

ENVIROFOCUS

Newsletter of the Environmental Protection Department

Issue #16 - December 2015



FROM THE DIRECTOR

In March 1971, the Government of Barbados established the Public Health Engineering Unit of the Ministry of Health and Welfare as a means to preserve the environment. At that time, the Unit ensured that, among other things, wastewater was disposed appropriately, in keeping with the existing policies and regulations, to minimize groundwater contamination. This Unit eventually evolved into the Environmental Protection Department (EPD) as its responsibilities expanded.

In spite of the name changes and expanded responsibilities the mission of the Department remained unchanged: to promote sustainable environmental practices through control, regulation and enforcement. The EPD strives to ensure that future generations inherit an environment that is healthy, productive and enjoyable.

However, there have been challenges. One challenge is the absence of an adequate legislative framework to address various aspects of environmental management such as ambient air quality and wastewater reuse. This in turn affects the Department's ability to effectively

respond to these issues. Another challenge is the ability of the limited human, financial and technical resources of the Department to address emerging environmental issues such as environmental persistent pharmaceuticals, endocrine disrupting chemicals and chemicals in products.

Nonetheless, the Department endeavours to achieve its mission by:

- renewing its zeal to tackle the issues confronting our environment;
- fostering new partnerships and strengthening existing ones;
- conducting sound environmental research for decision making; and
- engaging stakeholders on critical issues.

The Department will continue in its efforts to build on these key elements to ensure that Barbados' environment remains healthy, productive and enjoyable.

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SECURING OUR WORKPLACES

Why is it important to take time and effort to ensure that adequate procedures are in place to manage chemicals in your workplace?

As you ponder this question, consider the situation below.

While trying to unblock a drain, a worker poured concentrated acid down the drain but it did not achieve the desired results. He decided to use caustic soda next, and also poured the caustic soda down the drain. There was a violent chemical reaction which spewed the resulting chemical mixture into his face. He suffered



facial burns, temporary loss of eyesight and required hospitalization. He was not wearing protective clothing or a face shield.

Sadly, he did not understand the nature of the chemicals that he was using and the danger that he was exposing himself to. One of the contributing factors in that accident was that the caustic soda was repackaged into a new container which did not carry adequate labelling that would have provided information on the proper use of the chemical.

Unfortunately, this is not a unique incident. Every year,

the Labour Department receives, on average, 25 reports of accidents that are caused by exposure to hazardous substances.

To reduce this worrying statistic, the Labour Department in collaboration with the Environmental Protection Department (EPD) hosted a half-day seminar to highlight chemical management issues in Barbados. The seminar took place on Thursday, March 19th, 2015 at the headquarters of the Ministry of Labour, Social Security and Human Resource Development.

It brought together 24 representatives from the industrial and retail sectors as a first step towards improving the way that chemicals are managed in Barbados. Discussions focused on the obligations of businesses under the Safety and Health at Work Act, communicating the hazards of chemicals using the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and the disposal of chemical waste.

During the opening ceremony, Ms. Ingrid Lavine, acting Deputy Director of the EPD, encouraged the participants to put into practice what they learnt and, in doing so, protect themselves, their co-workers and the environment from the potential negative impacts of chemicals.

For further information on occupational safety and health, the public can contact the Labour Department at 310-1500. Information on the GHS and the disposal of chemical waste can be obtained from the Environmental Protection Department, via telephone, at 310-3600.



CHANGING YOUR OIL?

There are thousands of cars on Barbados' roads on any given day, and all of them require oil to function efficiently or at least to function at all. While all car owners know that their vehicles require oil many of them do not know what happens to this substance after the mechanic drains it from the engine. At that time the oil is considered used and looks very different from when it was first poured into the engine.

Oil is primarily an engine lubricant and over time it becomes dirty as it picks up particles from engine wear and tear. Furthermore, petroleum based oils contain a variety of organic compounds and contaminants inherent in the crude oil from which they are distilled. Oil is therefore a hazardous substance and it can damage the skin and is poisonous if ingested. Some of its constituents are considered carcinogenic and its effect on the environment is also a negative one: it kills vegetation and is poisonous to animals. A major area of concern is the contamination of potable water supplies and the marine environment.

So what should you do as a responsible consumer?

