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La Paz County Planning & Zoning Nine Member Commission 1112 Joshua Parker, AZ 85344

Don't Waste Arizona, Inc. (DWAZ) is a non-profit environmental organization dedicated to the protection and preservation of the environment in Arizona. DWAZ is especially concerned about environmental justice, emergency planning, toxic chemical exposure in communities, and air pollution issues. DWAZ is headquartered at 2934 West Northview Avenue, Phoenix, AZ 85051, and may be reached at (602) 810-4760. DWAZ has members in the affected area, and submits the following on behalf of its affected members.

DWAZ requests that all information herein be conveyed to the La Paz County Zoning and Planning Commission. The La Paz County Planning and Zoning Commission seems to act more like a secret Star Chamber as there is no public contact information and even the names of the Planning and Zoning Commission members seems to be held in secret. Compared to other counties in Arizona, this is unprecedented. To this end, DWAZ invokes its U.S. Constitutional rights. If this important information is not conveyed to the appropriate members of La Paz County, that will be construed as a Civil Rights violation of DWAZ's members. The right of petition is expressly set out in the First Amendment:

"Congress shall make no law ... abridging ... the right of the people ... to petition the Government for a redress of grievances." — from the First Amendment

# This document is in regards to the Alliance Metals facility, proposed to be located at 70050 HWY 60 Wenden AZ, with a request to zone heavy industrial uses (A secondary Aluminum smelter) onto a community that is currently zoned for residential/agricultural.

This is NOT a minor amendment to the comprehensive plan. This is a major modification/amendment to the comprehensive plan siting heavy toxic industrial uses in a residential/agricultural area that will forever change and impact the community with large amounts bio-accumulative pollution (metals, dioxins, and furans), truck traffic and large amounts of toxic chemicals that pose an immediate threat to the community upon release, accidental or otherwise.

An aluminum smelter is not "green." It's instead a heavy industrial, toxin-emitting smelter that produces hazardous waste in the form of aluminum salt cakes utilizing 40-year old technology. There is nothing "state of the art" about this smelter. Claims that it is "green" are "greenwashing."

**Greenwashing** is the practice of making an unsubstantiated or misleading claim about the environmental benefits of a product, service, technology or company practice and a discounting of actual adverse environmental impacts.

**Greenwashing** can make a company appear to be more environmentally friendly than it really is.

Siting a heavy industrial use that has nothing but a negative impact on the surrounding community SOLEY because the site has a natural gas line running through it and then abdicating public health and safety for convenience of a one-person company that has no record regarding these types of operations could reasonably be interpreted as gross negligence.

The proposed facility would also be an economic disaster for La Paz County. All other economic activities such as recreational uses, winter visitors and tourism, and agricultural will be severely and adversely impacted. Aluminum will be the particulate matter emitted from the Alliance facility. When it is deposited in soils, it has a toxic effect on plants. In the event of a chlorine gas spill or leak at the facility, or involving the transportation of the chlorine on La Paz County roads, the adverse economic effect will be even worse. Besides the people who would be outright killed by exposure to chlorine from a release, the people who live may very well have their health compromised by exposure to chlorine that damages their eyes, lungs, and respiratory systems.

Aluminum smelter jobs listed on Indeed declare the jobs "Unpleasant/hazardous Environment." A review of other sources indicates:

Wikipedia - **Smelting** is a process of applying heat to <u>ore</u> in order to extract a base <u>metal</u>. It is a form of <u>extractive metallurgy</u>. It is used to extract many metals from their ores, including <u>silver</u>, <u>iron</u>, <u>copper</u>, and other <u>base metals</u>. Smelting uses heat and a chemical <u>reducing agent</u> to decompose the ore, driving off other elements as gases or <u>slag</u> and leaving the metal base behind. The reducing agent is commonly a source of <u>carbon</u>, such as <u>coke</u>—or, in earlier times, <u>charcoal</u>.

The carbon (or carbon monoxide derived from it) removes <u>oxygen</u> from the ore, leaving the elemental metal. The carbon thus oxidizes in two stages, producing first <u>carbon monoxide</u> and then <u>carbon dioxide</u>. As most ores are impure, it is often necessary to use <u>flux</u>, such as <u>limestone</u>, to remove the accompanying rock <u>gangue</u> as slag.

Plants for the <u>electrolytic</u> reduction of <u>aluminum</u> are also generally referred to as <u>aluminum smelters</u>.

