

**XIV. Hazard Assessments Program**  
**Nevada Division of Environmental Protection**  
**Chemical Accident Prevention Program**  
**Element Audit Checklist**

Revision 1, 3/11/16



<b>Facility:</b>	<b>Process(es) Covered:</b>			<b>HHS(s):</b>	
<b>Completion Score History</b>	<b>Date</b>	<b>Part A</b>	<b>Part B</b>		
		xx%	xx%		
<b>A. HAZARD ASSESSMENTS REVIEW</b>					
<b>Documents Reviewed</b>					
<b>Date Reviewed</b>	<b>Title of Document</b>	<b>Rev. #</b>	<b>Date</b>	<b># Pgs.</b>	
<b>Notes:</b>					
<b>1) WORST-CASE SCENARIOS</b>			<b>NAC Ref.</b>	<b>Resp. Code</b>	
<i>Item #1 Completion Score – Weighted 40%</i>			<i>x / 17 = xx%</i>		
i. Was the correct chemical(s) chosen?			459.95364		
ii. Was an appropriate amount of scenarios analyzed? <i>(One for each toxic, one for each flammable, additional required if worst-case release for another covered process could affect different public receptors)</i>			459.95366(2)		
iii. Was the release quantity(s) accurately determined? <i>(Must be the greater of the following: -For substances in a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity. -For substances in pipes, the greatest amount in a pipe, taking into account administrative controls that limit the maximum quantity.)</i>			459.95366(3)		
iv. Was the end point distance(s) accurately determined? <i>(No gross mismatch between the release quantity and endpoint distance)</i>			459.95366(12)		
Is documentation maintained of the following?			459.95376(3)		
v. The current estimate of population potentially affected?			459.9537(5)		
vi. The current list of environmental receptors potentially affected?			459.95372(4)		
vii. The data used to estimate population and environmental receptors potentially affected?			459.95376(3a)(3)		

Response Code (Point Valve): Y = Yes (1), N = No (0), NA = Not Applicable (Not Scored), U = Undetermined (0), P = Partially Satisfied (½), NR = Not Reviewed (Not Scored), R = Reviewed (1)

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viii. A description of the topography assumed? ( <i>Urban for terrain with many obstacles in the immediate area, including buildings and trees; Rural for generally flat and unobstructed terrain with no buildings in the immediate area</i> )	459.95364(5)	
ix. A description of the meteorological conditions assumed? ( <i>wind speed, atmospheric stability, ambient temperature and humidity</i> )	459.95364(2) 459.95364(3)	
x. A description of the scenarios identified? ( <i>including the vessel or pipeline, substance, and release conditions selected</i> )	459.95376(1a)	
xi. The estimated quantity released, release rate and duration of release?	459.95376(3a)(1)	
xii. The methodology used to determine the distance to the endpoints?	459.95376(3a)(2)	
xiii. A description of any administrative controls that were assumed to limit the quantity of the substance which would be released?	459.95376(1b)(1)	
xiv. A description of any active or passive mitigation that was assumed to limit the quantity of the substance which would be released? ( <i>Active mitigation can only be considered in alternative release scenarios</i> )	459.95376(1b)(1)	
xv. The anticipated effect of the controls and mitigation on the release quantity and rate?	459.95376(1b)(2)	
xvi. The reasons why the assumptions and parameters for the scenario(s) were selected?	459.95376(1b)(3)	
xvii. Verification that the active and passive mitigation systems are designed to remain functional under the conditions of the release scenarios?	459.95376(3b)	
<b>Notes/Comments Pertaining to Responses to Questions under Issue 1):</b>		
<b>2) ALTERNATIVE RELEASE SCENARIOS</b>	<b>NAC Ref.</b>	<b>Resp. Code</b>
<i>Item #2 Completion Score – Weighted 40%</i>	<b>x / 21 = xx%</b>	
i. Was the correct chemical(s) chosen?	459.95364	
ii. Was an appropriate amount of scenarios analyzed? ( <i>At least one for each toxic, at least one for all flammables</i> )	459.95368(1)	
iii. Has a scenario(s) been selected that is more likely to occur than the worst-case scenario and will reach an endpoint off site?	459.95368(3)	
iv. If applicable, were each of the following considered?	459.95368(4)	