If you change your own oil do not throw it into a storm water drain or gutter. Store it in a labelled container with a secure cover until you can have it safely disposed of.

Look around the area where your car is serviced and see how used oil is stored. Is it stored in a designated container and in such a manner that spillage is unlikely and spills can be contained? If not, advise your mechanic or garage to contact the Environmental Protection Department or contact us yourself.





2015 INTERNSHIP PROGRAMME

Each year the Environmental Protection Department strives to provide meaningful work experience for young people who have an interest in environmental monitoring and control. This is achieved through the Department's annual internship programme, which caters to:

- final year students in the Environmental Science Programme at the Barbados Community College; and
- students from secondary and other tertiary institutions.

This year the Department was pleased to host Shyheim Pinder, Sheridan Greaves, Charissa Mangra, Danielle Grannum, Jaye Thompson, Natalie Jackson, and Terry Jordan.

The interns were exposed to the various functions of the Department, undertook projects and accompanied the officers on their daily duties. From all reports, they enjoyed the experience.

Terry's Experience

My time at the Environmental Protection Department (EPD) was interesting and enjoyable. Hearing the words environmental protection, I instantly thought EPD was involved with protecting animals such as turtles and rare birds. I finally have a better understanding of EPD.

I got the opportunity to go out with Neil, Tonya and some of the other interns to visit landfills and recycling companies, which actually got me to start my own little recycling system at home. Hopefully, it doesn't get out of control and EPD turns up at my house because that would be embarrassing. I also learned that EPD does sampling of both marine and waste water; my animal assumption was way off.

Being in the administrative section inputting data was a bit hard on my fingers, work isn't always all fun and games. However, doing that made me feel like I was one of the permanent staff and I enjoyed that feeling.

Allison Reeves, my supervisor was friendly towards me and she also allowed me to do work on my own which made me feel trustworthy; that made my work experience nice. Glen, one of my workmates had a funny personality and his random jokes got me through each day with a bit of laughter. Mr. Deane treated me as though I was working there for a long time, I never felt out of place and just like Allison, he trusted me to get my share of work done.

Would I recommend an EPD work experience for anyone? Indeed.

At EPD you are treated as one of them and you get to learn a lot of things you may not have known. I would gladly work at EPD again. The experience was a nice and enjoyable one and I am truly grateful that I got the opportunity to work with such wonderful people.



IN THEIR

Nine weeks ago, I would have been like any ordinary person. A person who knew nothing about the environment and the challenges it faces. However, that all changed when I acquired an internship at the Environmental Protection Department (EPD). This internship has changed my perspective, understanding, knowledge and appreciation for the environment I live in.

It has opened my eyes to the beauty of the world and everything it has to offer. On the other hand, I have also been educated on the many challenges facing the environment as a result of our anthropogenic activities. This was achieved through many field trip visits to various places on the island, which included going water sampling, air sampling, visiting derelict sites and many recycling facilities. It was here where I truly gained an appreciation for the service recycling facilities provided as they helped to reduce the impact of waste on our fragile environment.

Additionally, it must be duly noted that the officers of EPD play an extremely important role in safe guarding both our natural and built environment. The service they provide, benefits the environment and the people of Barbados. As a result, it was therefore my greatest pleasure to be working alongside people who have both a passion for the environment and a passion to ensure its sustainability.

I am truly thankful for my experience here at EPD, and everyone in each section, including Allison Reeves and Philip Pile. I am also thankful to my fellow interns, Charissa Mangra and Jaye Thompson who made the experience one to remember.

~Danielle Grannum

My internship with the Environmental Protection Department started on June 15th, 2015. When I started working the first thing I noticed was how friendly everyone was. All of the members of the staff created a very welcoming environment for me. Everyone was willing to help each other out in order to get things done.

While working with the EPD, I was given the opportunity to gain knowledge and experience within all of the sections such as Building Development Control, Marine Pollution Control, Water Quality, Air Quality and Noise, Derelict Buildings and Vehicles and Solid Waste and Hazardous Materials. Before any task or field trip commenced, the officers explained the background and purpose for each one. This way, I got to learn more about the work of the EPD as well as gain valuable working experience and knowledge.

