

St. James Anglican Church Greening Working Group Report on Cleaning

“May our corner of the earth join us in blessing the Lord.”

Purpose of this Report:

The Corporation of St. James Anglican Church, Dundas, Ontario, requested the Greening Subcommittee of the of the Peace and Justice Group working group to present a report about the way the church is cleaned and maintained in order to create a church environment that is environmentally sustainable and non-toxic. The report was prepared by Sheila Russell with help from Rev Bill Mous, Sue Carson, and Michael Fellowes.

1. Introduction

The need for safe products

The Corporation of St. James identified a need to evaluate the chemicals used in our building with a view to improving air quality and safety. Green cleaning will be a blessing to our building and to all who enter it.

Bishop Michael, in a recent letter to the Diocese of Niagar, has also identified a need to make our buildings sustainable and healthy for all who use them, and to do all that we can to mitigate global warming and our negative impact on creation.

There is a growing concern among faith groups about the need to maintain church buildings in ways that do not harm the environment or human health. The Greening Sacred Spaces organization, a sub-group of Faith and the Common Good, has provided some helpful resources (*GSS Health and Sustainability Daily Operations Guide - Green Cleaning*). We have also received help and encouragement from Environment Hamilton and the Conserver Society.

Many resources on this topic can be found on the Internet. A good place to start is www.faith-commongood.net.

A number of books published in recent years have also helped to raise awareness about the toxicity of many cleaning products:

Home Safe Home: Protecting Yourself and Your Family from Everyday Toxics and Harmful Household Products, by Debra Lynn Dadd

What's in This Stuff?: The Hidden Toxins in Everyday Products and What You Can Do About Them, by Pat Thomas

Green Housekeeping, by Ellen Sandbeck

Ecoholic: Your Guide to the Most Environmentally Friendly Information, Products & Services in Canada, by Adria Vasil

Several large retail stores (Home Depot, Rona, Home Hardware, Fortinos, Canadian Tire) now carry safer cleaning products. Home Depot itself uses the Eco Mist products (mentioned later in this report) to clean its facilities.

A note on the history of toxic cleaning products

Following World War I, the servant class had mostly joined the regular workforce, having benefited during wartime from the wages and working conditions that were better in manufacturing and industry than they had been in private homes. Chemical cleaning products were developed to provide easy substitutes for the endless scrubbing and polishing carried out by servants. These products often used materials that had been developed for wartime use (such as chlorine and petroleum) and created new markets for them.

After World War II, as many women gave up their employment to work in the home, an enormous ideology developed about the necessity of using more and more powerful products to create clean indoor environments: shining surfaces, sparkling laundry, germ-free kitchens and bathrooms, and so on. This process only accelerated when women returned to the workforce later in the century and tried to combine working with the still-prevalent ideology of the perfect home.

It has been clear for some decades that the toxic ingredients in many, if not most, cleaning products are damaging to the air, soil and water, create greenhouse gases, and affect the health of humans who come into contact with them. We are surrounded by these products and their residues, with implications for our current high rates of cancer, respiratory diseases, childhood asthma, and other illnesses.

Any faith community can undertake to reassess how the cleaning products we have been using might be replaced to make our buildings safer and more pleasant places to be.

Efficiency

The ideology regarding cleaning chemicals is so pervasive that many people believe that a building cannot be cleaned properly or efficiently without fast-acting, strong-smelling chemicals. This means that many people share the incorrect assumption that safer products will give inferior results. In fact, it is possible to clean well, with no toxic residues, using the newer and safer products. We need a new green cleaning ideology that respects creation.

We need to ask whether any health or environmental risk is worth tolerating in order to have shining surfaces.

This report will recommend the least toxic means of achieving a clean indoor environment that we can all enjoy.

The Need for Flexibility

A faith community can begin to follow a new direction by choosing the recommended products, but if that product is problematic or unsatisfactory, another product can be chosen instead. This report will propose different possibilities for the various cleaning tasks.

2. General Issues

This section of the report considers some issues to take into account before examining the actual cleaning materials that are best to use.

Section 3 contains recommendations for cleaning products that might be used in different areas by all the different groups that use the buildings in a faith community. Current products in use should be evaluated using the Material Safety Data Sheets (MSDS) available for all such products. This report suggests safer alternatives.

