

Study Notes, All Areas

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*The notes below were written to be included with a DVD; the relevant items should be available on the MEHAOnline library. Please contact a Registration Committee member with any questions.

Administration and Statutes and Regulations

- Chapter 12 in Salvato's *Environmental Engineering and Sanitation*, 4th or 5th edition. You can also view the volume on line at:
<http://www.tnu.edu.vn/sites/quynhntt/references/8064517-Environmental-Engineering.pdf>

EPHOC video "Statutes and Regulations"

- <http://lms.southcentralpartnership.org/course/viewguest.php?id=127>
- You will have to enroll in the course. It is best viewed with Explorer or Google Chrome, with the pop-up blocker turned off.
- A related area is Environmental Engineering, Planning, and Impact Analysis in Chapter 2 of Salvato.

Air Noise Study Notes

- Read Chapter 6 in Salvato, *Environmental Engineering and Sanitation*, 4th or 5th edition (or equivalent material), and if you have a copy of the NEHA RS/REHS Study Guide, chapter 11.
- View the SCPHP 11. *Air Quality and Environmental Noise* on line course at <http://lms.southcentralpartnership.org>. It's best to use a PC for this link, and some browsers work better than others. You will have to sign up (free) for the course.

CAFO Study Notes

- This is a new area covered in the exam. *The Understanding Concentrated Animal Feeding Operations and Their Impact on Communities* document is a primary source of information on animal feeding operations. It is an easy read. A copy is included on this DVD, and can also be found at https://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf

Biomedical/Biohazard Study Notes

- Biomedical and biohazard questions may be on the exam. The CDC/NIH Biosafety in Microbiological and Biomedical Laboratories (BMBL5) is one of the primary sources of information on this area. Pay particular attention to Biosafety Levels and Biological Safety Cabinets. The BMBL5 appendix A was included separately on this DVD to make it easy to find. The Appendix describes various types of cabinets. While there may be only a couple of questions of the exam specifically about biosafety, elements of this topic overlap with others, such as body art.
- Risk assessment is important in understanding and evaluating hazards. Questions may appear on the exam that test these skills. The CDC Section II—Biological Risk Assessment, included on this DVD should be reviewed.

Body Art Notes

- Body art establishments are now widely regulated by environmental health agencies, and are likely covered in the exam.
- The Hennepin County Body Art code, included on this DVD, is based on the NEHA model code.
- A good on-line item to review is Tattoo and Body Art Safety, at <https://www.oshatrain.org/courses/studyguides/607studyguide.pdf>

- For “extra credit”, you may want to read Health Hazards in Nail Salons, at <https://www.oshatrain.org/courses/studyguides/609studyguide.pdf>

Disaster Sanitation Study Notes

- View the SCPHP 15. Disaster Sanitation on line course at <http://lms.southcentralpartnership.org>. It's best to use a PC for this link, and some browsers work better than others. Turn off the pop-up blocker. For extra credit you may also view the SCPHP courses Environmental Sampling and Monitoring in a Disaster and Environmental Health and Shelters.
- View the FEMA Introduction to Incident Command System course, ICS-100, at <http://training.fema.gov/is/courseoverview.aspx?code=IS-100.b>
- Look over the first 20 pages of the DOT handbook at: <http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Hazmat/ERG2016.pdf>
- A good brief summary of the guidebook can be found at https://en.wikipedia.org/wiki/Emergency_Response_Guidebook

Disease Control Study Notes

- Read Chapter 1, Control of Communicable and Certain Noninfectious Diseases, in Salvato, Environmental Engineering and Sanitation, 4th or 5th edition.
- Review the WHO Communicable disease control in emergencies A field manual, that can be downloaded at http://www.who.int/diseasecontrol_emergencies/publications/9241546166/en/

Environmental Health Assessment Study Notes

- While not specifically cited as an exam topic, the ability to analyze and assess environmental health problems is important in understanding many of the test questions. The ATSDR Public Health Assessment Guidance Manual, included on this DVD, is excellent volume covering the topic.
- New Foodborne Illness Environmental Assessment material <http://www.ucdenver.edu/academics/colleges/PublicHealth/research/centers/foodsafety/Documents/EA%20Training%20Flyer%20Dec2017.pdf>

