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Citizens Against Covance

www.StopCovance.com/ - You can find a wealth of information at our web site, but if you want to learn more or do your own research, the following references may be helpful.

Biohazards and Infectious Diseases

www.protectchandler.org/health_threat_letter.php - Letter from Aysha Akhtar, M.D., M.P.H. to Susan Gerard, Director Arizona Department of Health Services.

www.cdc.gov/ncidod/eid/vol11no12/03-0045.htm - Bartonella quintana, cause of Trench Fever, gets past Covance quarantine.

www.vetpathology.org/cgi/content/full/39/3/363 - Cryptosporidia, a frequent cause of gastroenteritis outbreaks among humans, gets past Covance quarantine.

www.madison.com/archives/read.php?ref=/wsj/2006/12/01/0612010026.php - Tuberculosis gets past Covance quarantine.

www.fda.gov/oc/bioterrorism/bioact.html

www.sec.gov/Archives/edgar/data/1023131/000110465906070754/a06-22056_110q.htm - Click the *Risk Factors* link at the bottom of page 1.

www.cdc.gov/Ncidod/eid/vol12no06/06-0030.htm

www.cdc.gov/ncidod/dq/faq_animal_importation.htm#monkey

www.counterpunch.org/strickler12182003.html

<http://robincutson.com/BIODEFENSE.html>

Air Quality

www.pollutionissues.com/Ho-Li/Incineration.html

www.protectchandler.org/incinerator/ - Click *Download this report* to view the entire report.

www.no-burn.org - Global Anti-Incinerator Alliance, Global Alliance for Incinerator Alternatives.

Water Quality

What Happens to Covance's Animal Urine and Feces

Chandler Chamber of Commerce meeting June 27, 2006 - Covance Corporate Senior Vice President Wendel Barr admitted that Covance removes urine and feces from animal cages by hosing down the cages and directing the animal waste into drains that lead to the public sewage system.

Chandler Connection August 11, 2006 in the article "PETA: Covance may taint water" Covance spokesperson Camilla Strongin is quoted as saying, "All waste water is required to drain to a publicly-owned treatment works."

Drug Dosages

[www.rxmed.com/b.main/b2.pharmaceutical/b2.1.monographs/CPS-%20Monographs/CPS-%20\(General%20Monographs-%20Z\)/ZERIT.html](http://www.rxmed.com/b.main/b2.pharmaceutical/b2.1.monographs/CPS-%20Monographs/CPS-%20(General%20Monographs-%20Z)/ZERIT.html) (copy & paste) - "up to 399 and 183 times ... of that seen at a clinical dosage."

[www.rxmed.com/b.main/b2.pharmaceutical/b2.1.monographs/CPS-%20Monographs/CPS-%20\(General%20Monographs-%20P\)/PONSTAN.html](http://www.rxmed.com/b.main/b2.pharmaceutical/b2.1.monographs/CPS-%20Monographs/CPS-%20(General%20Monographs-%20P)/PONSTAN.html) (copy & paste) - "7 to 28 times the recommended human dose."

www.schoolasthmaallergy.com/2002-2003/sections/medications/PackageInsert/67451010.HTM - "38 to 338 times the human dose"

www.freepatentsonline.com/7015207.html - "300 times than the injection dosage for human being."

<http://opioids.com/tramadol/prescribe.html> - "3 to 15 times the maximum human dose or higher."

www.hmc.psu.edu/irb/news/2006/May2006FINAL.pdf - "tests in rabbits and monkeys that used doses up to 500 times as high as the doses received by the first group of volunteers"

Metabolizing Drugs

www.whp-apsf.ca/en/documents/pharmWater.html - "Between 50% and 80% of the active ingredients in medications are not absorbed by our bodies - we excrete them into the sewage system."

www.inchem.org/documents/jecfa/jecmono/v25je09.htm - "47% of the dose had been excreted in the urine and 7.1% in the feces."

www.drugguide.com/monograph_library/new_releases/deferasirox.htm - 30% of the drug deferasirox is excreted from the body, while 84% of the metabolites (compounds into which the drug is broken down) are excreted in feces.

www.emea.eu.int/pdfs/vet/mrls/005095en.pdf - "urinary drug recovery ranges from 80 to 100% of the total dose administered."

www.aapsj.org/view.asp?art=ps040424 - "a total of approximately 82% of the administered radioactivity was recovered" (i.e., excreted from the body).

Wastewater Facilities not Equipped to Remove Pharmaceuticals

www.epa.gov/esd/chemistry/pharma/faq.htm

www.sandiego.gov/water/waterreustudy/pdf/060130.pdf

Different Pharmaceuticals Require Different Technologies

www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=12322761&dopt=Abstract - Notes that some technologies were effective in removing some drugs while other technologies removed other drugs.

www.nature.com/embor/journal/v5/n12/full/7400307.html - "All this adds to the complexity of the problem and calls for individual solutions for individual pharmaceuticals and applications."