Restrictions and Priorities

This report will restrict its focus within the following guidelines:

1. Suppliers: the report considers only Canadian suppliers, preferably within our geographical area (Southern Ontario). This will minimize transportation distances and shipping costs.
2. Scented Products: "Scent-free spaces are the first step in showing sensitive community members that they are important in our sacred spaces" (Stephen Collette *Chemical Reactions - Creating Healthy Sacred Spaces*). We need to be concerned about air quality, and chemical ingredients listed as "scent", "perfume", or "fragrance" are unregulated. Some are known carcinogens and lung irritants. Therefore no products using artificial scents are considered. This includes a recommendation to discontinue the use of deodorizers and air fresheners in washrooms. These products are not only scented, but also include chemicals such as benzene, which are toxic.
3. Simplicity: This report has the goal of making the cleaning a large building, such as a church, synagogue or mosque, simpler and streamlined in the following ways:

Products with multiple uses: This avoids using numerous specialized formulas for specific tasks. Some concentrated products can be diluted to different strengths for different cleaning jobs.

Simplified procedures: The report will not recommend procedures that require too many separate steps or different products.

Simple formulas: When appropriate, the report will recommend using simple formulas, such as vinegar and water for some surfaces (washroom tiles and some floors). Simplified cleaning methods using vinegar, borax and baking soda also have the advantage of being

inexpensive. We should not increase the workload of the cleaner by insisting on homemade formulas; rather, we should use these methods when they are easy and effective e.g. sprinkling borax in toilets, using vinegar and water (see *Recipes on the Green Sanctuaries website and in the books recommended earlier*)

Avoiding overuse: The cleaning person should use the minimum amount of a cleaner required to get the job done. More is not better.

No disposables: Disposable mops and wipes create large amounts of toxic waste.

4. Cost: It is difficult to predict what the overall cost saving might be. Stephen Colette suggests that adopting green cleaning methods will save money. Simplifying cleaning materials and procedures should also help the budget. Although some individual products may be more expensive than what is used at present (e.g. dishwashing products, hand soap), the overall cost should not increase.

Hiring a Cleaner

Update the job description to include references to the faith community's desire to be responsible stewards as we strive to care for creation.

Decide whether to hire a janitorial service or an independent cleaner. In either case, it is essential that the cleaner be committed to cleaning the building in a safe and sustainable way, and will understand the importance of the health and environmental issues involved.

Janitorial service: Advantages include the fact that most services provide their own cleaning materials and equipment. Some cleaning services undertake to provide green cleaning. One noteworthy disadvantage is that pay and working conditions for workers in this service industry are notoriously poor, as Jan Wong noted in a series she prepared for *The Globe and Mail* a year or so ago. Always examine the MSDS information on the products used by the service. Many products claim to be "green" or "natural" but contain toxic ingredients.

Independent Cleaner: Advantages include the fact that the church community can have a personal relationship with the person. The independent cleaner will retain all the money paid for cleaning. The faith community can negotiate exactly what types of cleaning materials are best both for the cleaner and the building.

Sanitation and Public Health Department Regulations

These regulations apply only to areas involving food preparation. Dishes washed in a commercial sanitizer do not require further disinfectant. Surfaces on which food is prepared must be wiped down with one of three solutions:

- i. Chlorine bleach concentrated to a strength of 1 teaspoon per 4 cups of water;
- ii. Quaternary ammonium compound in a solution of 200 ppm;
- iii. Iodine in a solution of 200 ppm.

These have been the only disinfectants approved by Public Health. The bleach is at a much lower concentration than is currently used. Recently, however, other disinfectants have been added to this list if they have a Health Canada certification (DIN number).

There are no regulations covering the products to be used in cleaning washrooms or any other areas. It is worth noting that towel dispensers in washrooms may not be sanitary or efficient, such as the ones with a push-down lever. People touch the lever with wet hands, transferring germs to the next person. A simpler dispenser with a pull-down roll is more sanitary and easier to use.

Examining products now in use:

The products currently used in the building should be scrutinized. Many of them likely use petroleum as a major ingredient (thus increasing our carbon footprint), some may be fire hazards, or health hazards, and some will require that the worker use personal protection such as mask, protective apron, shoes, and gloves. Most produce carbon dioxide. Many will contain fragrance or scent, substances that are irritating and even hazardous to many people. (See *What's in My Cleaning Products, Exactly?*; also see the Glossary in Patricia Thomas: *What's in This Stuff?*)

Protective measures must be followed if the faith community decides to continue to use these materials. However, we need to remember that if these materials are hazardous to the person using them, the residues on surfaces and in the air represent a health hazard to anyone in the buildings. If the decision is made to discontinue them, the community must decide whether to use them up or discard them immediately as hazardous waste.