Working as an intern for EPD also gave me a great sense of responsibility. I was assigned a number of data-sensitive projects and I was made aware of the importance of these assignments and therefore made sure that I completed them as efficiently as possible. Being given such responsibilities and carrying them out competently awarded me a sense of confidence and pride within myself.

Overall, I would consider my experience with the EPD to be a great one. I learned many new things and was left with an even stronger environmental awareness, excellent writing and computer skills and the ability to find innovative solutions. This is definitely something that will assist me in not only fulfilling my dreams of becoming an Environmental Lawyer but also filling the national void of the dearth of suitably qualified environmentalists and environmental lawyers.

~Charissa Mangra



Charissa Mangra Danielle Grannum

WORDS

The Environmental Protection Department (EPD) is a regulatory agency responsible for environmental monitoring and protection. Despite its name, I was still largely unsure about the operations at the department. Of course, there is information out there regarding the operations of the EPD but I could not relate to it because I'd never seen officers at the department in action.

My first day at the EPD was one which set the tone for the whole internship programme. As an intern, I received a very warm welcome and I was introduced to all of the members of EPD's team. That full introduction allowed me to settle quickly and to communicate with staff members easily.

I liked how I was allowed to familiarize myself with the material needed to help coordinate my project on Persistent Organic Pollutants (POPs) and their unintentional release from incinerator operations. My supervisors guided me and allowed me to do majority of the work. This hands on approach to the project allowed me to understand the way that things are done in the professional arena. I am now able to transition seamlessly between the academic arena and that of work. Seeing that I am young, this is a key skill; a skill that I developed at the EPD.

Overall, the EPD experience was a very enjoyable one. The environment allowed for seamless entry into the world of work and allowed to see the applicability of what I learnt at school. Additionally, I was able to utilize and build on my knowledge base.

~Jaye Thompson



Natalie Jackson Jaye Thompson

This internship was an eye opener for a dreamer like me, grounding me in the reality of what it means to truly have an 'adult' job. Although it wasn't endless days of exploring outside, the experience was truly a learning one as I worked on the project I had been assigned. I got to see places and learn of things that occurred in the island that I had no idea existed before and picked up a few tips and tricks along the way to make write ups and mailing so much easier.

The staff was friendly and very helpful. They took the time and care to help me with my tasks and answered any questions I had.

I enjoyed my internship at the Environmental Protection Department. It is an experience I would recommend to others looking to learn in a nurturing environment. It is a department I wouldn't mind interning with again or maybe even working full time in the future.

~Natalie Jackson

A DAY IN THE LIFE

I am Christopher Layne.

May 20th, 2014 was my first day of work at the Environmental Protection Department as a Building Development Officer in the Building Development Section. Since joining the section, one of my main duties has been reviewing applications for commercial and residential buildings.

Reviewing residential applications involves examining the plans to ensure that:

