***Overarching Category Statements***

**Category 1**

**Chemical Hazard:**

ATSDR concludes that [SUBSTANCE/PATHWAY. Describe the pathway – drinking, breathing, eating, etc.] for [TIME PERIOD. List the time period – less than a year, less than two weeks, or two weeks or less] at/in [PLACE] could harm people’s health. This is an urgent public health hazard.

**Physical Hazard:**

ATSDR concludes that [PHYSICAL HAZARD. Describe physical hazard] at/in [PLACE] could harm people’s health. This physical hazard is an urgent public health hazard.

**Category 2**

**Chemical Hazard:**

ATSDR concludes that [SUBSTANCE/PATHWAY. Describe the pathway – drinking, breathing, eating, etc.] for [TIME PERIOD. List the time period **–** a year or longer] at/in[PLACE] could harm people’s health. The following optional statement may be added for this category: “This is a public health hazard.”

**Physical Hazard**:

ATSDR concludes that [PHYSICAL HAZARD. Describe physical hazard] at/in [PLACE] could harm people’s health. The following optional statement may be added for this category: “This

physical hazard is a public health hazard.”

**Category 3**

ATSDR cannot currently conclude whether [SUBSTANCE/PATHWAY. Describe the pathway – drinking, breathing, eating, etc.] at/in [PLACE] could harm people’s health. The following optional statements may be added for this category: (1) “The reason for this is [add information why data will never be available]” or (2) “The information we need to make a decision is not available. We are working with [specifyagencies] togather the needed information.”

**Category 4**

ATSDR concludes that [SUBSTANCE/PATHWAY. Describe the pathway – drinking, breathing, eating, etc.] at/in [PLACE] is not expected to harm people’s health. The following optional phrase may be added to the end of the sentence for this category: “because [state reason].” Or, the following optional statement may be added for this category: “The reason for this is [state reason].”

Note: There are two options for Category 4 – exposure with further action or without further action.

**Category 5**

ATSDR concludes that the [SUBSTANCE/PATHWAY] will not harm people’s health. The following optional phrase may be added to the end of the sentence for this category: “because people have not been [describe the pathway – drinking, breathing, eating, etc.]” Or, the following optional statement may be added for this category: “The reason for this is that people have not been [describe the pathway – drinking, breathing, eating etc.]”

**Sample Hazard Conclusion Category Text**

**Example 1.**

**Category 1—chemical hazard**

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| --- | --- |
| **INTRODUCTION**  | In the Yakliske community, ATSDR’s purpose is to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent people from coming into contact with harmful toxic substances. |
| **CONCLUSION**  | **ATSDR concludes that breathing mercury vapor for two weeks or less in the indoor air at XYX School could harm people’s health. This is an urgent public health hazard.** |
| **BASIS FOR DECISION**  | Mercury vapor was found in the school’s indoor air at levels known to cause harmful health effects. Breathing mercury vapor, at the levels found in the school, can damage the nervous system and cause tremors, irritability, insomnia, and diminished short-term memory. |
| **NEXT STEPS**  | To protect students and faculty:1. The XYX school board will close the school right away. 2. During April 23rd – April 30th, EPA will clean or dispose of all mercury- contaminated items within the school. 3. ATSDR will send fact sheets and health information on mercury vapor to the parents of students at the XYX School, to the school board, and to health care providers in the community. 4. Before students and faculty return, EPA will work with the school board to ensure that mercury vapor in the school’s indoor air is at a safe level.  |
| **FOR MORE INFORMATION** | If you have concerns about your health, as it relates to mercury vapor, you should contact your health care provider. You can also call ATSDR at 1-800-CDC-INFO and ask for information on the XYX School site.  |

Example 2.