Labourers working in the smelting industry have reported <u>respiratory illnesses</u> inhibiting their ability to perform the physical tasks demanded by their jobs

Sjöstrand, Torgny (12 January 1947). "Changes in the Respiratory Organs of Workmen at an Ore Smelting Works1". Acta Medica Scandinavica. **128** (S196): 687–699. <u>doi:10.1111/j.0954-6820.1947.tb14704.x</u>. <u>ISSN 0954-6820</u>

https://journals.lww.com/joem/FullText/2014/05001/Respiratory\_Disorders\_in\_Al uminum\_Smelter\_Workers.9.aspx

# **Respiratory Disorders in Aluminum Smelter Workers**

Kongerud, Johny MD, PhD; Søyseth, Vidar MD, PhD

Journal of Occupational and Environmental Medicine: <u>May 2014 - Volume 56 -</u> <u>Issue - p S60–S70</u>

# doi: 10.1097/JOM.000000000000105

Objectives: Summarizing the knowledge status, including the morphology, possible etiological factors, and clinical expression of aluminum potroom asthma and chronic obstructive pulmonary disease related to aluminum potroom exposure.

Methods: A review of the literature from the last two decades as it appears in PubMed.

Results: There is substantial evidence for the existence of potroom asthma, although the incidence seems to decline over the last 10 years. Increased mortality from chronic obstructive pulmonary disease and longitudinal decline in forced expiratory volume in the first second of expiration has been shown in aluminum potroom workers. Morphological manifestations in bronchial biopsies and the inflammatory markers NO and eosinophils in airway tissue and blood are consistent with asthma in general. The causative agent(s) is (are) not known.

(See Exhibit 1)

# **Pollution:**

This proposed facility utilizes "Unclean Charge" as a secondary Aluminum smelter. This is used aluminum scrap, where in Aluminum Dross is considered to be hazardous waste because of ignitability and production of ammonia gasses.

[See: <u>https://www.ecfr.gov/cgi-bin/text-</u> idx?SID=ce0006d66da40146b490084ca2816143&mc=true&node=pt40.26.261&rg n=div5#se40.28.261\_13

40 CFR §261.3 Definition of hazardous waste.

(a) A solid waste, as defined in §261.2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under §261.4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in subpart C of this part. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under \$261.4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under subpart C is a hazardous waste only if it exhibits a characteristic that would not have been

exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in table 1 to §261.24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant concentration for any contaminant exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

(ii) It is listed in subpart D of this part and has not been excluded from the lists in subpart D of this part under §§260.20 and 260.22 of this chapter.

See:

Subpart C-Characteristics of Hazardous Waste

- 40 CFR <u>§261.20</u> General.
- 40 CFR §261.21 Characteristic of ignitability.
- 40 CFR §261.22 Characteristic of corrosivity.
- 40 CFR <u>§261.23</u> Characteristic of reactivity.
- 40 CFR §261.24 Toxicity characteristic.]

https://www.researchgate.net/publication/325996337\_Hazardous\_aluminum\_dross \_characterization\_and\_recycling\_strategies\_A\_critical\_review; https://www.ncbi.nlm.nih.gov/pubmed/29957419; https://www.sciencedirect.com/science/article/pii/S0304389412000957 ]

An air pollution permit from ADEQ means nothing. Air pollution permits are for making pollution legal by attempting to limit (or control) the amount of pollution released. An air pollution permit does not make the facility's emissions safe or harmless because, after all, it is pollution by definition that is being controlled or limited. It's just not as bad as it could/would be without the permit. Pollution permits do not protect the environment. This is easily evidenced by the metal smelters across Arizona that also have air permits from ADEQ and the communities are devastated with illness, cancers and enormous losses in property values.

The facility will emit over 10 tons of PM10 and PM 2.5 of metal particulate pollution every year. So, in ten years, 100 tons of bio-accumulative toxins will be

dumped in the community rendering the surrounding agricultural areas useless from these toxins, including dioxins and furans that will be dispersed into the community, as well as aluminum into the soil. The surrounding tree farms and other adjoining properties will be impacted by the some of the most toxic emissions known to man.

There will be HUGE amounts of salt cake piled on-site. The ADEQ allows Opacity of emissions from any fugitive dust non-point source shall not be greater than 40%. Yet, the federal standard is 20%, which should illuminate how the ADEQ's permitting subverts federal laws and regulations. This 40% opacity standard in the facility's permit means there could be a constant cloud of fugitive emissions over the community and there would be no air permit violation. This is outrageous and would destroy the community surrounding this heavy industrial use spot zoned in a residential/agricultural area. Make no mistake, this cloud of fugitive emissions would be comprised of metal particles that are toxic chemicals, with dioxins and furans and other contaminants clinging to the aluminum particulate matter.

The applicant claims ADEQ routinely monitors the site. NOT TRUE!!!! The applicant knows that the facility will be self-monitored like every other air pollution permit in the state. According to the Applicant's draft air pollution permit that was submitted to ADEQ, the facility will not even undergo its initial testing for up to six months after the issuance of the permit, and then only every two years after that!! There will be NO "routine" monitoring by either the county or state, this is just a pile of deceptive falsehoods

From Applicant's Air Permit from ADEQ:

"Part VI. Annual emission inventory questionnaire A. The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire."