Removing Pharmaceuticals is Expensive

The Covance facility in Chandler will test drugs that have not yet been approved by the FDA. Some of these drugs will represent entirely new classes of pharmaceuticals for which treatment technologies may or may not exist. Chandler residents will not only be burdened with initial investments in sewage-treatment technologies in order to remove pharmaceutical contamination, but also with continual updates to these technologies in order to handle new classes of drugs.

www.sandiego.gov/water/waterreustudy/pdf/060130.pdf - "Orange County [California] is spending \$500 million"

[http://whqlibdoc.who.int/bulletin/2003/Vol81-No10/bulletin_2003_81\(10\)_768-769.pdf](http://whqlibdoc.who.int/bulletin/2003/Vol81-No10/bulletin_2003_81(10)_768-769.pdf) (copy & paste) - "Advanced water treatment technologies ... can remove drugs from potable water ... Municipal wastewater is never treated in this way because of a lack of suitable technology and the high economic investment required. Furthermore, the large numbers of different compounds that are released and the wide range of their properties and effects mean that comprehensive, large-scale monitoring programmes to test for the compounds would be extremely expensive and time-consuming."

Covance in Compliance

Covance claims it is in compliance with wastewater regulations. However, there are currently no state or federal regulations governing the pharmaceutical contamination of water.

www.sandiego.gov/water/waterreustudy/pdf/060130.pdf - "With thousands of varieties of prescription and over-the-counter drugs being sold, there are no government standards restricting any of them in drinking water or in effluent released into streams or lakes. Water and sewage agencies aren't even required to look for them — and most don't."

www.epa.gov/esd/chemistry/pharma/faq.htm - The Environmental Protection Agency is expected to begin monitoring the presence of pharmaceuticals in our waterways in 2008. Regulation is expected to follow shortly afterward.

Is the Water Safe?

<http://www.wef.org/NR/rdonlyres/AB4CBB3E-9184-447C-88F4-63C68940A72C/0/PacificSymposiumChristianDaughton.pdf> - Environmental Protection Agency PowerPoint® presentation: Pharmaceuticals as Environmental Contaminates: An Overview of the Science.

<http://pubs.acs.org/cgi-bin/abstract.cgi/esthag/2006/40/i07/abs/es051715a.html> - (March 1, 2006 *Environmental Science and Technology Online*) "At environmental exposure levels, the drug mix inhibited the growth of human embryonic cells"

HEK293, with the highest effect observed as a 30% decrease in cell proliferation compared to controls ... Our results suggest that a mixture of drugs at ng/L levels can inhibit cells proliferation by affecting their physiology and morphology.”

http://www3.interscience.wiley.com/search/allsearch?mode=viewselected&product=journal&ID=112474163&view_selected - (March 9, 2006 *Environmental Toxicology*) “The relevance of endocrine-disrupting compounds as potential contaminants of drinking water is reviewed, particularly in the reuse of wastewater. ... The variety of anthropogenic chemicals that have been identified as potential endocrine disruptors in the environment and the problems arising from their use as human and livestock pharmaceuticals, as agricultural chemicals and in industry are discussed. The potentially adverse impact of these chemicals on human health and the ecology of the natural environment are reviewed.”

<http://lib.bioinfo.pl/pmid:16823090> - (June 2006 *International Journal of Environmental Research and Public Health*) “There has been a great deal of international discussion on the nature and relevance of endocrine disrupting compounds in the environment. Changes in reproductive organs of fish and mollusks have been demonstrated in rivers downstream of sewage discharges in Europe and in North America, which have been attributed to estrogenic compounds in the effluent. The anatomical and physiological changes in the fauna are illustrated by feminization of male gonads. ... Neither basic wastewater treatment nor basic drinking water treatment will eliminate the estrogens, androgens or detergent breakdown products from water, due to the chemical stability of the structures. ... Populations for which only basic wastewater and drinking water treatment are available remain vulnerable.”

<http://toxics.usgs.gov/definitions/vocs.html> - "VOCs [Volatile Organic Compounds] are common ground-water contaminants." (On January 30, 2007, Covance applied for a Maricopa County air quality permit that includes VOCs.)

www.ehponline.org/members/1999/suppl-6/907-938daughton/daughton-full.html - "The enormous array of pharmaceuticals will continue to diversify and grow as the human genome is mapped. ... The number of targets is expected to increase up to 20-fold (yielding 3,000-10,000 drug targets) in the near future"

www.sciencenews.org/articles/20000401/fob1.asp

<http://toxics.usgs.gov/pubs/FS-027-02/>

<http://ag.arizona.edu/AZWATER/awr/july00/feature1.htm>

www.ehponline.org/docs/2000/108-10/forum.html

www.ehponline.org/members/2005/113-10/ehp0113-a00678.pdf

www.sciencenews.org/pages/sn_arc99/6_5_99/fob1.htm

www.epa.gov/esd/chemistry/pharma/book-summary.htm

http://pubs.acs.org/subscribe/journals/esthag-w/2006/mar/science/lt_drugsinwater.html

www.cbc.ca/story/science/national/2006/03/23/drugs-060323.html

www.newstarget.com/001891.html

www.annieappleseedproject.org/drugresconst.html

www.stevenspublishing.com/Stevens/WWPPub.nsf/frame?open&redirect=http://www.stevenspublishing.com/stevens/wwppub.nsf/d3d5b4f938b22b6e8625670c006dbc58/8b3ae66bc587171a862571e900593a2e?OpenDocument (copy & paste)

http://toxics.usgs.gov/highlights/pharm_chapter.html

www.sixwise.com/newsletters/06/02/16/pharmaceutical_pollution_what_it_is_and_how_pharmaceutical_pollution_threatens_your_health.htm (copy & paste)

