

◆ **Responses and questions submitted by Tom Casselman and Larry Fitzmorris
12/30/2011 as a follow-up to previous responses to questions submitted on 11/3/2011**

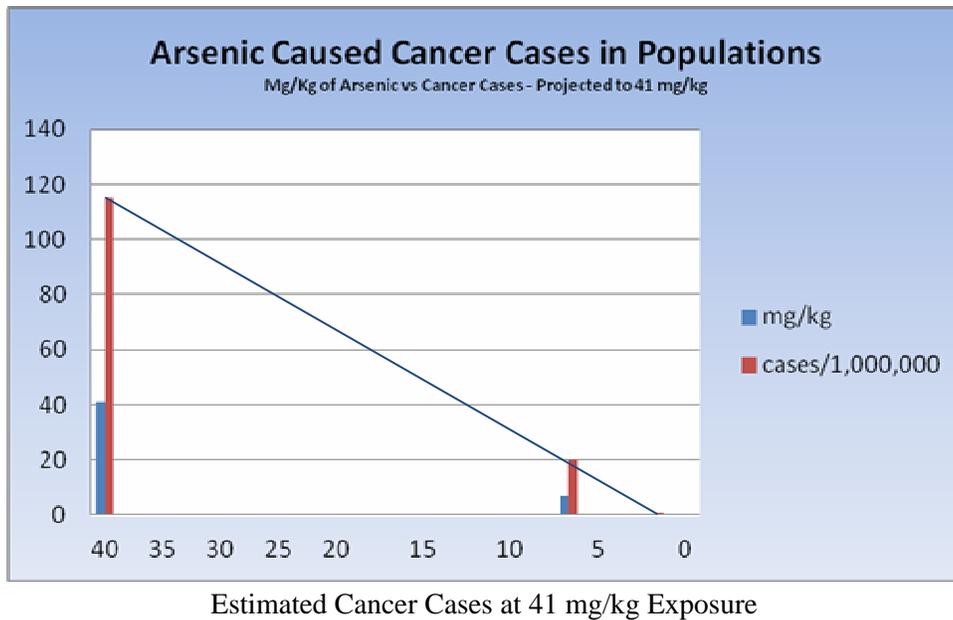
Original Question (3): In a population of 100,000, what are the specific cancer risks of 40 ppm ingested arsenic dust?

Original Answer: *If the soil is managed as described, the Department does not believe there is any specific risk to the community. The Legislative Commission on Arsenic concluded the standards are protective of human health and the environment. As clarified in the comments to the proposal from Representative O'Neil, the Department requirements go above and beyond those of the Commission's recommendations. It is not the intent for the project team here to redo either the work of the legislative team or the work of the Department's team that promulgated the Remediation Regulations with the new standards. It is also important to note that in reviewing the data, the Department has not found any soils with arsenic levels over 27 mg/kg and all shipments had average levels well below 20 mg/kg. Furthermore, many of the shipments had arsenic levels below 7 mg/kg in all samples. So the implication that residents have been exposed to arsenic soils of 40 mg/kg is not consistent with the data for the site.*

Response to DEM answers, by Tom Casselman and Larry Fitzmorris: Based on DEM's answer, it is now apparent that the Department did not utilize specific scientific studies and data to support their core decision – that the placement of soil containing up to 41 mg/kg arsenic in Island Park did not “constitute a specific risk to the community.” DEM has failed to answer the original question that we submitted regarding the risk to residents. The core decision the Department made is the selection of naturally occurring arsenic maximums on Aquidneck Island as a standard, applied to the whole Island. This key decision resulted from a Legislative Commission that rejected DEM's recommendation not to raise arsenic levels and then delegated the implementation of increased limits to DEM itself. It is clear that the decision on arsenic resulted from the costs of doing business for developers on Aquidneck Island.

In addition, it would appear from DEM's comments on the web site that assessments of risk are based upon compliance with required coverage of deposits of contaminated soils within two weeks. There is very little evidence that this is regularly done at the Island Park landfill site. We also question any conclusion of no risk in the absence of any testing program of the residential areas surrounding the landfill site.

While we do not have sufficient information, if we extend the data used in the report of the House Legislative Commission of 2007 to the level of 41 mg/kg, we derive a cancer rate of one case in approximately 9,000 people. This assumes a linear relationship of arsenic and cancer cases. If the relationship is exponential, the number of cases could be much higher. Our chart is inserted below.