That's it. There is NO independent monitoring, NO inspections, just an annual self-reporting (trust us) emissions inventory.

The "Industrial Planned Development "that the facility requests will result in NO additional regulation and control over the operation. Only the State of Arizona, Maricopa County, Pinal County and Pima County have been delegated authority by US EPA to regulate air pollution.

All air permits are not equal! This false information being disseminated by the Rose Law Firm is simply not true. No other facility in La Paz county releases

aluminum particulate matter, dioxins and furans, or uses huge amounts of liquid chlorine.

# Arizona regulatory failures:

The following is a short list of some of the many, many examples of how the ADEQ has failed the public. The ADEQ has a long and sordid history regarding issuing air pollution permits and failing to follow laws.

- 1) In December 1992, the ADEQ issued a permit to the Phoenix Cement facility in Clarkdale to burn used tires as a fuel. Hundreds of local residents had attended the air permit public hearing in summer 1992 and vocally opposed the proposed permit. ADEQ waited until almost Christmas 1992 to issue the permit, following its long history of issuing contested air permits at Christmastime when the unsuspected public would be distracted. The permit was challenged in court, and in 1993 the court ruled the permit was entirely illegal, and revoked the air permit.
- 2) The copper smelter in Hayden operated for many years releasing large amounts of lead, arsenic, and other heavy metals into the ambient air. It also, at night, would bypass the smokestack and release the emissions at ground level. A new federal regulation that became a final rule in 2002 required these types of smelters to add MACT-Maximum Available Control Technology to scrub out lead and arsenic from the emissions, yet ADEQ still allowed the smelter in Hayden to operate using the less stringent controls, and even tried to issue a new permit in 2017 to allow the same sort of smelter permit without the federally-required MACT. Don't Waste Arizona testified against the permit, then encouraged the USEPA to bring an enforcement action to require the MACT controls. EPA did indeed enforce. ASARCO, the facility owner/operator, was required to install the \$150 million MACT technology, and has just recently, in 2019, received its new air pollution permit that requires this.

Also, when EPA began its investigation into the Hayden smelter, it found high levels of lead and arsenic in the soils of Hayden and Winkleman, and the soils for 250 homes in the affected area had to be removed and replaced. Further, the federal Agency for Toxic Substances and Disease Registry sampled the blood of Hayden and Winkleman children and found their blood had the highest levels of lead of any children in the United States of America. EPA conducted extensive air monitoring in Hayden and Winkleman during its investigation, and found high levels of chromium, which ADEQ didn't even acknowledge was being emitted. The levels of lead in the air that were found caused the EPA to designate the air as nonattainment for lead, which means that the air in Hayden and Winkleman was so full of lead particulates above the federal standards for allowable lead concentrations that no more lead could be added. ADEQ, in decades of giving air permits to the ASARCO Hayden smelter, had never, ever monitored the air for lead. Not ever.

- 3) In 2001, ADEQ and ADHS were sued for fraud when they claimed that a 2000 chemical fire in South Phoenix at Central Garden, a warehouse facility with pool chemicals, pharmaceuticals, and fertilizer had not released toxics into the environment when it exploded and burned for hours. ADEQ hid the samples of water runoff from the firefighting that occurred that showed high levels of acids, pesticides, and other contaminants. ADEQ and ADHS settled out of court for \$300,000 rather than litigate. The company filed reports later indicating that seven toxic chemicals were released in the fire that were so serious that the National Response Center was required to be notified at the time of the explosion and fire.
- 4) In 2007, DWAZ filed a civil rights complaint against the ADEQ with the EPA Office of Civil Rights. The complaint alleged:

"The Arizona Department of Environmental Quality (ADEQ) has violated Title VI of the Civil Rights Act of 1964 and the Environmental Protection Agency's ("EPA") implementing regulation, 40 C.F.R. § 7.35, by discriminating on the basis of race in its administration of its air pollution program. More specifically, the ADEQ has issued permits for portable sand and gravel outfits (aggregate mining), cement batch plants, and asphalt batch plants to operate in Maricopa County and especially in areas along the Salt River bed from 32<sup>nd</sup> Street to 91<sup>st</sup> Avenue in the Phoenix area, which is adjacent to an overwhelmingly ethnic minority population that is disproportionately and adversely affected by documented high levels of particulate matter pollution. The ADEQ yet has failed to administrate, manage and/or maintain a system whereby these same portable permitted facilities are monitored, including a systematic lack of inspections of these permitted facilities and a systematic lack of emissions reports of these permitted facilities. This exacerbates the already severely polluted air, which does not meet federal NAAAQS for particulate matter, a situation so bad that the EPA has required that Maricopa County devise a plan to reduce particulate matter emissions by 5% per year until there is compliance with federal NAAAQS for particulate matter. The emissions from these portable facilities operating in areas along the Salt River bed from 32<sup>nd</sup> Street to 91<sup>st</sup> Avenue in the Phoenix area is unknown, despite many observations and complaints by citizens that these facilities are not in compliance and emitting illegal amounts and volumes of dust and particulate matter. The failure of ADEQ to inspect these facilities and to require emissions reports of particulate matter from these facilities has a disparate impact on ethnic minority communities already disproportionately and adversely affected by high levels of ambient air pollution by particulate matter. Further, by failing to properly administrate its air pollution program in this manner, the ADEQ prevents meaningful and effective steps to reduce pollution in these areas by itself and others."

