

Research on Resources for Selecting EPP Products for WPS Transportation and Facilities Departments

EPP Procurement Tool Reviewed & Evaluated	Activities	Findings/Challenges	Outcome
MRO vendors on COMMBUYS – Fastenal, Grainger, Home Depot and MSC	<ul style="list-style-type: none"> Started research by reviewing all vendor websites and searched for green products. Spoke to Julia Wolfe regarding challenges of using website. It turns out that the contract is a normal product contract that lists some EPPs. Found and reviewed webinar from Responsible Purchasing Network that explained how to use the websites. Julia was featured in the webinar as one of the speakers. 	<ul style="list-style-type: none"> Some vendors had a green catalogue that you could download. I was unable to. The EPP search format was best on Fastenal and MSC. The items listed were still more hazardous than WPS could switch to. MSC had hazardous items listed under green such as muriatic acid because it was low VOC! I submitted items identified as green on these websites, but had red flags, to TURI for their P2OASys screen and all but one were too hazardous for TURI to recommend. 	I found a few items to purchase for pilot from Grainger, Home Depot and MSC after an enormous amount of looking.
MRO vendors on COMMBUYS	<ul style="list-style-type: none"> Asked Grainger and MSC to send their spreadsheets with EPPs to make it easier to identify EPPs and reduce sorting time. Obtained and reviewed MSC spreadsheet. 	<ul style="list-style-type: none"> Grainger would not send theirs even after they requested, and we sent an official letter from the district. The spreadsheet from MSC had too little EPP information and the products that were EPPs were cleaning products. 	I stopped pursuing Grainger, except for checking their website when to see if they had a product that we had identified elsewhere and wanted to purchase off state contract.
Home Depot - https://ecooptions.homedepot.com/about-eco-options/	<ul style="list-style-type: none"> Checked their website for certified products as WPS can buy from them. They have categories of products but then trying to search for them found no icons on website. Reached out to them by email for their green program requesting guidance on how to search on the website but didn't hear back. 	Low/Zero VOC Paints: Follows the SCAQMD VOC limits for 2008. They recognize GREENGUARD Gold certification on several adhesive products. They have partnered with the Green Chemistry and Commerce Council (GC3) since 2014 to advance the adoption of green chemistry and safer alternatives to advance the adoption of sustainable products.	Project selected a few products for piloting. They had EPP products that the other three vendors on the MRO contracts did not have. We selected items to purchase, but then WPS dropped the contract with Home Depot.
The Home Depot and LEED (Leadership in Energy and Environmental Design) For Homes. It is the most recognized international standard for green buildings. Learn more	<ul style="list-style-type: none"> Reviewed web-based materials. 	LEED for Homes measures green building performance. Is based in the U.S. Green Building Council. HD offer products that may contribute towards LEED points and prerequisites.	

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<p>Smart Mind Transparency Format - MasterFormat® filtering, aligned with MasterSpec®, to enable purchasers to find exactly the brands, products and transparency disclosures to meet requirements in each division and section.</p> <ul style="list-style-type: none"> Provides building product manufacturers in N. America investing in product transparency, from material ingredient disclosure program and EPD program operators on one page. Provides EPD for products used in America – in one place. 	<ul style="list-style-type: none"> Reviewed their proposed products and only found a few coatings, mostly paint. Checked the 4 SWC websites but couldn't find the products, except paint at home depot. Some paints are mainstream companies such as Behr (from Home Depot). 	<ul style="list-style-type: none"> Can go directly to product pages on manufacturer's web sites to get all the information they provide. Can filter results further by choice of green building rating system product transparency credits. Not the type of maintenance and repair project products we need. 	<p>I prefer to use the Master Paint Institute specifications and related certified companies for selecting paint as it is more straight forward for what facilities Departments need..</p>
<p>Green Seal GS-11 - Paints, Coatings, Stains, and Sealers</p>	<p>Downloaded and reviewed specs.</p>	<ul style="list-style-type: none"> They mainly look at VOCs 	<p>Decided to use the Master Paint Institute certification which covers more criteria, unless the only paints available from vendors are Green Seal Certified.</p>
<p>Healthy Building Network (HBN)</p>	<ul style="list-style-type: none"> Reviewed information. 	<ul style="list-style-type: none"> They administer Pharos, which has profiles of over 34,400 chemicals and materials commonly found in building products in this subscription-based database. Incorporates information from 60 lists from governments worldwide, the profiles describe a substance's potential health and environmental impact by ingredients. The database also includes health and environmental evaluations of 1,600-plus building products, searchable by manufacturer, product name, CSI category, and ratings from more than 250 sustainable and product certification programs. 	<p>Can use this database to evaluate products found on SWC.</p>