Environmental Engineering, Planning, and Impact Analysis Study Notes

- Review Chapter 2, Environmental Engineering, Planning and Impact Analysis, in Salvato, Environmental Engineering and Sanitation, 4th or 5th ed.
- The CDC study questions are included on this DVD. We do not have a copy without the answers marked.
- Flash cards: <http://www.cram.com/flashcards/rehs-environmental-engineering-planning-and-impact-analysis-5354122>
- Environmental Engineering Planning and Impact Analysis, by Walter A. Lyon: http://ssu.ac.ir/cms/fileadmin/user_upload/Daneshkadaha/dbehdasht/markaz_tahghighat_olom_va_fanavarihayeh_zist_mohiti/e_book/pasmand/2_Environmental_Engineering_Planning_and_Impact_Analysis.pdf

Epidemiology Study Notes

- Review the CDC Principles of Epidemiology in Public Health Practice. Please review all of the lessons if you have time. Focus on Lesson 1, Introduction, Lesson 5, Public Health Surveillance, and Lesson 6, Investigating an Outbreak. In our study sessions we use quiz questions from the end of the three lessons. A copy is included on this DVD.
- For extra credit there are three UNC Eric Notebook items included on this DVD.
- Also, for extra credit, FBI/CDC Criminal and Epidemiological Investigation Handbook is included on this DVD.

Food Protection Notes

- Review Chapter 8 in Salvato, Environmental Engineering and Sanitation, 4th or 5th edition (or equivalent material), and if you have a copy of the NEHA RS/REHS Study Guide, Chapter 3. Please review the MDH guidance on demonstration of knowledge at <http://www.mda.state.mn.us/food/business/~media/Files/food/business/dokhandbook.ashx>
- Additional reading: A good review of sanitation can be found in "Principles of Food Sanitation" by Marriott. This volume can sometimes be viewed on line.
- Please have a look at <https://www.ag.ndsu.edu/foodlaw/overview/introhaccp> for an introduction to HACCP, and Sanitation Standard Operating Procedures at http://nsgl.gso.uri.edu/flsgp/flsgpe00001/flsgpe00001_part7.pdf
- Be familiar with the material in Annex 4 of the FDA Food Code, especially the HACCP information. A copy is included on this DVD. If you're not familiar with the FDA Food Code you may want to review it on line at <https://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/ucm2016793.htm>
We have been told that current RS/REHS exam Food Code related questions are based on the 2005 version.

General Environmental Health Notes

- View the Tulane/EHOC General Environmental Health Course at <http://lms.southcentralpartnership.org/course/viewguest.php?id=126> (or see <https://www.cdc.gov/nceh/ehs/eLearn/EPHOC.htm>)
- Review "Environmental Health and Protection: Century 21 Challenges" by Larry Gordon, at <https://aaosi.wildapricot.org/Resources/Documents/Century21.pdf>

Solid & Hazardous Waste Notes:

- Review Chapter 5 in Salvato, Environmental Engineering and Sanitation, 4th or 5th edition (or equivalent material)
- If you have a copy of the NEHA RS/REHS Study Guide, Chapter 6
- Read Hazardous Waste Basics for the First Time Generators, included on this DVD (used with permission)
- Review <https://www.epa.gov/hw/learn-basics-hazardous-waste>
- Review Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities at www.osha.gov/Publications/complinks/OSHG-HazWaste/4agency.html
- Review the EPA RCRA Orientation Manual at <https://www.epa.gov/hwgenerators/resource-conservation-and-recovery-act-rcra-orientation-manual> or <https://www.epa.gov/sites/production/files/2015-07/documents/rom.pdf>

Housing – Residential and Institutional Environment Notes

- Read Residential and Institutional Environment in Salvato's Environmental Engineering and Sanitation (4th or 5th ed.). Chapter 11 in the 4th edition, Chapter 10 in the 5th edition. Also, review the last section of Chapter 9, Pools and Temporary residences, which covers temporary residences, camps and trailer parks.
- Review the CDC Healthy Housing Reference Manual, which can be found at: <https://www.cdc.gov/nceh/publications/books/housing/housing.htm>
- Review the EPA Indoor Air Pollution Manual, included on this DVD
- Because of the amount of material in this topic, Health Homes, we typically cover it in two study sessions. Thus, two sets of questions. While this seems like a lot of material for one area, there is a lot of overlap, with useful information, with other areas of the exam

Institutions and Licensed Establishments Study Notes

- View the SCPHP course #13, Institutions and Licensed Establishment, at <http://www.southcentralpartnership.org/ephoc>. This page works best with Internet Explorer and your pop-up blocker turned off.
- Review Chapter 13, Institutions and licensed Establishments in the NEHA REHS/RS Study Guide.
- There is a lot of overlap between this topic and the section on Housing. In Salvato, Environmental Engineering and Sanitation, 5th ed., Chapter 10 Residential and Institutional Environment, covers both areas, and specifically Institution Sanitation in the last section of the chapter.