In 2017, Region IX EPA forced ADEQ to fix these issues, which it did not do voluntarily despite its clear obligations. Due to the resolution of these decades-long allegations, the DWAZ civil rights complaint to the EPA Office of Civil Rights was finally dismissed as resolved at that point.

5) In 1995, the ADEQ issued an air pollution permit to the Maricopa Refining Company to construct and operate a petroleum refinery. The refinery shared a fence line with the Mobile Elementary School, despite the fact that the emissions from the refinery would be dangerous to the children's health, as well as the school staff. Fortunately, DWAZ was able to convince the owners/operators to not operate the refinery, and it was never built and operated. The refinery wanted to site at the location because a pipeline of crude oil came through that location. (Similar to Alliance wanting to operate at the Wenden site because of the natural gas pipeline there.)

There are many, many more examples, but these five examples seem very much on point, and illustrate the type of regulatory failure and oversight that La Paz County could expect if the Alliance Metals facility proceeds.

# Jobs created are exaggerated:

The facility claims it will have 100 employees, but this is very unlikely. A search of similar facilities in the Toxics Release Inventory database (This Alliance Aluminum facility would have reporting requirements under the Toxics Release Inventory.) shows just one, the Nikkei MC Aluminum America Inc. facility in Columbus, IN. It has 80 employees, but it is a far larger facility than the Alliance facility. The Nikkei facility is a major source of pollution requiring it get a Title V (federal level) permit, except it has decided to operate as a synthetic minor by deliberately agreeing to limit its hours of operation and production to emit less pollution. If the Alliance facility is going to have more employees than this Indiana facility, it is either going to become a major source and major polluter as defined by federal laws, or it isn't telling the truth.

In order to be required to file reports under the Toxics Release Inventory, a facility must have ten employees or more. Since there is only one facility that smelts aluminum that has ten or more employees, the other aluminum smelting facilities don't have at least ten employees or are not reporting as required under the Toxics Release Inventory. DWAZ suspects the former.

# **Hazardous Waste Issues**

The Salt Cake produced as a byproduct of this smelter operation is considered hazardous waste and can only be disposed of in a lined landfill with a leachate system.

# Salt cake in landfills:

# http://cdn.intechweb.org/pdfs/11848.pdf

https://cfpub.epa.gov/si/si\_public\_record\_report.cfm?Lab=NRMRL&dirEntryId=3 11174

# **Secondary Aluminum Processing Waste: Salt Cake** Characterization and Reactivity

# Contact

# National Risk Management Research Laboratory

https://www.epa.gov/aboutepa/about-national-risk-management-research-laboratory-nrmrl

# **Citation:**

Tolaymat, T. AND X. Huang. Secondary Aluminum Processing Waste: Salt Cake Characterization and Reactivity. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-15/109, 2015.

#### **Impact/Purpose:**

The specific objectives of the study were to identify and characterize the metal constituents in salt cake, investigate the leaching behavior of metals from salt cake following its reactions with water, identify the dominant crystalline mineral phases in salt cake, evaluate factors that impact the reactivity of salt cake, and evaluate salt cake reactivity with water.

#### **Description:**

Thirty-nine salt cake samples were collected from 10 SAP facilities across the U.S. The facilities were identified by the Aluminum Association to cover a wide range of processes. Results suggest that while the percent metal leached from the salt cake was relatively low, the leachable metal content may still pose a contamination concern and potential human and ecological exposure if uncontrollably released to the environment. As a result, salt cake should always be managed at facilities that utilize synthetic liner systems with leachate collection (the salt content of the leachate will increase the hydraulic conductivity of clay liners within a few years of installation). The mineral phase analysis showed that various species of aluminum are present in the salt cake samples with a large degree of variability. The relative abundance of various aluminum species was evaluated but it is noted that the method used is a semiquantitative method and as a result there is a limitation for the data use. The analysis only showed a few aluminum species present in salt cake which does not exclude the presence of other crystalline species especially in light of the variability observed in the samples. Results presented in this document are of particular importance when trying to understand concerns associated with the disposal of salt cake in Municipal Solid waste (MSW) landfills. From the end-oflife management perspective, data presented here suggest that salt cake should not be size reduced before disposal. Also, care should be taken not to size reduce it after disposal by compacting it with heavy bulldozers. The MSW decomposition process is exothermic and as a result MSW landfill temperatures are typically greater than 37°C and may reach 50°C or greater. The elevated temperatures present in most MSW landfills can be conducive and could initiate salt cake