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<p>Environmental Building Network (EBN) - Obtained a subscription to Buildgreen, from Environmental Building News as it used to provide the Green Spec Directory for screening EPP products.</p> <p>Predating the U.S. Green Building Council by one year and LEED by several, EBN became the bible of the emerging green building movement. It turned down advertising and sponsorships in its publications, providing unbiased, trustworthy information and guidance.</p> <p>Please note that EBN used to provide some of the most easily accessible and useful emerging information on EPP products for building.</p> <p>They changed to -----a near-crisis during a glut of certifications in the late 2000s to the turmoil of transparency data and formats in recent years.</p>	<ul style="list-style-type: none"> Reviewed information on their website and found that they still have great articles but no longer really recommend products. Spoke to rep at their company at length about why they no longer maintain and provide the Green Spec Directory which was so helpful on providing information on EPP products and emergency research on new product technologies. They said that it is too much work keeping up with new products and they will do it for a fee per project by contract. 	<p>Green spec directory is no longer available.</p> <p>They have product guides to more than 100 product categories on selecting EPPs that avoid negative health impacts.</p> <ul style="list-style-type: none"> They provide criteria, not product listings. The information provides a more in-depth understanding of product issues. <p>They now provide BuildingGreen + Designer Pages as a subscription. It is a designer's tool for finding EPPs. They claim that their editors have evaluated thousands of building products. This new web platform, Designer Pages, is a challenge to use:</p> <ul style="list-style-type: none"> There are general manufacturer references, and few specific product references. Weblinks do not always work. Weblinks take you to the general manufacturer website and not to a specific third-party certified line of products. Contacted the manufacturers directly finally to track down the green line of products was not helpful as I was told just to google products. I did not see any commentary on the products I was seeing on the Greenbuild website as it was set-up to members who host a project page and upload documents. The spreadsheet download was useless to glean real product information. It was only useful in that it listed products. I still had to go elsewhere to find the green line of those products and information on them. 	<p>They sent me the old outdated version of Greenspec per my request, but it is outdated now and was minimally helpful to identify products.</p> <p>WPS subscribed to the publication for a year, which is most useful for articles.</p>

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Master Paint Institute (MPI) certification	Reviewed their specifications and background information.	<ul style="list-style-type: none"> They have more stringent criteria than green seal, and look at more than VOCs. 	Decided to use this certification whenever possible.
Materials Analysis Tool (MAT) http://www.materialanalysis.ca/ A free online ranking system that distills manufacturer information to assist in the selection of building products that are more cost effective, healthy and environmentally responsible. Oikos	<ul style="list-style-type: none"> Tried to follow-up information 	<ul style="list-style-type: none"> Link did not work 	dead end
Collaborative for High Performance Schools (CHPS) is a certification system similar to LEEDS, but is specific for school buildings. It has its own Pre-Approved Product Page through partnerships with third-party web-based resources, ZeroDocs and Sustainable Minds . This enables schools to get product related credits without having to do their own searching.	<ul style="list-style-type: none"> Checked CHPS new listing of <i>low emitting, recycled content, certified wood, or rapidly renewable products</i> in CHPS Pre-Approved Product page at ZeroDocs.com/CHPS. 	<ul style="list-style-type: none"> CHPS follows CDPH/EHLB/Standard Method v1.2 for low VOC materials. CHPS Products approved as low emitting also meet LEED v4/4.1 requirements¹. ZeroDocs and Sustainable Minds are free to search. The listings include some EPDs and HPDs. To identify CHPS Pre-Approved Products, must look for the CHPS letter or certificate linked on the product page. For California projects, the “CHPS High Performance Products Database” in CALGreen 5.504 refers to the CHPS ZeroDocs page. 	Did not find any maintenance products for the trades.
Calrecycle - https://www.calrecycle.ca.gov/greenbuilding/materials	<ul style="list-style-type: none"> Checked resources which led me to the BEES software as the product selection tool. 	<ul style="list-style-type: none"> BEES <i>Online</i> provides sustainability performance measures of building products by using Life-Cycle Impact Assessment - ISO Standards. 	Couldn't use.
BEES (Building for Environmental and Economic Sustainability) by the National Institute of Standards and Technology's (NIST's) allows designers, builders, manufacturers, and consumers to select cost-effective, EPP building products based on consensus standards and designed to be practical, flexible, and transparent.	<ul style="list-style-type: none"> Searched remodeling as it was the only maintenance related category that wasn't cleaning. 	<ul style="list-style-type: none"> It quantifies life-cycle environmental and cost performance for 230 building products. Products are evaluated across 12 environmental-impact categories— (including IAQ, human health) to generate an overall score that simplifies comparisons within a specific category. The categories can be individually weighted, as can environmental and economic performance. 	Only had 2 relevant products, which were not available SWCs.

