

## relation between bad odor and poor sanitation in urban chanel, comments and remedation?

Posted by fppirco - 31 Oct 2012 07:16

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To all colleagues

I look for comments for bad odor from urban water channels in large city with traditional collection waste water, I welcome for any practical remediation Such as decentralized (in-site) waste water treatment

I know many parameters such as weather, climate status and waste water quality involved in any remediation actions.

I thanks in advance.

Mohammad Mojtabei

[www.fpp.ir](http://www.fpp.ir)

Telfax:00985117629569

P.O Box:91865-358

Mashhad,Iran

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## Re: relation between bad odor and poor sanitation in urban chanel, comments and remedation?

Posted by JKMakowka - 31 Oct 2012 09:26

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Often anaerobic bacterial production of H<sub>2</sub>S (Hydrogen sulfide) is a problem, which both smells strongly and can damage concrete over longer periods of time.

There is a few options one can do against it (just google), but there isn't really a "magical" solution to get rid of it cheaply.

Edit: Not sure what type of traditional waste-waster system you are referring to, but obviously this is more or a problem in closed sewer-pipes.

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## Re: relation between bad odor and poor sanitation in urban chanel, comments and remedation?

Posted by CeciliaRodrigues - 31 Oct 2012 11:26

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Dear Mohammad,

I am not sure about what kind of urban water channels you are referring to, but I think that in the cases of rainwater channels, the bad odours is mostly related to illegal sewer connection and illegal faecal sludge discharge. I have noticed that in rainy days the odours get worse and I assume it is due to an increase of such practices.

Best regards,

Cecília.

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## Re: relation between bad odor and poor sanitation in urban chanel, comments and remedation?

Posted by fppirco - 31 Oct 2012 16:38

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Dear Cecília

Thank you for your reply , yes you understood true ,these are rain water channels and you know becuase we are located in semdi arid annual raing rate is about 250 mm and about almost time these channel are dried or very low water contents.

mixing with sewage and some waste preapre for anaerobic digestion with bad odor .

but something is critical, how can collected these low volume sewage(in site),neutralise and recycling them again?

since 2008 I was in Honnover for saniation and water reources protection I have been working (theorical

and research & introduction) on sanitation for using as water safety anhygine and using in our water scarce region

with best regards

Mohammad

[www.fpp.ir](http://www.fpp.ir)

Telfax:00985117629569

P.O Box:91865-358

Mashhad,Iran

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## Re: relation between bad odor and poor sanitation in urban chanel, comments and remedation?

Posted by CeciliaRodrigues - 02 Nov 2012 14:01

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Hi Mohammed,

It is hard to think about good transport and treatment systems without taking into account how the black water is collected and the user's interface. Only with information about these aspects, we can think sanitation as a whole system.

I recommend you to have a look at the 'Compendium of Sanitation Systems and Technologies', published by Eawag. Here is the link: [susana.org/lang-en/library?view=ccbctype...p;type=2&id=454](http://susana.org/lang-en/library?view=ccbctype...p;type=2&id=454).

Here is one example of how the options are discussed:

Furthermore, the factsheet of the SuSanA Working Group 4, on sanitation systems, technology options,

hygiene and health, is also a good resource: [www.susana.org/lang-en/library/rm-susana...p?type=2&amp;p:id=433](http://www.susana.org/lang-en/library/rm-susana...p?type=2&amp;p:id=433).

I hope that these publications will help you to find out better technical options, adequate to your context and region.

Best,

Cecilia.

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## Re: relation between bad odor and poor sanitation in urban chanel, comments and remedation?

Posted by CAGIEA - 02 Nov 2012 16:04

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Dear Mohammad,

You seem to be disturbed by bad odor but these channels are posing a health problem to the communities living in city slums. Most channels meander through the city slums where you find concentration of settlement of the most disadvantaged people. A long the channels these communities do carryout all sorts activities including cooking, selling food, even use the water for some activities like washing etc. You will also see kids playing along these channels and time they accidentally drop what they are eating, for example sugarcane into the channel but recover the items and continue eating. I have ever seen this happening.