<http://query.nytimes.com/gst/fullpage.html?sec=health&res=9B01E4D81339F937A25750C0A9649C8B63&n=Top%2fReference%2fTimes%20Topics%2fSubjects%2fW%2fWater%20Pollution> (copy & paste)

www.msnbc.msn.com/id/6299642/

www.scienceagogo.com/news/20020310224024data_trunc_sys.shtml

www.jhu.edu/news_info/news/home02/apr02/prescrip.html

www.sciencenews.org/articles/20020629/bob7.asp

www.annieappleseedproject.org/enis.html

Numbers of Animals

Use the statistics listed at the following web sites to extrapolate how many animals might be used at the 591,000-square-foot Chandler facility. Note that rats and mice are not included in these reports and that Covance claims 95% of the animals it uses are rats or mice. Therefore, whatever number you extrapolate represents only 5% of the animals Covance might use at its Chandler site, so be sure to multiple by 20! (We project Covance will likely use more than 240,000 animals annually at its Chandler site.)

www.aphis.usda.gov/ac/7023.html

www.strang-inc.com/intd/Covance3.pdf - Size of Covance's Madison, Wisconsin facility in 2004.

www.aphis.usda.gov/ac/7023/2004/2004Wisconsin.pdf - Number of animals at Covance's Madison, Wisconsin facility in 2004 - page 28.

<http://sec.edgar-online.com/1999/03/05/16/0000950146-99-000442/Section3.asp> - Size of Covance's Vienna, Virginia facility in 1999.

www.aphis.usda.gov/ac/7023/2002/2002Virginia.pdf - Number of animals at Covance's Vienna, Virginia facility in 2002 - page 8.

www.aesop-project.org/Primate_Trade/Primate_Trade_Imports.htm - Primate trade statistics 1995-2005.

<http://money.com/magazines/moneymag/bplive/2005/snapshots/37479.html> - Population of Chandler

Accidents

www.nts.gov/nts/query.asp - Chandler Municipal Airport crashes: Type a from and to date in the **Date Range** fields, type "Chandler" in the **City** field, select "ARIZONA" in the **State** field, then click near the bottom of the page.

<http://robincutson.com/BIODEFENSE.html>

Property Values

www.stopcovance.com/property.htm - You can read our summary and view our diagrams, or you can obtain property value information directly by making a public records request of the Fairfax County (Virginia) Department of Tax Administration.

Animal Cruelty

www.stopcovance.com/animal.htm - At this site, you can view all the relevant USDA Inspection Reports, as well as the USDA/Covance settlement agreement, or you can make a public records request at www.usda.gov/oig/foiareq.htm to obtain the information directly.

www.all-creatures.org/saen/articles-rep-break-appc.html - Top twenty violators of the Animal Welfare Act

www.youtube.com/watch?v=V1Gmm7RlggI - ABC 15 Investigates

www.youtube.com/watch?v=z8XlU6QRUG - FOX 10 News

www.usda.gov/oig/webdocs/33002-03-SF.pdf - Inspection report detailing deficiencies of the USDA Animal and Plant Health Inspection Service (APHIS)

www.youtube.com/verify_age?next_url=/watch%3Fv%3DuGmlWAqw2y8 - Undercover video that led to violations of the federal Animal Welfare Act.

www.covancecruelty.com/feat-tobacco.asp - Experiments involved "the chronic exposure of male beagle dogs to whole cigarette smoke and smoke enriched with carbon monoxide (CO)."

Covance and Big Tobacco

www.tabinfo.net/uploads/media/TABINFO_2005_Meeting_Point.pdf - Nov. 15 11:00 am. How can Covance support R&D needs of the tobacco industry?

www.covancecruelty.com/feat-tobacco.asp - Documents made public through a tobacco settlement reveal an intimate relationship between Big Tobacco and Covance (formerly known as Hazleton) over a period of more than 30 years. Experiments involved "the chronic exposure of male beagle dogs to whole cigarette smoke and smoke enriched with carbon monoxide (CO)."

www.globalink.org/tobacco/docs/ets/Covance.shtml

www.publications.parliament.uk/pa/cm199900/cmselect/cmhealth/27/0011326.htm

<http://tobaccodocuments.org/lor/89737834-7844.html>

<http://tobaccodocuments.org/pm/2505943328.html>

<http://tobaccodocuments.org/pm/2505945662-5663.html>

<http://tobaccodocuments.org/pm/2505943264.html>

<http://tobaccodocuments.org/pm/2084581190.html>