reactions that otherwise may not take place. Furthermore, elevated temperatures can increase the rate of the salt cake reaction which further propagate the salt cake reaction. Even outside of MSW landfills, once a salt cake reaction starts, it may self-propagate and increase the rate at which the reaction occurs. While the heat generation potential per gram of salt cake sample is a sample specific parameter, the results presented herein suggest that higher environmental temperatures tend to intensify the salt cake reaction. At elevated temperatures encountered in MSW landfills, elevated levels of H<sub>2</sub> gas may be generated as a result of salt cake reactivity and will be of concern. Hydrogen is an explosive gas and can potentially cause fires. Hydrogen is even of greater concern if generated in MSW landfills. Apart from being a fire hazard when mixed with CH<sub>4</sub>, landfill gas collection systems are not designed to handle H<sub>2</sub> since MSW landfill gas generally consists of  $CH_4$  and  $CO_2$  at ~ 50/50 ratio. Like hydrogen, methane is an explosive gas and care must be taken if salt cake reacts with liquids. But unlike hydrogen, in an MSW landfill, the gas collection system is design to handle methane gas which is a greenhouse gas generated during the anaerobic decomposition of MSW. The level of NH<sub>4+</sub> resulting from the salt cake reaction is significantly lower as compared to the levels found in landfills and as a result the ammonia generated from salt cake should not have a detrimental impact on the performance of MSW landfills. From a human health perspective, the concentration of ammonia gas resulting from the salt cake reaction was relatively high and can potentially be of concern.

#### **URLs/Downloads:**

HTTP://NEPIS.EPA.GOV/EXE/ZYPDF.CGI?DOCKEY=P100NRFR.PDF

**Record Details:** 

Record Type: DOCUMENT (PUBLISHED REPORT/REPORT) Product Published Date: 05/01/2015 Record Last Revised: 09/19/2017 OMB Category: Other Record ID: 311174

(See Exhibit 2&3)

Because this facility has the potential to take in Aluminum Dross which is considered hazardous and creates a salt cake that is hazardous, it is DWAZ's contention that this facility should be required to have a Hazardous Waste Permit for the disposal and generation of hazardous waste.

This spot zoning for a one-person company out of Florida that has no experience in Aluminum smelting will spawn endless litigation:

# Future Superfund site with the County as a Principally Responsible Party.

When the large amount of hazardous salt cake wash down the Centennial Wash from the numerous 100 year floods and a result of the property sitting on a flood plain, with an ever developing ground subsidence issue (Exhibit 4 & 5), La Paz County could be held liable just as the City of Phoenix is being held liable for toxic contaminated groundwater where the city only delivered the water though it was not polluted by the city's chemicals, they delivered the water and sited the facilities and allowed the pollution problems to develop over time.

If, over time, an unusual number of cancers and/or other illnesses starts taking place, toxic tort lawsuits will be generated and the County that enables this may be held liable for spot zoning a heavy industrial user in a residential/agricultural zoned area.

If a release of Chlorine occurs, the County will again be held liable via toxic tort litigation for bringing this unwanted hazard into the community. If a vulnerable person such as a child or elderly person or someone who has a precondition such as asthma is impacted, the County along with the Company could be held liable.

# **Environmental racism:**

The low-income, minority community of Wenden meets the very definition of Environmental racism:

Environmental racism refers to the institutional rules, regulations, policies or government and/or corporate decisions that deliberately target certain communities for locally undesirable land uses and lax enforcement of zoning and environmental laws, resulting in communities being disproportionately exposed to toxic and hazardous waste based upon race. Environmental racism is caused by several factors, including intentional neglect, the alleged need for a receptacle for pollutants in urban areas, and a lack of institutional power and low land values of people of color. It is a well-documented fact that communities of color and lowincome communities are disproportionately impacted by polluting industries (and very specifically, hazardous waste facilities) and lax regulation of these industries.

http://greenaction.org/what-is-environmental-justice/

# **Chlorine issues:**

Chlorine is classified under the Emergency Planning and Community Right to Know Act (EPCRA) as an Extremely Hazardous Substance (EHS) (See Exhibit 6 & 7)

In both the documents submitted to La Paz County and the ADEQ, Alliance Metals cites the utilization of an 30,000-gallon liquid Chlorine tank. This is an extraordinary amount of an EHS chemical. Modeling release from ALOHA, the EPA approved modeling program for chemical releases, and the program used by emergency responders around the entire country, show an extreme hazard to the community involving a release. A catastrophic release would wipe out the whole town, as in everyone dies. (See Exhibit 8). Even a small release would have serious impacts. (See Exhibit 9)

A DWAZ representative was an investigator in 2005 at the worst chlorine disaster in 20 years at Graniteville, SC, where ten people died. See <u>http://www.chemicalspill.org/railcar.html</u> for that review of the hazmat response. Fortunately, in Graniteville, it was not a catastrophic release of chlorine. A railcar carrying 90 tons of chlorine cracked open, but the hole frosted over when the chlorine vented, only releasing a smaller amount and not a complete release of the chlorine. The New York State Fire Training Academy had that same DWAZ representative as the keynote speaker due to this post at their next training conference.