So we should also think about protecting the population who reside along these channels, they suffer the bad odor + infections.

Deo

CAGIEA

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**Re: relation between bad odor and poor sanitation in urban chanel, comments and remedation?**

Posted by F H Mughal - 04 Nov 2012 05:24

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There is an relatively simple and easy remedy for the odour-emitting water channels, assuming that the channels contain a mix of rainwater, sewage, grey-water and storm-water.

Anyone going from Bangkok city to the Asian Institute of Technology by road, will find on the right hand side, water channels that carry aerators, in the shape of cage rotors. The tips of cage rotors are submerged about 15 centimetres in the water. The cage rotors revolve at an speed of about 80 rpm. The splashes they cause, aerate the water and, this prevents odours. Odours are caused by stagnant or slow-moving waters, or if they heavily polluted, organically. The best solution in such cases is aeration. If there is a good gravity flow, cascades (just like the steps of an staircase) can be used, over which the water travels and, this provides a good aeration as well.

F H Mughal

Karachi

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**Re: relation between bad odor and poor sanitation in urban chanel, comments and remedation?**

Posted by fppirco - 05 Nov 2012 07:43

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Dear Cecilia

Thank you very much for your comments and invaluable information , I confirm your comments we must look whole sanitation and apply intergrated remediation but something is very impotent complexity is the low volume waste water resources but in high numbers and variety which intervent and you need put decentearl waste water and sanitation .

I follow your comments and information which also kindly offer by others ,hope to reach practical and applicable solution.

I also like to reach to decenterlised saniation and waste water with focusing water recycling and reusing.

with best regards

Mohammad Mojtabaei

[www.fpp.ir](http://www.fpp.ir)

Telfax:00985117629569

P.O Box:91865-358

Mashhad,Iran

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Re: relation between bad odor and poor sanitation in urban chanel,  
comments and remedation?

Posted by fppirco - 05 Nov 2012 07:49

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Dear CAGIEA

Thank you so much for your comments but about these cahnnels only bad odor impaction is the first priority and other risk factor fortunetly such as disease transimission are under contor.

with best regards;

Mohammad Mojtabaei

[www.fpp.ir](http://www.fpp.ir)

Telfax:00985117629569

P.O Box:91865-358

Mashhad,iran

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Re: relation between bad odor and poor sanitation in urban chanel,  
comments and remedation?

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Posted by fppirco - 05 Nov 2012 07:54

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Dear F H Mughal

Thank you so much for your comments and information , your comments about using of aeration box is very interesting, Can you please send any reference,photo or any links?

I thank in advance

with best regards;

Mohammad Mojtabaei

[www.fpp.ir](http://www.fpp.ir)

Telfax:00985117629569

P.O Box:91865-358

Mashhad,Iran

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**Re: relation between bad odor and poor sanitation in urban chanel,  
comments and remedation?**

Posted by CAGIEA - 05 Nov 2012 17:58

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Dear Mohammad,

It good if the if disease transmission is under control. My concern can be explained further by this photo attached.

Regards

Deo

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**Re: relation between bad odor and poor sanitation in urban chanel, comments and remedation?**

Posted by F H Mughal - 05 Nov 2012 18:21

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Dear Mr. Mohammad,

The following link gives some details:

[PDF]

The Use of Oxidation Ditches for Treatment - libdoc.who.int

whqlibdoc.who.int/bulletin/.../bulletin\_1962\_26(4)\_464-474.pdf

Please contact my friend: Glolam Abbas Kazemi (&quot;Gholam Abbas KAZEMI&quot;

This e-mail address is being protected from spambots. You need JavaScript enabled to view it

), Assistant Professor of Hydrogeology, Faculty of Earth Sciences, Shahrood University of Technology, Shahrood, PO Box 316- Post Code 36155, IRAN , Ph: + 98 273 3392204, Fax: + 98 273 3394419. He may be able to help you.

Regards,

F H Mughal (Mr.)

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