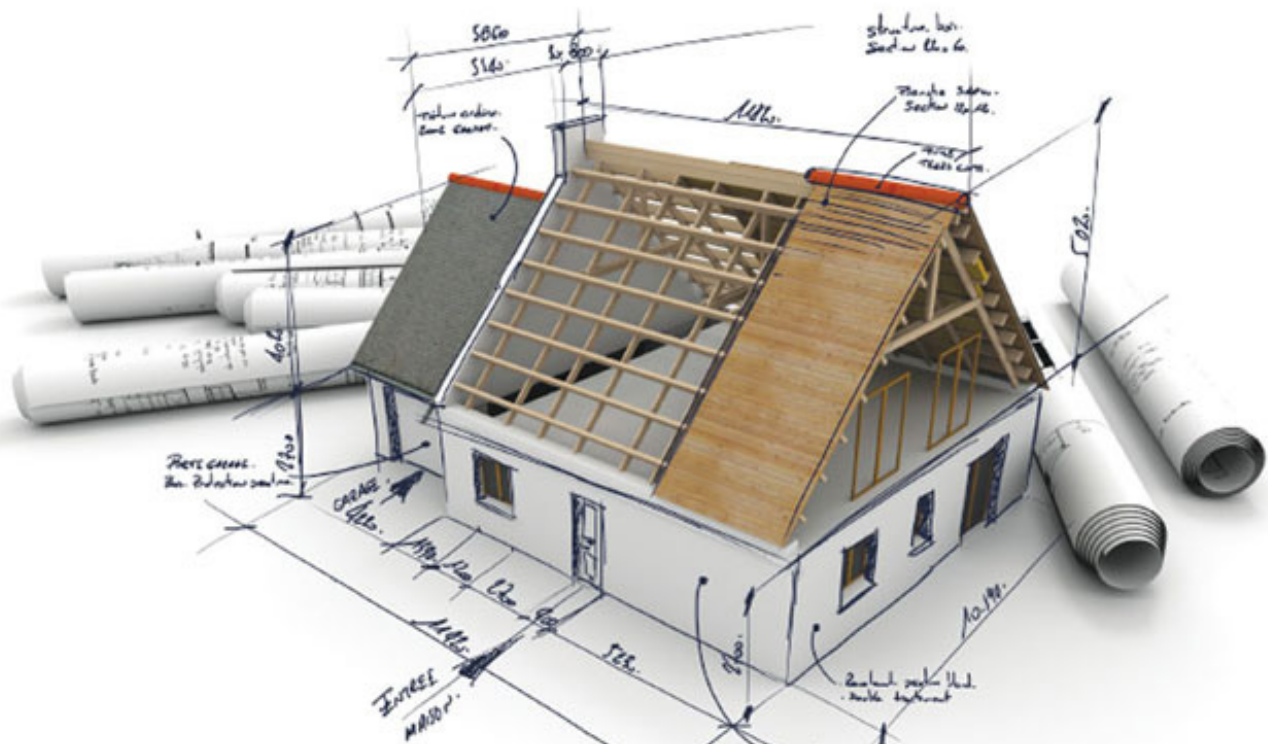
- all habitable rooms and sanitary conveniences (bathrooms) are adequately ventilated;
- waste water is disposed according to the ground water protection zone where the residence will be located;
- the elevations shown correspond to the floor plans; and
- the location map is to scale and accurate.

After the initial process of reviewing the application,

a site visit is done to confirm the site's location, the condition of the site and its surroundings. After conducting site visits, a report is written and a recommendation is made either to approve or refuse the application. If the particular application has an issue, correspondence is sent to both the applicant and agent requesting revised plans to correct the issue.

The Department has taught me the importance of the need for proper ventilation and proper waste disposal in order to safeguard the health of building occupants and Barbados' groundwater resources. With respect to the commercial applications, I have also learned the importance of having the correct infrastructure for commercial activities such as kitchens, workshops, offices and nursing homes and day nurseries; which serves to minimise the risk of any health hazards.

Each day I learn more about the building development control process in Barbados. Not only does this help me to process your plans more efficiently; it also helps me to guide you through the building application process.



STOP IDLING!

It is commonplace to walk down any street in Barbados and hear the idling engines of buses, vans and delivery trucks. We have become so accustomed to the smell of the exhaust that we don't even think of the danger lurking there. Most Barbadians don't even know that the International Agency for Research on Cancer, which is part of the World Health Organization, recently classified diesel engine exhaust as carcinogenic to humans, based on sufficient evidence that exposure is associated with an increased risk for lung cancer.

Many people are exposed to diesel exhaust in everyday life, whether at work or going about their daily activities. This exposure mostly comes from motor vehicle exhausts but can also come from other diesel engines, including boats and power generators. People who work in jobs

where they would be exposed to a lot of diesel exhaust are more likely to be affected. However, you may live next door to a source you haven't considered, like the delivery trucks that have their engines idling right outside your window as their drivers make deliveries to the corner store.

We all breathe the same air. This is why it is important to reduce the amount of unnecessary exhaust being pumped into the air. Stop the idling so that we can all breathe easy!

Further information on the study of diesel exhaust can be found using the reference below:

International Agency for research on Cancer. (2012). IARC Diesel Engine Exhaust Carcinogenic Press release No 213. Lyon: World Health Organisation.



I DON'T WANT TO PROTECT
THE ENVIRONMENT

I WANT TO CREATE A
WORLD WHERE THE
ENVIRONMENT DOESN'T
NEED PROTECTING



EnviroQuotes

“There's so much pollution in the air now that if it weren't for our lungs there'd be no place to put it all.” ~**Robert Orben**

“We won't have a society if we destroy the environment.” ~ **Margaret Mead**



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