

Disposal of Waste Cooking Oil of Restaurants and Eateries: A Potential Hazard to the Environment

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Abstract— *The study delved on the disposal practices of restaurants and eateries in Cabanatuan City, Philippines as regard the disposal of cooking oil and grease residues emanating from its operation. It is believed that this practice of flushing cooking oil and other liquid wastes through the city's drainage system can clog the canals. It was further assumed that these establishments neither segregate nor use grease traps for their liquid waste management. Data were gathered thru convenience sampling, non-structured interview, and observation. Findings revealed that these food operators neither are aware on the proper disposal of liquid waste nor knowledgeable on its right disposal. They are not also aware of the harms it may bring to the environment as a consequence of these acts.*

Keywords— *clogged canals, cooking oil and grease disposal, waste management, water pollution.*

I. INTRODUCTION

Stink, dark and polluted are the words you will hear whenever a person or group passes by to the open sewerage near the eateries. Disposal practices of used cooking oil of eateries down to the drainage may harm not only the environment but also the community. Waste cooking oil of eateries can pollute the sewerage system. The restaurants' and eateries' cooking oil and home use differ in the quality of oil and the quantity.

In the Philippines, kitchen sink pipes of residential houses, and even in restaurants and eateries, are directly flushed into the community's open canal. People are unaware that used oil or grease when cooled solidifies can clog drainages, and eventually cause flooding during heavy rains. The Metropolitan Manila Development Authority

discovered that used grease and oil are the main reason why the drainage clogged and causing a flood on Tomas Morato in Quezon City (Fabunan and Zurbano, manilastandard.net, 2015). Accordingly, this was due to build-up of grease coming from the kitchen of some restaurants in the area.

While people are engaged in the practice of dumping their used cooking oil or grease openly in secondary and main canals, this ends up in natural water bodies that can harm the aquatic and marine life. This means environmental degradation.

The researchers of this study find relevance in conducting a survey on the current situation on the waste management practices of restaurants and eateries in order to address this malpractice.

II. STATEMENT OF THE PROBLEM

The study sought to answer the following:

1. Describe the awareness of restaurants and eateries as regard the proper disposal of used cooking oil and its residues.
2. Describe the disposal practices of these establishments in the disposal of used cooking oil and its residues.
3. Describe the respondents' awareness as to its effects to the environment.

III. RESEARCH METHODOLOGY

This research study employed the descriptive research design. It employed the ten (10) restaurant and eateries selected and suspected to be disposing off improperly its solid and liquid wastes. Unstructured interview and observation were used the data gathering. The latter technique was utilized to validate the claims of the restaurants and eateries by observing the main canals and its tributaries where their kitchen sink drain was connected. For purposes of clarity, two kinds of oil were used in this study: used cooking oil and the other was the grease residue from plates.

IV. RESULTS AND DISCUSSION

This section answered the question posed in the statement of the problem.

Table 1. Awareness of restaurants and eateries as regard the disposal of cooking oil and its residues

Q1: Are you aware in the disposal of cooking oil and its residues?			
Not Aware		Aware	
Frequency	Percentage	Frequency	Percentage
8	80%	2	20%

Note that 80% of them are not aware of the proper disposal of used cooking. Only 20% are aware. Further interview revealed that those who answered they were aware did not disclose how they dispose off the used cooking oil. One respondent claimed that such were re-used for their other frying needs. The other one was hesitant to answer the query for fear their establishment would be reported to government authority.

Table 2. Disposal practices of restaurants and eateries as regard the disposal of cooking oil and its residues

Q2: Disposal practices of restaurants and eateries					
Directly into the kitchen sink		Being reused for frying		Put into a bin	
Frequency	Percent age	Frequency	Percent age	Frequency	Percent age
8	80%	10	100%	2	20%

Multiple responses

Eighty percent (80%) of these restaurants and eateries dispose off the used cooking oil and its residues directly into the kitchen sink.

Ten (10) or all of them reuse the oil for their other frying needs, but segregated those specifically for meat and fish use.

Only two (2) of them put the used cooking oil (no longer desirable or fit for frying) in a container, however, she did not elaborate where she places or dispose off the oil container.

It can be deduced from the data their practices in the disposal of liquid waste was far from being ideal, except for the two respondents who segregated the oil. As to how they do next was not disclosed.

Table 3. Awareness of respondents to the threats it poses to the environment

Q3:					
Not aware		Somewhat aware		Aware	
Frequency	Percent age	Frequency	Percent age	Frequency	Percent age
8	80%	1	10%	1	10%

Data show that respondents are not aware of the hazards to the environment the practice of throwing used cooking oil and its residues directly into the sewer. Only one (1) somewhat agreed of its threats it might clog the canals, while one (1) was aware, however may not be fully aware of the harms it may do to nature. It further shows that they are ill-informed of the risks this may bring.

V. CONCLUSION

As to awareness of restaurants and eateries in the disposal of used cooking oil and its residues. Majority of them are not aware on how to dispose off properly the liquid wastes.

As to the current practices as regard the disposal of used cooking oil and its residues. Most of them flushed the used cooking oil and residues straight to the sewer.

As to the awareness as regard the threats it may do to the environment. Most of them are not aware of the consequences it may bring to the habitat and the people in the community.

VI. RECOMMENDATION

1. For these establishments to follow the Philippine Law re: Republic Act No. 9003 (otherwise known as the Ecological Solid Waste Management Act of 2000) and Republic Act No. 9275 ("Philippine Clean Water Act of 2004").

2. For the Local Government Units (LGU) to ensure that Republic Acts. 9003 & 9275 are properly implemented and strictly followed by the food operators.

3. That periodic visitation be done by LGU and Department of Environment and Natural Resources as to adherence to law of the concerned, and penalize those disobedient to this Act.

4. The LGU may require these establishments an orientation seminar, meeting, or any other means to educate these operators and become part of the requisites prior to issuance of the yearly business permits, and/or revocation of license if the above laws are violated.

5. The LGU Engineering Office may require these operators a detailed sewer plan in conformity with the applicable laws.

6. For food operators to install grease traps in their kitchen lavatories.

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