/SRIN recommends that this section open with a reference to HAZWOPER. Only properly trained personnel, and only personnel trained to respond to certain types of emergency, should be deployed.	The following text has been aded to Section 3.2.3 to address the concern of the Commentor: "Ideally, properly trained personnel should be deployed." However, the Committee recognized that in many cases getting specifically trainined personnel to the site during a catastrophe may not be possible. Preplanning for this possibility would be prudent.
38	20 & 2	4 3&4	3.1.4	The link to reference (11) (https://rtlt.ptaccenter.org) does not work.	The link has been corrected to https://rtlt.preptoolkit.org/Public.
39	21	3	3.2.1	CCNJ/SRIN requests clarification on what is the "pertinent information regarding site conditions and the operating status of site systems" that needs to be communicated to NJDEP.	The recommendation to notify the Department has been removed. However, the Department may reach out to high risk sites to determine the status of the site in order to help prioritize the Department's manpower and resources.
40	22	3	3.2.3	PRCR is responsible for evaluating resources and implementing the response. This is not the responsibility of an LSRP to evaluate resources and implement the response to a catastrophic event nor is it their responsibility to apply and submit for emergency permit waivers. Therefore, CCNJ/SRIN recommends that the following words be deleted: "or applying for NJDEP emergency permit waivers as necessary (air, stormwater, discharge to ground water, surface water discharges, land use, dredging, solid waste, etc.)."	The language was modified, as follows, to better reflect the roles of the PRCR and Investigator. "At this point, the PRCR is responsible for evaluating resources and implementing the response, however the Investigator, if requested, can assess the required response actions associated with new discharges or ongoing remedial actions. For example, the Facility Contact may be focused on restoring site operations while the Investigator could assist in restoring or evaluating on-site ground water treatment or engineering controls, or applying for NJDEP emergency permit waivers as necessary (air, stormwater, discharge to ground water, surface water discharges, land use, dredging, solid waste, etc.). "
41	23	3	3.4.1	CCNJ/SRIN proposes the suggested changes below to 3.4.1 Post-event reporting: Paragraph 2: "It is the responsibility of the <i>PRCR</i> to" evaluate the potential reporting requirements on a site-specific basis as part of his/her post-event activities."	The term Investigator includes PRCR, no change made
42	24	4	3.4.3	For example, a NJPDES permit that is based on a specific technology or system configuration may dictate that the system be	This Section focuses on ways to increase resilience rather than reasons not to. Since the words "as appropriate" are used in the second sentence, it is considered adequate. No change was made.
43	30		Appendix C	Contacting NJDEP prior to a catastrophic event should not be necessary, and would lead to excessive communication with little to no value. CCNJ/SRIN proposes deletion of "Can the information below be placed in a table? A table doesn't show up in the printed copy."	Recommendations to notify the Department have been removed. However, the Department may reach out to high risk sites to determine the status of the site in order to help prioritize the Department's manpower and resources.
44	31 & 3	32		CCNJ/SRIN proposes deletion of pages 31 and 32 in their entirety as they provide no value.	The reader is free to ignore this list of topics on the NJDEP Website. No changes made.
45			Appendix	An appendix with a simple Emergency Response Template would be most useful in this document.	The Flowchart (Figure 1) meets the intent of the comment for this document. Additional detail is beyond the scope of this document.