The volunteer fire department that would respond to an incident involving chlorine at the proposed facility in Wenden is not trained or equipped for this, and they would be legally constrained against responding due to their lack of hazmat certification and lack of proper equipment. To properly equip, train, and certify them would be expensive, costing far more than any paltry financial benefit to La Paz County that this facility could offer. There wouldn't really be anything that anyone could do in the event of a catastrophic release anyway other than to order body bags. A siren alert system could be put in place at a considerable cost, with community hazmat drills akin to the duck and cover campaign regarding the threat of atomic warfare in the 1950s and 1960s, but in the event of a catastrophic release or leak of chlorine at the Alliance facility, there wouldn't be a way to timely evacuate in time or to go in and rescue everyone or anyone. There could be shelter in place strategies, but if a large enough amount of chlorine were to be released, it would eventually infiltrate into the homes where people are being sheltered and harm their lungs and perhaps even kill them. Chlorine, when inhaled, turns into acid and burns the mucous membranes. It also makes it impossible to see because it burns the eyes when it contacts them, so once the cloud of chlorine has arrived, there's no way to flee. Any people who would evacuate outside into the cloud of chlorine during a release would all likely die a grisly death, quickly.

With a 30,000-gallon liquid Chlorine tank this facility would qualify as a Risk Management Facility under the federal Risk Management Program as the federal consequence analysis program indicates that there would be consequences in a worst-case scenario that would extend up to 25 miles. See <u>https://cdxnodengn.epa.gov/cdx-rmp-maintain/action/rmp-comp</u>

One of the requirements for an RMP facility is that they are required to communicate to the public the worst-case consequence analysis to the public that could be affected. Unfortunately, this is not done until the facility is up and running and won't that be a massive embarrassment to La Paz County and the politicians who site this dangerous facility next to residents and an elementary school. All this will come into the light in the event of any litigation actions.

In all of its correspondence to the La Paz County and the State ADEQ, Alliance Metals has only listed the 30,000-gallon tank as being utilized. This is the official tank size Alliance Metals has listed in all its applications. Anything else is unsubstantiated speculation.

This heavy industrial 30,000-gallon EHS chemical using facility should not be sited within 25 miles of any residence, livestock or food source. To knowingly do otherwise would endanger the public and could easily be construed as gross negligence on the part of La Paz County.

Even small releases can have a significant impact. Levels that are considered safe for chemical exposure DO NOT account for sensitive populations such as children or the elderly. These levels are based on a healthy 165lb male worker exposed for no more than 8 hours day/ 5 days per week. Persons with compromised immune systems for whatever reason are not accounted for. Imagine a child with asthma in Wenden sleeping under a swamp cooler in the event of a small chlorine leak upwind at the smelter. That person is not accounted for when determining safe exposures. Is there an emergency room nearby to treat such a person when exposed? Answer, NO! <u>http://www.chemicalspill.org/WorkerRTK/hazard.html</u>

In the event of a significant release of chlorine from Alliance metals the elementary school <sup>3</sup>/<sub>4</sub> miles downwind (generally prevailing winds from the SW) will have only 6 minutes to be notified and evacuate. **There is no respiratory equipment designed and/or manufactured for children.** The homes that are within 1/3 of a mile from the smelter operation will have even less time.

Because these concerns have been made public, Alliance Metals has proffered the use of two 5000-gallon tanks (10,000 gallons total). The hazards will not be diminished.

The ALOHA modeling of a leak in a 5000-gallon tank illustrates how it still poses a significant risk to the community, and the time issues remain. (See Exhibit 10 & 11). The trade-off will be 3X the truck traffic carrying Chlorine to the site. The more lines and equipment mean more opportunities for something to go wrong that could result in a chlorine leak.

A rupture in one of these 5000-gallon tanks of liquid chlorine would have serious consequences for the community downwind beyond six miles. The community will only still have six minutes to be notified and evacuate, an impossible situation, especially for the elementary school when no manufacturer of Personal Protection Equipment provides equipment for children.