A few examples of products that are most desirable to replace as soon as possible might be:

- ? Various Cleaners (may represent fire hazard, health hazard; contain ethanol, propane, butane).
- ? Deodorant Blocks/ Urinal Pucks (contain scent, dichlorobenzene, chronic exposure may cause liver and kidney damage and affect CNS).
- ? Floor Stripper (often represents a serious health hazard, contains ethanols, scent).
- ? Drain Cleaner (severe health hazard, requires a face shield, produces toxic gases and vapours, contains sulphuric acid).
- ? Stainless Steel and Metal Polish (may be a serious fire hazard, contain acetone and liquefied petroleum)

- ? Bleach: Many buildings use significant amounts of bleach. We are only required to use bleach to sanitize surfaces used for food preparation, in the form of weak dilutions, and only if we choose that option. Bleach is a highly toxic substance, despite its availability and widespread use. The Canada Mortgage and Housing Corporation recommends *against* using bleach to deal with mold or mildew. Instead, they recommend washing the surface with detergent and water. If these growths persist, the underlying moisture problem needs to be dealt with.

In addition, some less hazardous products should be discontinued or phased out and replaced as soon as possible with more environmentally friendly alternatives. These may represent slight health or fire hazards, usually contain scent and/or petrochemicals:

- ? Furniture Polish
- ? Dust Mop Treatment
- ? Automatic Dishwasher Detergent
- ? Dish Soap
- ? Hand Soap
- Floor Wax or Polish

Information about these products, with the exception of bleach, is taken from the Material Safety Data Sheets available for all such products.

Cleaning Cupboard and Equipment

The cleaning cupboard should be an attractive and healthy workspace for the cleaner. If the space is substandard, it needs to be cleaned out and improved. Inadequate equipment should be replaced. It is desirable to use space that is large enough, pleasant, and well-organized for the storage of materials and equipment. It is highly desirable to have a vacuum cleaner with a HEPA filter. Microfibre mops and dusters can be very useful..

Multiple Users of the Building

Many different groups use the building, and may sometimes bring in various supermarket products. It will be important to inform them clearly of any changes in policy regarding products to be used in the building and to ensure that the chosen materials are clearly labeled and readily accessible to any groups for their use.

Other Factors Affecting Air Quality

There may be many factors causing compromised air quality in a building. These may include dampness, gas leaks, mold, office chemicals, building and furnishing materials and so on. All of these possibilities should be investigated.

3. Recommendations

This section will be as detailed as possible, given some constraints, such as the amount of volunteer time available and the great difficulty involved in making any reliable comparisons with regard to cost and efficiency. Research into ingredients along with trial and error is the best way to implement a green cleaning programme.

The ideology about the need to use toxic materials to clean buildings is changing rapidly, perhaps as a reflection of our awareness of the harm these products can do to humans and the environment. There is a proliferation of green products to choose from, some more green than others. MSDS sheets are useful for evaluating them.

The essential point to bear in mind is that the products we have been used to are usually far too strong and toxic for the relatively straightforward task of keeping our buildings clean.

MSDS Sheets: Material Safety Data Sheets are an important safety guide for our cleaners and whoever supervises the cleaning. They give information about health hazards, flammability, spill procedures, and reactivity with other materials. They provide a guide as to what type of precautions and protective clothing should be used with a product. Specific chemicals mentioned in these sheets can be further researched with a book like Patricia Thomas, *What's In This Stuff?* and many others, or on the Internet.

If ingredients are not listed in Section 2 of an MSDS sheet, they are of types and concentrations that are not determined to be hazardous. The manufacturer can be asked for a specific list, even if the product is a proprietary formula.

Anyone seeking information about any product or ingredient should contact the Canadian Centre for Occupational Health and Safety in Hamilton at 905-572-4440.

Even the safer alternatives often require protective equipment: the cleaner and supervisor should ensure that these are supplied and used. MSDS sheets include information about the protective equipment required.

Commitment: The commitment of the faith community and the new cleaner to green cleaning is of the utmost importance if a new direction is chosen. The choice of products and methods is broad, information is widely available, and

the goal of a safe and environmentally friendly worship space is achievable. Making this change will involve a number of decision and some extra work for all concerned, but this will all be easier if commitment to the goal is kept in mind.

RECOMMENDATIONS FOR SPECIFIC AREAS

Suggested products are followed by a list of manufacturers the first time they are mentioned. Subsequently, just the products will be mentioned.