OSHA Study Notes

- Review the OSHA Academy Course 750 manual Introduction to Industrial Hygiene at: <https://www.oshatrain.org/courses/studyguides/750studyguide.pdf>
- (OSHA Academy manuals can be found at <https://www.oshatrain.org/courses/studyguides/index.html>)
- Review the Occupational Safety and Health PPT slides included with this DVD. The Slides were provided by Nathan Douglas, Chemical & Biological Safety Officer, Marshall University, Environmental Health & Safety Office (2014)
- The OSHA Introduction or OSHA Instructor Guide, found at: https://www.osha.gov/dte/outreach/intro_osh/intro_to_osh_guide.html

Pools Study Notes

- Read the CDC Model Aquatic Health Code and the Annex, both included on this DVD
- Review Chapter 9, Recreational Areas and Temporary Residence, in Salvato, Environmental Engineering and Sanitation. While the CDC Aquatic Health Code reflects more current rules and guidelines, this Chapter 9 has a lot of good related information.
- An overview of pool inspection can be found on the International Association of Certified Home Inspectors web site at <https://www.nachi.org/pool-spa-inspection-checklist-sample-1.htm>. For extra credit you may consider taking the InterNACHI's free, online How to Inspect Pools and Spas course. A link to that course is included on the above web site.

Radiation Study Notes

- Review the following EPA web pages on radiation basics <https://www.epa.gov/radiation/radiation-basics> and <https://www.epa.gov/radiation/radiation-resources-outside-epa>
- Read Chapter 7, Radiation Uses and Protection, in Salvato, Environmental Engineering and Sanitation, 4th or 5th edition
- If available, read Chapter 9, Radiation Protection, in the NEHA REHS/RS Study Guide

Vector Control Study Notes

- View the SCPHP 08. Zoonoses, Vectors, Pests, and Weeds at <http://lms.southcentralpartnership.org>. It's best to use a PC for this link, and some browsers work better than others. You will have to sign up (free) for the course.
- A good read for Vector Control is Vector Control Methods for use by individuals and communities Prepared by Jan A. Rozendaal, published by the World Health Organization, at: http://apps.who.int/iris/bitstream/10665/41968/1/9241544945_eng.pdf
- Review Chapter 4 of the Healthy Housing Manual <http://www.cdc.gov/nceh/publications/books/housing/cha04.htm>. This is a good overview of vectors and controls
- An important concept in vector/pest control is Integrated Pest Management (IPM). A good brief overview of this topic is the EPA's Introduction to Integrated Pest Management. While written for pest control in a school environment, it explains IPM in an easy to understand way. A copy is

included on this DVD. Information on IPM from an agricultural standpoint can be found at <https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles>.

Wastewater Study Notes

- Read Primer for Municipal Wastewater Treatment Systems, and Technical Guidance for Inspections of Onsite Wastewater Treatment and Disposal Systems. Both documents are included on this DVD.
- Review Wastewater Treatment and Disposal, Chapter 4, in Salvato's Environmental Engineering and Sanitation, 4th or 5th Ed.
- View Septics 201, Septic Tank inspection, at <https://www.youtube.com/watch?v=jmBqNABTuPE>
- Be familiar with BOD, BOD5, and COD. Good summaries are at https://en.wikipedia.org/wiki/Biochemical_oxygen_demand
https://en.wikipedia.org/wiki/Chemical_oxygen_demand

Water Study Notes

- Read Chapter 3, Water Supply, in Salvato, Environmental Engineering and Sanitation, 4 or 5th edition.
- Review the EPA How to Conduct a Sanitary Survey of Small Water Systems, included on this DVD. It has a wealth of information.
- It is important that you understand chlorine chemistry, both for water (especially pools), and wastewater treatment. A good PPT presentation is included on this DVD. An excellent summary can be viewed at: <http://www.es2inc.com/wp-content/uploads/2011/07/Chlorine-Chemistry-for-Water-and-Wastewater-Treatment.pdf>
- Also, see: <http://www.hydroinstruments.com/files/Basic%20Chemistry%20of%20Chlorination.pdf>
- For lots of extra credit reading: <https://www.epa.gov/dwreginfo/sanitary-surveys>