Even with the reduction from 30,000 gallons to 5000 gallons does little to reduce the potential hazards and should not be sited anywhere near residents, livestock or food sources for at least 10 miles.

https://en.wikipedia.org/wiki/Chlorine\_gas\_poisoning

# **Dose toxicity**

Humans can smell chlorine gas at ranges from 0.1–0.3 ppm. According to a review from 2010: "At 1–3 ppm, there is mild mucous membrane irritation that can usually be tolerated for about an hour. At 5–15 ppm, there is moderate mucous membrane irritation. At 30 ppm and beyond, there is immediate chest pain, shortness of breath, and cough. At approximately 40–60 ppm, a toxic pneumonitis and/or acute pulmonary edema can develop. Concentrations of about 400 ppm and beyond are generally fatal over 30 minutes, and at 1,000 ppm and above, fatality ensues within only a few minutes."<sup>[2]</sup> With the modeling previously presented is compared to the numbers listed and highlighted in yellow, even a small leak can cause serious problems if the community loses the toxic lottery and the wind is blowing in an unfortunate direction during an accidental release. (Exhibits 8,9,10,11)

## **Emergency Response Issues:**

The LEPC (every county has one) is required to update its county emergency plan when a new hazmat facility opens. <u>Comprehensive emergency response plans</u> (EPCRA). Arizona adopted the federal law into state statutes. A responsible LEPC or your county emergency department, which houses the LEPC, that actually had ANY concern over public health and safety would testify at the zoning hearings and provide the data about the risks. The community is going to learn a lot about the integrity of the La Paz emergency response officials by their action or inaction on this issue.

It is very unusual for a facility with this much chlorine to be anywhere in Arizona. There are two facilities in Maricopa County that bring in 90-ton rail cars of chlorine, which is repackaged into one-ton cylinders and sent back on the rail to other sites. One of them, DPC Enterprises, had an off-loading spill of chlorine, which caused an evacuation and shelter in place response up to **three miles** downwind. The release of chlorine in that 2003 incident was around 112 pounds. Some wastewater and water treatment facilities utilize them. What is proposed in Wenden is unprecedented. No responsible government entity would ever consider moving such an extraordinary hazard near residents or schools. There is an elementary school 0.75 miles downwind.

The Risk Management Program (RMP) was formulated as a result of the 9/11 attacks and concerns about terrorist attacks. This facility would fall under that category. Large chemical storage units are a prime target for causing great harm to communities as a result of a deliberate act. Yet another reason this is the wrong location for this facility.

#### Accidents are common place:

http://www.rtk.net/rmp/tables.php?tabtype=t3&subtype=a&sorttype=inc

In the last 5 years there have been 12,321 chemical accidents in the U.S. that have caused \$1,134,532,416 and nearly 17,000 injuries. They're called "accidents" because these are unplanned events. They happen, and they happen a lot.

There is no local workforce who want toxic jobs

The Applicant claims 5-10 trucks per day. The air permit application states 12.5 trucks per day. A recent editorial penned by Rose Law Firm claims 2 trucks per hour on a 24-hour operation for 48 trucks per day. This is clearly a moving target like Alliance's claim they will invest \$10 million, then it was \$30 million, which one can only assume would be for expansion plans, and as previously stated and documented, would result in the facility becoming a major pollution source. So, the contradictory truck traffic number is a bare minimum subject to increases up to three times more after expansion plans are acted on.

Section 3.5 Land Use Goals and Policies of the Comprehensive Plan:

Goal 1: Maintain the rural character of La Paz County

Policy 1.10: Changes and/or amendments to the land use plan will be closely scrutinized to ensure consistency with the County's rural character and compliance with identified plan designations for development purposes.

The rural character will be completely destroyed with the constant truck traffic hauling aluminum scrap, chlorine, salt cake and end product. Property values are going to plunge. The surrounding rural farms will be shut down from pollution contamination once word gets out about the heavy polluting industry across the fence line.

Policy 1.80 Support efforts by existing towns and more urbanized areas throughout the County to concentrate higher intensity development (e.g., commercial and employment activities) there rather than haphazardly dispersed development in the County's rural and remote areas. There is NO effort on the part of Wenden or Salome to recruit heavy, toxic industrial uses  $\frac{3}{4}$  of a mile upwind of an elementary school and  $\frac{1}{3}$  mile from residents. There is no workforce available for these toxic jobs or a desire for such jobs.

# Goal 2: Maintain the character and lifestyle of La Paz County

Policy 2.50: Protect existing residential neighborhoods from encroaching industry and commercial development through the use of buffering, master planning and consolidation. Avoid zone district changes that meet the definition of spot zoning or that will disrupt the traffic. Parking and/or health safety or welfare of an existing neighborhood.

The proposed Alliance Metals facility is indeed the antithesis of this. It would be an existential threat to the health, safety, and welfare of the existing neighborhoods in Wenden, as well as other towns in La Paz County such as Salome that are along the transportation route of the chlorine being transported to the facility.

Inappropriately siting a heavy, toxic chemical using industrial facility is the very definition of spot zoning. The traffic from up to 50 trucks a day will definitely disrupt traffic and change the entire area in a negative way. Siting large amounts of toxic chemicals such as liquid chlorine that if released would cause grave injury or death next to a residential area does NOT protect public health, safety or welfare of an existing neighborhood.

