


Manual for certification of sludge

2.1.1 Test routines

Municipality of Höganäs

2013

 HÖGANÄS KOMMUN SAMHÄLLSBYGGNADSFÖRVALTNINGEN	Manual for certification of sludge	Revised:	2013-09-18
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2.1.1	Test rotuines	Approved by:	Fredrik Arthursson
		Established by	Marianne Gleisner

SAMPLING PROCEDURES OF SLUDGE FROM CENTRIFUGE



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According to routine 2:1 Sampling of sludge in the manual for certification of sewage sludge.


Samples from the centrifuge are taken daily. The centrifuge should be running and have run at least an hour before the sample is taken. The sample is collected in a small white bucket marked "prov från centrifug", which is located at the drying rack. Fill the "glass shovel", also found in the dryer rack. Add a dose in the jars that are located in the freezer, labeled "kvartalsprov" (1) and "månadsprov" (1). Mark in the list, which is on the freezer that a test is taken and add signature.

Table 1: The following analyses are sent according to the sampling schedule to Eurofins .

Monthly Previews (4)	Quarterly Sample (No. 5)	Årsprov (No. 6)
pH	7 pcs PCB (individually + total)	Analysis of 60 trace elements
Dry matter OR	Benzo (a) pyrene	
Residue on ignition	Benzo (b + k) flouranten	
Ignition loss	Benzo (ghi) perylene	
Ammonium NH ₄ -N	Flouranten	
Total nitrogen Tot-N	Indeno (1,2,3-cd) pyrene	
Total phosphorus Tot-P	7 pcs PAH (sum)	
Lead Pb	nonylphenol	
Cadmium Cd		
Copper Cu		
Chromium Cr		
Mercury Hg		
Nickel Ni		
Zinc Zn		
Effect lime CaO		
Silver Ag		
Molybdenum Mo		

Current sludge samples are drawn from the freezer and thawed. Mix thoroughly. Fill jar obtained from an accredited laboratory. Make sure that the label on the bottle is correctly filled out. Fill one half of the label. Tear it off and attach it to a blank sheet. Sign in "@tmis", then put sheet of labels/tags in the binder labeled "Lab-analyser, kopior följesedlar", found in the cabinet in the lab . Pack the jar with the sludge sample and ice packs into the included transport packaging.

- Monthly Sample (No. 4): Sent every month to an accredited laboratory for analysis. Also, fill a small jar as a reserve, saved 3-6 months, i.e. at least until the results from quarterly sample arrived.
- Quarterly Sample (No. 5): Sent every quarter to an accredited laboratory for analysis. When the sample jar is filled saved the rest to the yearly sample.
- Yearly Sample (No. 6): Sent at the end of the year to an accredited laboratory for analysis of 60 trace elements. See routine 2:3

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SAMPLING PROCEDURES FOR INCOMING AND OUTGOING WASTEWATER 2013

According to routine 2:1 Sampling of sludge in the manual for certification of sewage sludge.


The day before sampling, in the morning, samplers for incoming and outgoing wastewater are started. On the day of sampling respective containers are retrieved in the lab.

Table 2: The following analyses are sent according to the sampling schedule to an accredited laboratory.

(No. 1) INCOMING AND OUTGOING WASTEWATER 2 times / month BOD7, CODcr, P-tot, N-tot, NH4-N
(No. 2) METALS IN INCOMING AND OUTGOING WASTEWATER 1 g / month Cd, Cr, Cu, Hg, Ni, Pb, Zn
(No. 3) QUARTERLY TEST IN INCOMING AND OUTGOING WASTEWATER 1 g / quarter PCB 7 st, PAH 6 st,

Shake the test with incoming and outgoing wastewater well. Fill all sample bottles. Check the labels on the sample bottles are correctly completed. Fill one half of the label, detach and attach it on a separate sheet. Pack up all sample bottles and cans in the transport package. Place in freezer packs. Register all the labels in "@Tmis". Then filed in the binder labeled "Lab-analyser, kopior följesedlar", which stands in the cupboard in the lab.

If any additional tests beyond what we ordered are delivered an extra delivery note for this written should be written. Also take a copy of this and file it in the same folder. Add sample and packing slip along with the other samples.

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SAMPLING SCHEDULE FOR SLUDGE 2013

INCOMING AND OUTGOING WASTEWATER

According routine 2:1 Sampling of sludge in the manual for certification of sewage sludge.

At least one month before the current sampling date. Obtained from an accredited laboratory; bottles, cans, packing slips and shipping container. Bottles and cans are labeled with sampling date.

Month	Date	Test No	Date	Prov nr
January	2013-01-02	1,2,3,4,5	2013-01-15	1
February	2013-02-05	1,2,4	2013-02-19	1
Mars	2013-03-05	1,2,4	2013-03-19	1
April	2013-04-02	1,2,3,4,5	2013-04-16	1
May	2013-05-07	1,2,4	2013-05-21	1
June	2013-06-04	1,2,4	2013-06-18	1
July	2013-07-02	1,2,3,4,5	2013-07-16	1
August	2013-08-06	1,2,4	2013-08-20	1
September	2013-09-03	1,2,4	2013-09-17	1
October	2013-10-01	1,2,3,4,5	2013-10-15	1
November	2013-11-05	1,2,4	2013-11-19	1
December	2013-12-03	1,2,4	2013-12-17	1

Sample # 1: Incoming and outgoing sewage: see Table 2

Sample # 2: Incoming and outgoing sewage: see Table 2

Sample # 3: Incoming and outgoing sewage: see Table 2

Sample # 4: Monthly Test sludge: see Table 1

Sample # 5: Quarterly Test sludge: see Table 1

Yearly sample sludge, analysis of 60 trace elements, sent separately in January. See routine 2:3