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Mindful Materials - (mM) is a free platform with aggregated information on human health and environmental impacts for products from leading manufacturers.	<ul style="list-style-type: none"> Reviewed web materials. 	<ul style="list-style-type: none"> Mindful Materials makes it feasible to use information from multiple sources by linking HPDs, Declare labels, C2C certifications, and other documents to specific products. 	It is not a certification organization. Can be used to find information from multiple sources.
State EPP contract criteria (Minneapolis, Oregon, Washington, etc.)	<ul style="list-style-type: none"> Searched and reviewed specs from several states. 	<ul style="list-style-type: none"> When you can find this information, it is useful information if you are seeking to develop product specifications for a bid. 	Information was not useful for product sourcing and selection.
Declare database by the International Living Future Institute , is a free resource to take complex data into a simple label for designers. Declare is a transparency platform and product database that is changing the materials marketplace. It lists building products whose ingredients have been fully disclosed and vetted against the Portland, Oregon-based organization's Red List of the 22 "worst-in-class toxic chemicals pervasive in the environment," says James Connelly, director of the Living Product Challenge .	<ul style="list-style-type: none"> Reviewed web-based materials. Checked products. 	The database contains 350 product labels, each with an ingredients list, Declare status, assembly location, life expectancy, and end-of-life options. A Declare label answers 3 questions: <ol style="list-style-type: none"> Where does a product come from? What is it made of? Where does it go at the end of its life? Products are labeled as follows: <ul style="list-style-type: none"> Red List Free; LBC Compliant, if they contain a Red-List chemical allowed in the Living Building Challenge (LBC); or Declared, if the Red Listed chemical is not LBC-exempt. 	Only found one product for our applications, otherwise has building materials. Couldn't find the 1 product on any of the three sites. Can be used to evaluate products on SWCs as the red list is organized by toxin and CAS#.
Quartz Project <i>Launched: 2015</i> This recent launch by Google, Healthy Building Network (HBN), Flux (a spinoff from the Google[x] lab), and life-cycle analysis consultants ThinkStep presents data relating to the health and environmental impact of 100 generic building materials.	<ul style="list-style-type: none"> Reviewed web-based materials. 	Intended as a resource for researching products prior to procurement, it comprises brand-agnostic profiles for common products, ranging from acoustic ceiling panels and drywall to structural steel cables, and is searchable by the Construction Specifications Institute MasterFormat classification and keyword. The HBN compiled health-impact data from a variety of sources, which are cited at the bottom of each profile, while ThinkStep provided the environmental impact data. The database is open access to encourage usage and feedback.	Reviewed product info which is old. Has been replaced by HBN "Pharos".

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Environmental Working Group	<ul style="list-style-type: none"> Checked all resources on website 	<ul style="list-style-type: none"> Have cleaning and personal care products 	Does not screen for products used by project
Precautionary List by Perkins https://transparency.perkinswill.com/lists/precautionary-list?filter=1G0IA7.Z9iNqm.GtTdP.56jVA	<ul style="list-style-type: none"> Reviewed. 	<ul style="list-style-type: none"> Can browse substances of concern by project type, product type, CSI specifications, and hazards 	
Health Product Declaration (HPD) <p>The HPD Open Standard is a standard specification for the accurate, reliable and consistent reporting of product contents and associated health information, for products used in the built environment.</p> <p>The HPD Open Standard specification is harmonized with programs of International Living Future Institute, Cradle-to-Cradle Product Innovation Institute, Clean Production Action, BIFMA, LEED, WELL and a growing number of rating and certification standards in the building industry.</p>	<ul style="list-style-type: none"> HPDs were referenced in numerous places, thus I researched it. 	<ul style="list-style-type: none"> The HPD Open Standard enables a company to report on the chemical ingredients of their products, including fully disclosing contents at the substance level, to as low as 100 ppm, or as a residual. It provides for reporting of health hazards for substances reported in the product. It defines a set of Priority Lists for the reporting of hazards. Lists are primarily selected based upon criteria developed for the GreenScreen® for Safer Chemicals (http://www.cleanproduction.org/Greengreen.php). For full details on the hazard criteria used, see Appendix C of the HPD Open Standard version 2.0. This is available by clicking on this link. 	<p>An HPD does not identify "safe" or "unsafe" chemicals.</p> <p>When a manufacturer publishes and uploads it to the HPD Public Repository, it is considered a "Public HPD."</p>
Uploaded HPDs are searchable and available to be downloaded by users.			
US Green Building Council - transforming how our buildings are designed, constructed and operated through LEED .	<ul style="list-style-type: none"> Although I was aware that the LEED certification program doesn't certify products, and just gives credits for using certified EPP products, I searched the website for possible references to sourcing green products. 	<ul style="list-style-type: none"> LEED (Leadership in Energy and Environmental Design) is a green certification program for building design, construction, operations and maintenance. LEED is based on prerequisites and credits that a project meets to achieve a 	They have a Center for Green Schools, but this is not a source of information on sourcing EPPs.