Claiming to be held to the "highest standard to ensure excellent water and air quality" is disingenuous for a company that self-monitors and will have near zero oversite.

Claiming that "Any non-compliance with environmental standards can and will result in revocation of its operational permits and certifications" is a FALSE CLAIM!!!!

From Applicant's ADEQ Air Permit:

Part VII(A) 2:

In the case of continuous or recurring excess emissions, the notification requirements shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification and estimate of the time the excess emissions will continue.

Nobody EVER gets shut down for environmental non-compliance in Arizona. They are only required to file a report. When environmental non-compliance is found, the company is issued a Notice of Violation (NOV) but is NEVER shut down no matter how many sick people have been affected or how much environmental contamination has accrued. Standard procedure is to allow the company to continue to pollute until it comes into compliance with permits that just allow pollution by dilution, but do nothing to protect the environment of human health or contamination of nearby food sources.

## From Applicant's ADEQ Air Permit:

Part VII (D) Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown

This is what is known as a "permit shield" giving the company carte blanc to pollute at will outside the parameters of permit. As part of the 1992 Clean Air Act the concept of permit shields was created for the purpose that if any part of the air permit was declared illegal, the rest of the permit was "shielded." Basically, a polluter protection act that allows the polluter to continue to pollute without consequence. They just have to file a report, there are NO other consequences, no matter how many permit violations occur, there will NEVER be a shut-down because of pollution violations. The excess emissions won't even be counted towards the annual emissions inventory.

Goal 4: Support the continuation and diversification of La Paz County's agricultural land uses.

# Policy 4.20: Protect and enhance the water supply to ensure adequate quantity and quality to meet current and future resident' and business' needs.

The siting of this Alliance facility fails on all counts here. Nothing about this project will "enhance" the water supply. When large amounts of hazardous waste in the form of aluminum salt cakes wash away in one of the very frequent "100-year storms" the water quality can only be degraded if it comes into contact with the water via washing down Centennial Wash which flows down to an ever-expanding subsidence area.

Alliance does not have an Aquifer Protection Permit. The Arizona Department of Environmental Quality (ADEQ) is NOT currently reviewing all aspect of

operational procedures to ensure there are no negative impacts on environmental quality. They are only issuing an air permit that only attempts to limit pollution utilizing the "trust me" factor and that ultimately does not protect health or the environment as routinely evidence by all the industrial and hard mining toxic air/land/water pollution and illnesses/early deaths/cancers in the State of Arizona. The fact of the matter, and what Alliance fails to convey honestly, is that environmental laws utilize a "technology" standard to attempt to limit pollution, and it does NOT have anything to do with human health or protecting the environment. It just makes pollution "legal."

There is NO government agency that will monitor the extremely dangerous chlorine tanks for leaks or do anything at all regarding Emergency Planning or Response except call ADEQ, and as of a few years ago, ADEQ had no one to even answer the phone for an emergency response event.

Again, Alliance talks complete nonsense about how "Any non-compliance can and will result in revocation of environmental operating permits and certifications."

Nobody is ever shut down by ADEQ because of pollution concerns or environmental permit non-compliance. That's not how it works.

Under Goal 5: Diversify the Economy - Alliance makes the disingenuous case that they are just replacing one polluter (shut down 25 years ago) for another and that this somehow justifies bringing all these hazards to a community that does not want it or its hazards or enormous truck traffic.

The old cotton gin <u>never</u> released or utilized large amounts of toxic chemicals/materials or used huge amounts of dangerous chlorine.

Siting a smelter that emits dioxins/furans, metal particulate matter, and utilizes large amounts of liquid, pressurized Chlorine, a VERY hazardous chemical, just because it is convenient for them and with close proximately to a gas line is not reason enough alone to spot zone heavy industrial use next to residential areas. The very function of having a planning and zoning process is to identify incompatible land uses. Nothing could be more incompatible then this situation.

For anyone who believes Alliance's claim that "Many similar processing facilities have been built near towns and schools with no report of negative impacts whatsoever" should tour the other metal smelter towns around Arizona that have been DEVASTATED by the destruction of their health, environment and economy. Despite the relatively high wages, property values are some of the worst in the country and no other economic development takes place because the towns near smelters are considered National Sacrifice Zones and the local economy is destroyed. Nobody is ever shut down because of pollution concerns or environmental permit non-compliance in Arizona.

# **Conclusion:**

If this heavy industrial use is allowed to be sited, no amount of non-compliance with any regulation, or any number of complaints from citizens who may be impacted, will ever shut this facility down.

When the environment is contaminated and the citizens and the toxic tort lawsuits start up, it will be the County that shares liability for anything that goes wrong. If contamination after decades accumulates, and the area ends up being declared a Superfund site, the county will share the liability.

May common sense prevail,

Scott Meyer President Don't Waste Arizona, Inc. 2934 W. Northview Ave Phoenix, AZ 85051