Washroom Products

Sinks, Counters, Walls, Painted Surfaces: Vinegar/water 50-50, All -Purpose Cleaner (Eco-Mist, Nature Clean, Simply Clean, Eco-Max, Caeran) Tub and Tile Cleaner (Nature Clean, Eco-Mist, Eco-Max)

Toilets: Borax, All-Purpose Cleaner, Toilet Bowl Cleaner (Nature Clean)

Drains: Drain Cleaner (Nature Clean, Simply Clean)

Mirrors: Microfibre Cloth; Vinegar/water, Glass and Window Cleaner (Eco Mist, Nature Clean, Eco-Max, Simply Clean, Caeran)

Other: Calcium and Lime (Vinegar, Eco-Mist)

Hand Soap: Nature Clean, Caeran

Kitchen Products

Miscellaneous Surfaces: Vinegar/water, All Purpose Cleaner

Stainless Steel: Stainless Steel Cleaner (Eco-Mist)

Glass: Glass and Window Cleaner

Dish Soap: Dishwashing Liquid (Simply Clean, Nature Clean, Caeran)

Sanitizer Detergent: Dishwasher Powder (Nature Clean, Caeran) Powdered detergent is generally less toxic than liquid.

Stove and Heavy Duty Cleaning: Heavy Duty Cleaner/Degreaser (Eco-Mist, Simply Clean, Eco-Max, Nature Clean); Oven Cleaner (Nature Clean, Simply Clean)

Floors: All Purpose Cleaner, Floor Cleaner (Nature Clean) Neutral Cleaner (Eco-Mist)

Disinfectant: Nature Clean (DIN# 02250381)

Other: Non-Chlorine Liquid Bleach (Nature Clean)

Floors:

The product used will depend on the floor being cleaned. The use of harsh chemicals should be minimized, and the simplest cleaner that will do the job is best. Floor finish or wax should not be used unless required by the floor manufacturer.

Vinegar/water, Floor Cleaner, Neutral Cleaner, Floor Stripper (Enviro-Solutions)
Floor Finish (Enviro-Solutions)

Carpets and Upholstery

Carpet Pre-Spray (Eco Mist,) Carpet Cleaner (Eco Mist, Eco-Max) Stain Remover (Eco Mist)

Furniture

Dusting: Microfibre cloths and mops

Polishing: Furniture Polish (Nature Clean, Eco Mist)

Other Chemicals and Cleaners

Alternatives can be found for items such as brass cleaner, dehumidifier products but will require further research beyond the scope of this report. The use of pesticides should be discontinued, and once again, alternatives can be found.

Antibacterial Products

These should be avoided because they are thought to contribute to the spread of antibiotic-resistant bacteria.

Paper Products

G.T. French carries the Cascades products which cause considerably less environmental damage than other products.

SUPPLIERS

Eco-Mist

Woodbridge Ontario 1-905-362-8810

www.ecomistsolutions.com, tfagan@ecomistsolutions.com (owner)

Contact person (sales) Paul

This supplier was extremely helpful, sending information, MSDS sheets, and samples very quickly, answering questions promptly. However, the MSDS sheets do not list all ingredients in section 2. The supplier is currently working on producing floor products such as floor stripper and floor finish. Eco Mist makes both professional and household products. They will sell in case lots if you call directly, and these will be cheaper than retail.. Cleaner-Degreaser can be diluted 1 oz per gallon of water to use on floors.

Professional Products:

Hardwood and Laminate Cleaner

All- Purpose Cleaner

Stainless Steel Cleaner

Grout Cleaner

Granite and Stone Cleaner

Concrete and Masonry Cleaner

Calcium and Lime Cleaner

Carpet Pre-Spray

Carpet Concentrate

Cleaner-Degreaser

Neutral Floor Cleaner

Household Products:

Numerous.

Availability: Sold at Home Depot. Professional Cleaners: \$8, Refill \$20, Household Cleaners \$6.49 Cheaper from Manufacturer.

Nature Clean

Markham, Ontario 1-905-940-1107

www.naturecleanliving.com

Contact person : Carrie Chamberlain carrie@franktross.com

This company manufactures a wide variety of products, widely available, including some not manufactured by other green suppliers, such as the Household Disinfectant. They do not make floor stripper or floor finish. Very helpful.