**Category 2—chemical hazard that includes optional statement “This is a public health hazard.”**

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| **INTRODUCTION** | In the Yakliske community, ATSDR’s top priority is to ensure that the community has the best information possible to safeguard its health.  |
| **CONCLUSION**  | **ATSDR concludes that touching, breathing or accidentally eating lead and arsenic in soil or dust for a year or longer in Yakliske residential yards could harm people’s health. This is a public health hazard.** |
| **BASIS FOR DECISION** | Soil is contaminated with lead and arsenic in Yakliske residential yards located near the former XYZ Smelter site. Children who play in these yards can be exposed to lead and arsenic by putting soiled hands or toys in their mouth or by breathing or eating dust from these yards. Some children may intentionally eat the soil. People could also be exposed to lead and arsenic by eating with unwashed hands or eating unwashed fruits or vegetables grown in these yards. Breathing, touching or swallowing lead early in life can impair development of the brain and cause a decrease in IQ. Daily contact with lead in the soil in Yakliske residential yards for a year or longer could cause harmful health effects. Breathing, touching, or swallowing arsenic over many years may increase the risk of harmful effects to the skin as well as certain cancers. Daily contact with arsenic in the soil in Yakliske residential yards is associated with a low increased risk of developing dermal effects and cancer. |
| **NEXT STEPS**  | XYZ Smelter will work with EPA to develop a plan to remove contaminated soil from the surrounding residential yards within the next two years.In the interim, to protect residents:1. Parents should monitor their children’s behavior while playing outdoors to prevent their children from intentionally or inadvertently eating soil. 2. Parents should wash their children’s outdoor toys regularly.3. Adults and children should wash their hands before they eat. 4. Residents should wash all homegrown vegetables before they are eaten. 5. If you think you or your child has come in contact with lead, ask for a blood lead-level test from your health care provider.  |
| **FOR MORE INFORMATION** | If you have concerns about your health, as it relates to lead and arsenic, you should contact your health care provider. You can also call ATSDR at 1-800-CDC-INFO and ask for information on the XYZ Smelter site.  |

Example 3.

**Category 3—lack of data for current exposure conditions that includes optional statements**

“The information we need to make a decision is not available. We are working with [specify agencies] to gather the needed information.”

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| **INTRODUCTION**  | In the Yakliske community, ATSDR’s top priority is to ensure that the community has the best information possible to safeguard its health.  |
| **CONCLUSION**  | **ATSDR cannot currently conclude whether sulfur dioxide air emissions from the XYZ plant could harm people’s health. The information we need to make a decision is not available. We are working with the State of Zarizona** **to gather the needed information.**  |
| **BASIS FOR CONCLUSION** | In order to reach a conclusion, ATSDR needs outdoor air monitoring data for sulfur dioxide levels during different times of the day and week in the community surrounding the plant. These data are not currently available. |
| **NEXT STEPS**  | We are taking the following actions:* ATSDR is working with the State of Zarizona to measure sulfur dioxide levels in the air in the community.
* The air monitoring data will be collected between the months of January to July 2009.

While we are gathering the information we need, if you have respiratory problems or are concerned about your health, here are some steps you can take to protect your health:* Check with your health care provider.
* As a precaution and until we have more information, asthmatics and persons with respiratory diseases should not exercise in the vicinity of the site.
* Visit [Toxic Substances Portal - Sulfur Dioxide](http://www.atsdr.cdc.gov/toxprofiles/tp.asp?id=253&tid=46) .

ATSDR will update the community when we have more information. |
| **FOR MORE INFORMATION** | If you have concerns about your health, as it relates to sulfur dioxide, you should contact your health care provider. You can also call ATSDR at 1-800-CDC-INFOR and ask for information on the XYZ site. |

Example 4.

**Category 3— lack of data for past exposure conditions that includes optional statement**

“The reason for this is [add information why data will never be available].”

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| **INTRODUCTION**  | In the Yakliske community, ATSDR’s top priority is to ensure that the community has the best information possible to safeguard its health.  |
| **CONCLUSION**  | **ATSDR cannot conclude whether past air emissions from the former XYZ Plant could have harmed people’s health. The reason for this is that no outdoor air monitoring data were collected to determine the levels of chemicals people were breathing in the past.**  |
| **BASIS FOR DECISION** | The XYZ Plant operated from 1995 through 2004. In order to reach a conclusion, ATSDR would have needed outdoor air monitoring data for chemical levels in the air in the surrounding neighborhoods. These data were not collected while the plant was operating. |
| **NEXT STEPS**  | Because the plant is no longer operating, no further public health activities are indicated. |
| **FOR MORE INFORMATION** | If you have additional concerns about your health, please call ATSDR at 1-800-CDC-INFO and ask for information on the XYZ Plant site. |