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a. A transfer hose release because of splits or sudden uncoupling of the hose.		459.95368(4a)	
b. Process piping releases because of a failure at a flange, joint, weld, valve and valve seal, drain or bleed.		459.95368(4b)	
c. A process vessel or pump release because of a crack or a failure of a seal, drain, bleed or plug		459.95368(4c)	
d. A vessel overfill and spill, or over pressurization and vent through a relief valve or rupture disc.		459.95368(4d)	
e. A shipping container being mishandled and thereby breaking or is punctured leading to a spill).		459.95368(4e)	
v. Were accidental releases and incidents that were investigated considered when selecting an alternative release scenario(s)?		459.95368(7a)	
vi. Was the process hazard analysis considered when selecting an alternative release scenario(s)?		459.95368(7b)	
vii. Was the release quantity(s) accurately determined? ( <i>No gross mismatch between the process and release quantity/rate/duration</i> )		459.95368(3) 459.95368(4)	
viii. Was the end point distance(s) accurately determined? ( <i>No gross mismatch between the release quantity and endpoint distance</i> )		459.95368(5)	
Is documentation maintained of the following?		459.95376(3)	
ix. The current estimate of population potentially affected?		459.9537(5)	
x. The current list of environmental receptors potentially affected?		459.95372(4)	
xi. The data used to estimate population and environmental receptors potentially affected?		459.95376(3a)(3)	
xii. A description of the topography assumed? ( <i>Urban for terrain with many obstacles in the immediate area, including buildings and trees; Rural for generally flat and unobstructed terrain with no buildings in the immediate area</i> )		459.95364(5)	
xiii. A description of the meteorological conditions assumed? ( <i>wind speed, atmospheric stability, ambient temperature and humidity</i> )		459.95364(2) 459.95364(3)	
xiv. A description of the scenarios identified? ( <i>including the vessel or pipeline, substance, and release conditions selected</i> )		459.95376(2)	
xv. The estimated quantity released, release rate and duration of release?		459.95376(3a)(1)	

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xvi. The methodology used to determine the distance to the endpoints?	459.95376(3a)(2)	
xvii. A description of any administrative controls that were assumed to limit the quantity of the substance which would be released?	459.95376(2b)(1)	
xviii. A description of any active or passive mitigation that was assumed to limit the quantity of the substance which would be released?	459.95376(2b)(1)	
xix. The anticipated effect of the controls and mitigation on the release quantity and rate?	459.95376(2b)(2)	
xx. The reasons why the assumptions and parameters for the scenario(s) were selected?	459.95376(2b)(3)	
xxi. Verification that the active and passive mitigation systems are designed to remain functional under the conditions of the release scenarios?	459.95376(3b)	
<b>Notes/Comments Pertaining to Responses to Questions under Issue 2):</b>		
<b>3) HAZARD ASSESSMENT UPDATES</b>	<b>NAC Ref.</b>	<b>Resp. Code</b>
<i>Item #3 Completion Score – Weighted 20%</i>	<b>x / 2 = xx%</b>	
i. Has the off-site consequence analyses been reviewed and updated within the last 5 years?	459.95374(1)	
ii. If there has been a change in the covered process, the quantity of the covered substance, or any other change that might reasonably be expected to increase or decrease the distance to the endpoint, has a revised analysis been prepared?	459.95374(2) 459.95374(3)	
<b>Notes/Comments Pertaining to Responses to Questions under Issue 3):</b>		
<b>General On-Site Inspection Notes/Comments:</b>		



<b>B. ON-SITE INSPECTION</b>		
<b>1) DOCUMENTATION VERIFICATION</b>	<b>NAC Ref.</b>	<b>Resp. Code</b>
<i>Item #1 Completion Score – Weighted 50% of Part B</i>		<b>x / 3 = xx%</b>
i. Is current documentation maintained on site for the worst-case release scenario, as described in Item 1) Part A?	459.95376	
ii. Is current documentation maintained on site for the alternative release scenario, as described in Item 2) Part A?	459.95376	
iii. Have there been any changes in the covered process, the quantity of the covered substance, or any other change that might reasonably be expected to increase or decrease the distance to the endpoint? If so, has a revised analysis been prepared?	459.95374(2) 459.95374(3)	
<b>Notes/Comments Pertaining to Responses to Questions under Issue 1):</b>		
<b>2) INFORMATION VERIFICATION</b>	<b>NAC Ref.</b>	<b>Resp. Code</b>
<i>Item #2 Completion Score – Weighted 50% of Part B</i>		<b>x / 4 = xx%</b>
i. Does process equipment exist as described in the Hazard Assessments?	459.95376	
ii. Do administrative controls exist and function as described in the Hazard Assessments?	459.95376	
iii. Does any active or passive mitigation exist and function as described in the Hazard Assessments?	459.95376	
iv. Do the public and environmental receptors in the area appear to match the Hazard Assessments?	459.9537 459.95372	
<b>Notes/Comments Pertaining to Responses to Questions under Issue 2):</b>		
<b>General On-Site Inspection Notes/Comments:</b>		