Department response: *The first paragraph of the comment applies to the Regulations and the finding of the Legislative Commission as a whole, not just this site. The promulgation of the revised Remediation Regulations went through an extensive public notice/public comment period which included notification of numerous environmental groups and consultation with engineering, geological and public health experts. Additionally the notice of the public hearing on the new Regulations, including the arsenic standards, were announced more than once and read into the administrative record of a public meeting on the Island Park Landfill in January of 2011. The Department received several comments during the comment period in support of the new arsenic regulations and no comments opposing them. A 23 page response to comments on <http://www.dem.ri.gov/programs/benviron/waste/pdf/remregresp.pdf>.*

Regarding the second paragraph, for each acceptance of soils with naturally occurring levels of arsenic greater than 7 mg/kg, the Department has received certification of cover within 14 days (for those soils with elevated naturally occurring arsenic). In verifying this, the Department makes its determination based on review of the notifications, onsite observations (including detailed observations about the soil itself), interviewing personnel onsite and review of certification reports. The Department has made several site visits in which it has verified compliance with this condition. The Department does not accept the assertion of the commenters and believes the commenters do not access to all the information above that is necessary to make a compliance determination.

*The estimates above do not follow accepted USEPA methodologies for determining reasonable maximum exposure as this seems to be based on the assumption that the population lives on soils that, at the surface, contain an **average** concentration of 41*

mg/kg in the top 3 inches of soil. These assumptions are completely inconsistent with the Regulations, the Commissions recommendations or actual site conditions.

Original Question (6): Soil being deposited at the Island Park landfill site is primarily coming from three sites (by late October, 2011) on the Newport Navy Base: the building site of the new Army Reserve Center, a construction site at the Naval Underwater Systems Command and the Hazardous Material facility site. Why is this soil acceptable at a residential site in Portsmouth and bordering a salt-water estuary, and not acceptable at industrial sites on the Navy Base?

Original Answer: *The Department did not view the material as unacceptable where it was. Its removal was the result of excavation from construction related activities. Identical material continues to exist in the ground at the navy base and is not viewed as unacceptable.*

Response to DEM answers by Tom Casselman and Larry Fitzmorris: The Department's response to question six is evasive. Please be more specific and detailed in your answer.

Whatever opinions DEM may hold about the soil that was removed from the Navy Base, the individuals on the Base clearly thought it was necessary to remove the material from the three industrial sites. Why would the Federal Government pay to have the soil removed and pay to have it deposited at the landfill site in Portsmouth if it was acceptable where it was? While DEM may consider the soil acceptable were it was, the Navy clearly did not. This situation strongly suggests that the Navy has more stringent standards for arsenic deposits at their industrial sites than DEM does for residential sites in Portsmouth.

The Construction and Demolition debris used as fill material at the Portsmouth landfill site greatly exceeded the arsenic levels at the site prior to 2010 (7 ppm vs 41 ppm). We believe that the material deposited meets, in part, the regulatory standards set in RIGL 23-18.9-7, as amended on 7/01/2011. The fill material from the base was not the naturally occurring soil originally proposed in the Beneficial Use Determination.

Department Response: *The Department believes the previous answer is neither evasive nor incorrect. Discussions with Naval Station Newport officials indicate the material was not removed as a result of environmental concern but as a result of construction and routine maintenance activities. Nor does the Navy have more stringent standards for soil than the Department. We suggest comments consult with Naval Station Newport personnel to obtain independent verification of this.*

Furthermore, the soil, which does not contain any solid waste, clearly does not meet the definition of Construction and Demolition Debris in RIGL 23-18.9-7. Finally, the Department reviewed geological data and analytical data for a variety of constituents (to ensure all other compounds were below residential standards). The Department did independent sampling and looked at some materials at the Navy Base prior to shipment,

*as well as inspection of the material at the site. Based on this, it concurred with the representation that the material had elevated levels of **naturally occurring arsenic**. We contacted the commenters to see if there was any basis behind the allegation that the levels are not naturally occurring. None was provided except that it is from the Navy Base that is an industrial site and therefore arsenic is not naturally occurring. The Department does not believe this conclusion is at all reasonable.*

Original Question (8): In the meeting with the Governor, attended by ourselves, Director Coit and other high ranking officials of DEM, it was admitted by DEM representatives that the reason the arsenic level was raised to a maximum of 42 ppm was to allow the current owner of the landfill site, APE Enterprises, to make a profit on the capping project. The Department also recently authorized the increase of the Pond View (East Providence) tonnage limits from 150 tons per day to 1,500 tons per day. Is it the policy of the DEM, in view of the recent Department decisions at the Pond View and the Portsmouth Landfill facilities, to allow the raising legal limits, for solely financial (profit) reasons?