**Example 5.**

**Category 4—exposure without further action that includes optional phrase “because [state reason].”**

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| **INTRODUCTION** | In the Yakliske community, ATSDR’s purpose is to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent people from coming into contact with harmful toxic substances. |
| **CONCLUSION** | **ATSDR concludes that touching, breathing or accidentally eating zinc found in soil and dust at the XYZ site is not expected harm people’s health because zinc levels in soil are below levels of health concern.**  |
| **BASIS FOR DECISION**  | Zinc is an essential nutrient that is needed by the body. Although zinc is needed by the body for immune function and normal growth and development, too much zinc can be harmful. Children may be exposed to zinc in soil by putting their soiled fingers or toys in their mouths. In addition, residents may be exposed to zinc by unintentionally eating soil or breathing dust during recreational activities. When visiting or trespassing on the XYZ site, the amount of zinc that could get into an adult’s or child’s body by these activities is below a level that would harm their health. |
| **NEXT STEPS** | No public health actions are needed related to the XYZ site surface soil. |
| **FOR MORE INFORMATION** | If you have concerns about your health, you should contact your health care provider. You can also call ATSDR at 1-800-CDC-INFO and ask for information on the XYZ site.  |

**Example 6.**

**Category 4—exposure with further action that includes the optional statement “The reason for this is [state reason.]”**

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| **INTRODUCTION** | In the Yakliske community, ATSDR’s top priority is to ensure that the community has the best information possible to safeguard its health.  |
| **CONCLUSION** | **ATSDR concludes that drinking, touching, and breathing in volatile organic compounds (VOCs) found in private well water near the XYZ site are not expected to harm people’s health. The reason for this is that VOC levels are below levels of health concern.**  |
| **BASIS FOR DECISION**  | Past operating procedures at the XYZ site resulted in VOC releases to the groundwater. People can come in contact with groundwater when it is pumped to the surface to be used for drinking, showering, bathing, dishwashing, and other activities.Private wells in the Yakliske area provide water to homes. ATSDR finds that the VOC levels in these wells are below levels known to result in non-cancer harmful health effects. Also, ATSDR does not consider the VOC levels found in these wells to present an elevated cancer risk. However, because some VOC levels exceed their respective regulatory guidelines (e.g., MCLs) and some VOCs are potential chemical carcinogens, ATSDR considers it prudent to reduce contact with the VOC-contaminated groundwater.  |
| **NEXT STEPS** | * Within the next month, XYZ will install filters on all private wells that exceed MCLs.
* Residents should adequately maintain the newly installed filters.
* XYZ should continue monitoring potentially affected wells, with filters added when VOC levels exceed MCLs.
* A more permanent, long-term remedy for private well users should be sought (i.e., public water line extension).
 |
| **FOR MORE INFORMATION** | If you have concerns about your health, you should contact your health care provider. You may also call ATSDR at 1-800-CDC-INFO and ask for information on the XYZ site.  |

**Example 7.**

**Category 5—no exposure that includes the optional phrase “because people have not been [describe the pathway – drinking, breathing, eating etc.]”**

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| **INTRODUCTION**  | In the Yakliske community, ATSDR’s top priority is to ensure that the community has the best information possible to safeguard its health.  |
| **CONCLUSION**  | **ATSDR concludes that mercury vapors at the XYZ site will not harm people’s health because people have not been breathing the vapors.**  |
| **BASIS FOR CONCLUSION** | In 2008, EPA completely cleaned up the XYZ site, preventing anyone from coming into contact with mercury or its vapors.  |
| **NEXT STEPS**  | No public health actions are needed at the XYZ site.  |
| **FOR MORE INFORMATION** | If you have concerns about your health, you should contact your health care provider. You may also call ATSDR at 1-800-CDC-INFO and ask for information on the XYZ site.  |