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		certification level: Certified, Silver, Gold and Platinum.	
Green Guide for Healthcare , a project of the non-profit organizations Health Care Without Harm (HCWH) and Center for Maximum Potential Building Systems (CMPBS) from Healthcare Without Harm.	<ul style="list-style-type: none"> Reviewed web-based materials. 	Does not endorse products nor recommend for or against the purchase of specific products. In some instances, the <i>Green Guide</i> references generic product types that may contribute to achieving credit goals.	Was not useful for selecting products for our project.
GreenGuard Plus certification for schools and sensitive populations	<ul style="list-style-type: none"> Evaluated certification criteria. Downloaded and reviewed lists of products certified. Sought to find certified products on MRO contracts. 	<ul style="list-style-type: none"> Could not find most of the products they certify on the SWC. The certification still allows teratogens and carcinogens. It is used by LEED and other green building rating systems. 	Do not recommend this certification.
United Laboratories (UL) IAQ Certification Program UL bought out Greenguard. Claims to be the world's first comprehensive IAQ certification and preventative maintenance program. Addresses moisture, VOCs, airborne PM, IPM and other aspects of IAQ and provides the Certification Holder with a third-party UL/GREENGUARD Certification.	<ul style="list-style-type: none"> Searched items on their website through their "Sustainable Product Guide". Explored use of the various screens which were extensive. Selected products and searched on all the 3 vendor websites on SWCs. 	<ul style="list-style-type: none"> If you used too many screens, there were no available products. Most of the truly EPPs on their website were not available on any websites of the 3 vendors on SWCs. 	I do not trust the Greenguard certification as noted above.

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Acronyms

ASTM

BEES (Building for Environmental and Economic Sustainability)

CHPS

EPD

EPP

HVAC

IAQ

MasterFormat®

MasterSpec®

MRO

P2OASys - Pollution Prevention Options Analysis System

ⁱ CHPS Section 01350 Part 1.3B and 1.4D and GREENGUARD Allowable Emission Levels by the US Access Board (an independent federal agency that promotes equality for people with disabilities through leadership in accessible design and the development of accessibility guidelines and standards. Created in 1973 to ensure access to federally funded facilities, the Board is now a leading source of information on accessible design. The Board develops and maintains design criteria for the built environment, transit vehicles, telecommunications equipment, medical diagnostic equipment, and information technology.)

The CHPS Section 01350 protocols and the Green Guard Certification for IAQ data require the same chamber testing. The CHPS protocols and calculations go further than the Green Guard Certification Standards in that the designer is required to take published emissions rates and perform calculations based on the amount of material to be installed in the building and the zones and air handling capabilities of the HVAC systems in those zones. Also, the allowable emission level for formaldehyde is lower in the CHPS standard than the Green Guard standard. See the discussion below for more information on formaldehyde. For both standards, all building materials are required to be tested in dynamic environmental chambers following ASTM standards D-5116-97 and D-6670-01, the U.S. Environmental Protection Agency's testing protocol for furniture and the State of Washington's protocol for interior furnishings and construction materials. Products are measured for emission levels according to the parameters set forth in the ASTM Standard for emissions testing.

[California – Practice for Testing of VOC's from Building Materials Using Small Chambers.](#)

In some cases, the Green Guard standards may appear to have lower standards for emissions of some VOCs than the CHPS Section 1350 standards. However, the person selecting materials for the building must bear in mind that the CHPS standard requires a detailed calculation for the building, the amount of material to be installed and the air change rate of the HVAC systems. Green Guard emissions standards are based on a "standard" model of a building, and a "standard" exchange rate of fresh air in the building.