Products include:

All Purpose Cleaners
Kitchen and Bathroom Cleaners
Hand Soap
Floor Cleaner
Heavy Duty Cleaner
Glass Cleaner
Dishwasher Powder

Availability: sold at many large retailers such as Canadian Tire. Cheaper from distributor: Grassroots 416-466-2841 www.grassrootsstore.com. Commercial rate is cheaper than retail. Minimum order \$100. Shipped by Canada Post or Fed Ex, whichever is cheaper. Bulk sizes (18 litre jugs with taps) available for refilling. 1 week turnaround. To order, call 1-416-642-1201 X201 (Josh).

EcoMax

Oakville, Ontario 1-888-538-3300
www.prismcare.ca, fborges@prismcare.ca
Contact person: Sheldon Borges

This supplier was very helpful with information and willing to answer questions. The MSDS sheets do not list all ingredients in Section 2. The company has recently developed more bathroom and floor products but these are not yet on the website. The floor products should be compared for health and environmental impact with the Enviro-Solutions products to see which are preferable.

Products:

Scent-free Ultra Multi-Purpose Cleaner
Scent-free Ultra Bathroom Cleaner
Scent-free Ultra Carpet and Upholstery Cleaner
Scent-free Ultra Glass Cleaner
Scent-free Heavy Duty Cleaner and Degreaser

Availability: Distributed by Icegreen david@icegreen.ca 1-416-717-1846
\$300 minimum order. Prices range from \$60 to \$100 for a case of four 4L containers.

Simply Clean

Guelph, Ontario 1-888-313-3369
www.simplyclean.ca
Contact person: Susan Cina susan.cina@puresource.ca

The contact person was very helpful, sent some coupons for the products and a recipe booklet for some simple cleaners. This company manufactures a concentrated (5X) vinegar.

Products

Dish Detergent

Super Cleaner

Vinegar Plus

All Purpose Cleaner

Availability: Sold in natural food stores.

Distributed by Pure Source 1-800-265-7245; susan.cina@puresource.ca

Prices from distributor are 25-40% less than retail prices at natural food stores, Bulk Barn and some grocery stores. Free shipping on orders over \$300.

Set up an account on the website www.puresource.ca and catalogue will be sent.

Enviro-Solutions:

Peterborough, Ontario 1-877-674-4373

www.enviro-solution.com

Contact person: Chris McGriskin mcgriskin@enviro-solution.com

The company manufactures products suited to very large institutions, with dispenser systems and large volumes. The products are not quite as safe or as environmentally friendly as some of the other products examined, but they do make products for floors that might be useful for large buildings. This contact person sent a lot of information and selected the most appropriate products for floors, carpets, and other cleaning. Generally they are stronger than we need to use in our situation, being designed for much larger institutions. It is difficult to find green floor stripper and floor finish, but these products are less toxic than those we have been used to.

Products

Concentrated Floor Stripper

No Zinc Floor Finish

Availability: Distributor is Swish Maintenance 1-800-509-3563

www.swishclean.com. Retail store in Oakville at Dundas and Winston Churchill Blvd. 4 litre sizes, free shipping on minimum order \$250 or \$25 shipping for orders under \$250.

Caeran

Kitchener, Ontario 1-800-563-0951
www.CAERAN.com

Contact person: Lisa Ryder 905-0341 healthathome@sympatico.ca

This company uses local representatives to advise about cleaning products, selling and delivering them directly to the customer. Some are scented.

Hand Dishwashing Liquid
Automatic Dishwasher Powder
Wood Works
Mirror Magic
All Purpose Cleaner
Essential Cleaner
Bathroom Cleaner
Rug and Upholstery Shampoo
Wonder Scrub

Availability: Order directly from Lisa Ryder. Price List in attached documents.

SUGGESTIONS FOR REPLACEMENT OF CURRENT PRODUCTS

Begin by eliminating the most toxic cleaners. Replace other products either by discarding as hazardous waste or using them up and replacing with a substitute from the above list. Evaluate the need for each product, especially for stripping and waxing floors, and how each cleaning job might be simplified. Use the minimum required to clean and protect surfaces. Ordering will be easier if limited to two or three suppliers. The situation is changing rapidly as more green products are introduced and you may eventually be able to order from a single supplier, perhaps Eco Mist or Nature Clean, which have a large variety of products.

“We cannot do everything, and there is a sense of liberation in realizing that. This enables us to do something It may be incomplete, but it is a beginning, a step along the way, and an opportunity for the Lord’s grace to enter and do the rest.”

- Prayer by Bishop Oscar Romero