Original Answer: *The arsenic level was not raised to a maximum of 42 ppm to allow APE Enterprises to make a profit. The reasoning behind the change in the arsenic standard is well documented in the report of the legislative commission on arsenic and the regulation changes that were promulgated as a result of that effort. It was acknowledged that APE Enterprises was receiving money for accepting this soil as fill/grading materials prior to final capping under the Beneficial Use Determination issued by the Department and the revenue from this was offsetting the overall cost of the closure/remediation of the site, making it more economically feasible. The Department evaluates every application submitted under the terms and conditions of the governing regulations and does not make decisions based on the profits or losses resulting from the proposed operation/activity.*

Response to DEM answers by Tom Casselman and Larry Fitzmorris: Terrance Gray of DEM confirmed that the relaxation of arsenic standards at the Portsmouth Landfill site was done to ensure that AP Enterprises was financial viable and would therefore improve the chances of completing the project. Mr. Gray did so in response to a question by Governor Chafee during his meeting with Siobhan McDonnell, Tom Casselman, Daryll Issa and Larry Fitzmorris of Portsmouth on March 25, 2011. Director Coit was also in attendance.

The hearing conducted by DEM in Portsmouth on this project included remarks from Council for AP Enterprises. She confirmed that the project was in jeopardy if increased revenue were not available to the company from fill deposits. The success of this project depends upon likelihood of a successful financial operation by AP Enterprises. In addition, the whole intent of relaxing the arsenic standards was driven by the profit motive of Aquidneck Island developers, expressed clearly in the report from the 2008

House Commission on Arsenic. It is difficult to see any other motivation for relaxation of arsenic standards in this effort.

Department Response: *As is frequently the case on meetings about controversial topics, recollections and interpretations about what was said, as well as speculation on the motives of the participants, are frequently at odds. At this point, the Department feels it has reached the point where it should simply be recognized that the commenters recollection and interpretations of what was said are at odds with the Department's participants.*

Original Question (9): During the March, 2011 meeting with the Governor, Director Coit characterized the Island Park Landfill site material, exclusive of the cap material, as "unsafe". What is the scientific reference to support that statement?

Original Answer: Two extensive site characterizations have been prepared, a Site Investigation Report in 2003 and a Supplemental Site Investigation Report in 2006. These studies found the following threats to human health and the environment posed by The topography of the landfill did not meet the Department's standards and did not adequately manage runoff.

Existing soils exceed the RIDEM Residential and Industrial/Commercial Direct Exposure Criteria for the following hazardous substances: arsenic, lead, benzo (a) pyrene, benzo (b) fluoranthene, and chrysene.

Soil sampling showed existing soil exceeds the RIDEM GB leachability criteria for trichloroethene. The GA leachability criteria were also exceeded for the following hazardous substances: trichloroethene, tetrachloroethene and cis-1,2-dichloroethene. Groundwater sampling of on-site wells shows it exceeds the GA criteria for barium, benzene, cis-1,2-dichloroethene, tetrachloroethene, trichloroethene, and vinyl chloride. The area is classified as GA.

Soil gas results indicate elevated levels of trichloroethene, 1,1,1-trichloroethane, toluene, 1,1-dichloroethene and 1,1,2-trichlorotrifluoroethane on the central portion of the landfill.

So, in summary the site has significant exceedences in the Department standards for a number of carcinogens and non-carcinogens. There is direct evidence that the toxic chemicals have been released to the aquifer and the air. Furthermore uncovered trashed on the surface presents a physical hazard as well. This is the basis of the Department's conclusion that the site, prior to the closure, presented a risk to visitors at the site, nearby residents as well as environmental receptors on and around the site.

Response to DEM answers by Tom Casselman and Larry Fitzmorris: The term 'site material' was misconstrued in DEM's answer. Our reference was to the fill soil being deposited over the original dumpsite material and we believe that it was the site fill material that Director Coit was calling "unsafe." We are all aware that the site is contaminated and has been so since the facility closed in the seventies.

Therefore, what is the scientific reference of “unsafe” with regard to the site fill material itself, exclusive of the clean fill to be used in the cap?

Department response: *The fill that has been accepted meets the industrial/commercial standards, although it does not in many cases, meet the Department’s residential standard. To comply with the Department’s closure conditions, the upper 2 feet of final cover must meet residential standards. This does not however, mean that the Department’s believes the acceptance of the material in accordance with the BUD is in any way unsafe and has never characterized it as such. As with the above response, the interpretations of what was said differ between the Department and commenters.*