**Example 8.**

**Multiple Pathways and Chemicals**

**Category 1 (chemical hazard) and Category 4 (exposure without further action)**

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| **INTRODUCTION**  | In the Yakliske community, ATSDR’s purpose is to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent people from coming into contact with harmful toxic substances. |
| **OVERVIEW** | **ATSDR reached two important conclusions about the XYX school in New Minglewood County, Zarizona.** |
| **CONCLUSION 1** | **ATSDR concludes that breathing mercury vapor for two weeks or less in the indoor air at XYX School could harm people’s health. This is an urgent public health hazard.** |
| **BASIS FOR DECISION**  | Mercury vapor was found in the school’s indoor air at levels known to cause harmful health effects. Breathing mercury vapor, at the levels found in the school, can damage the nervous system and cause tremors, irritability, insomnia, and diminished short-term memory. |
| **NEXT STEPS**  | To protect students and faculty:1. The XYX school board will close the school right away. 2. During April 23rd – April 30th, EPA will clean or dispose of all mercury- contaminated items within the school. 3. ATSDR will send fact sheets and health information on mercury vapor to the parents of students at the XYX School, to the school board, and to health care providers in the community. 4. Before students and faculty return, EPA will work with the school board to ensure that mercury in the school’s indoor air is at a safe level.  |
| **CONCLUSION 2**  | **ATSDR concludes that touching, breathing or accidentally eating lead and zinc found in soil or dust at the XYX School’s ball field are not expected to harm people’s health.** |
| **BASIS FOR DECISION**  | The ball field’s surface soil is frequently stirred up by athletes and other school children. However, the lead and zinc levels found in the soil are well below levels known to result in harmful health effects. Therefore, lead and zinc in soil are below a level that could harm people’s health.  |
| **NEXT STEPS** | No public health actions are needed related to the ball field’s surface soil. |
| **FOR MORE INFORMATION** | If you have concerns about your health, you should contact your health care provider. You may also call ATSDR at 1-800-CDC-INFO and ask for information on the XYX School site.  |

**Example 9.**

**Multiple Pathways and Chemicals**

**Category 1 (physical hazard), Category 4 (exposure with further action), and Category 4 (exposure without further action)**

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| **INTRODUCTION**  | In the Yakliske community, ATSDR’s top priority is to ensure that the community has the best information possible to safeguard its health.  |
| **OVERVIEW** | **ATSDR reached three important conclusions about the XYX Company site in New Minglewood County, Zarizona.** |
| **CONCLUSION 1**  | **ATSDR concludes that unexploded ammunition on the north portion of the XYX Company site could harm people’s health. This physical hazard is an urgent public health hazard.**  |
| **BASIS FOR DECISION**  | If triggered, unexploded ammunition located on the north portion of the site poses a danger of blowing up. Residents walking across the north portion of the site could suffer serious harm if they accidentally step on unexploded ammunition. |
| **NEXT STEPS**  | * Within two weeks, the XYX Company will post signs alerting the community to the danger of unexploded ammunition.
* The XYX Company will fence the north portion of the site within three months.
* People can safeguard their health by not walking across the north portion of the XYX site.
 |
| **CONCLUSION 2** | **ATSDR concludes that drinking and touching metals found in water from five private wells located south of the XYX Company site are not expected to harm people’s health.** |
| **BASIS FOR DECISION**  | Metals were detected in the groundwater under the southern portion of the XYX Company site. Although most of the Yakliske community receives drinking water from a public source, there are five private wells located south of the site. The metals found in these private drinking water wells are below levels known to result in harmful health effects.  |
| **NEXT STEPS** | **ATSDR wants to make sure the Yakliske community remains safe:** * The XYX Company will continue to monitor the movement of metals in the groundwater to ensure that metals in drinking water sources remain below levels of public health concern.
* Although you are safe from metals in the groundwater, if you still have concerns you can add a treatment system to your private well.
 |
| **CONCLUSION 3** | **ATSDR concludes that touching or accidentally eating metals found in soil at the XYX Company site are not expected to harm people’s health.** |
| **BASIS FOR DECISION**  | People engage in hunting, hiking, and other recreational activities on the south portion of the XYX Company site. Children may be exposed to metals in soil by putting their soiled fingers or toys in their mouths. In addition, residents may be exposed to metals by unintentionally eating soil or breathing dust during recreational activities. Although residents enjoy recreational activities on the south portion of XYX Company site, the amount of metals that could get into an adult’s or child’s body by these activities is below a level that would harm their health.  |
| **NEXT STEPS** | No public health actions are needed related to XYX site surface soil. |
| **FOR MORE INFORMATION** | If you have concerns about your health, you should contact your health care provider. You may also call ATSDR at 1-800-CDC-INFO and ask for information on the XYZ site.  |