



**OFFICE OF ENVIRONMENT & EMERGENCY MANAGEMENT**

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November 20, 2013

MEMORANDUM

TO: Acting Director  
FROM: Program Manager/RAC Instructor  
SUBJECT: Trip Report

Transmitted for your information is a summary of trip report myself and Bertoldo Esteban to Samoa to attend the Symposium on Ozone2Climate Technology and Train the Trainer from November 11-14, 2013.

Should you need more details, please let us know.

Thank you,

  
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Tilson T. Kephass

/S/ \_\_\_\_\_

Bertoldo Esteban

Cc: Assistant Director,

## Summary

The Symposium on Ozone2Climate Technologies and Train the Trainers in Samoa from 11-14 November 2013 brought together a quite a number of technicians, ozone officers and other representatives from other agencies i.e, South Pacific Community and International Union on Conservation of Nature and manufactures of appliances and equipment in the Refrigeration and Air Conditioning Sector. Most of these manufacturers are from Australian and New Zealand industries attended the symposium to showcase their products.

Among the participants, the Island of Niue was not represented in this symposium. On behalf of FSM delegation, Mr. Bert Esteban – RAC instructor at the COM-FSM/Pohnpei Campus who is sponsored by UNEP and I attended the symposium as well as the Train the Trainer Meeting during the dates mentioned above. We have met with all the manufactures attended the symposium to learn more on their products as well as to explore its applicability in the Federated States of Micronesia's environment.

With knowing the proposal put forward by FSM Government on HFC phase-down, we must start demonstrate that our ground activities are indeed complement with what we have been lobbying at the Montreal Protocol during Open-Ended Working Group Meeting (OEWG) as well as the Meeting of the Parties (MOP). The initiatives on putting forward a proposal on HFC phase-down which I believe that the proposal is indeed taking into account the affects of global warming gases in the SIDS region. Although the proposal is an ambitious move, we must however on the other hand demonstrate our ability on the ground that FSM could indeed phase-down the HFC refrigerants.

While FSM just recently shifted into utilizing HFCs in its refrigeration and air conditioning sector, we must explore all possible ways to shift again by phasing down the heavily used HFCs in the FSM. Our ODS data collection as of August 2013 indicated that FSM is still importing HFCs which accounted for sixty eight percent while currently phasing out HCFC is tapering off at 32 percent.

This translates to a picture that FSM RAC sector is heavily importing and using the HFCs and could not at this stage completely transitioned into natural gases that have zero ozone depleting potential (ODP) and zero or low global warming potential (GWP). Since the leap frog from HCFC to hydrocarbons is not feasible at this moment, FSM is still able to transition into these hydrocarbons with a slower pace. With the availability of alternatives that have zero ODP and zero or low GWP, Bert and I have decided to explore in depth the hydrocarbon products which are known to be one of the best alternatives.

There are already numerous countries already leap frog into the hydrocarbon. One of the smallest islands who leaped frog into the hydrocarbon is Maldives. Maldives, as we all know its tourism industry demands highly on refrigeration and air conditioning. Nauru on the other hand already has zero imports of HCFC and so as Niue. While these countries already phase out their HCFCs, they are now start exploring the use of hydrocarbon but at a smaller scale. These cases demonstrated the possibility of moving into the hydrocarbon as the final goal.

Although there is no phase-out schedule developed for HFCs yet, it is eminent that the world is going to phase out these global warming gases sooner or later and eventually moving into the natural gases.

The natural gas supplier also attended the Symposium. Mr. John Clark representing the HyChill Industry. He has been in the BBC advocating the solutions brought by hydrocarbon. We have discussed with Mr. Clark on the way forward for FSM to start exploring the hydrocarbons. Mr. Clark is willing to connect us to the GIZ organization that could provide technical training on hydrocarbon while HyChill company will provide the hydrocarbon refrigerants for the training. This step seemed to be the starting point as we are waiting for Mr. Clark to establish contact with GIS on this matter.

We also met up with another very important company that is dealing with the destruction of contaminated ODSs. Mr. Greg Groppenbacher is the director of Refrigerant Reclaim in Australia. Mr. Groppenbacher on his presentation as well as his interaction amongst the Pacific Island participants shows his ambitions and willingness to assist the Pacific Island Countries for destruction of contaminated refrigerants. As of now, there is no plan yet as to how the contaminated refrigerants in the Pacific Island Countries will be collected and shipped to a destruction facility, but Reclaim Australia is one of the potential candidates for this type of activity.

In line with the destruction of contaminated ODSs, SPREP has been handling the e-wastes and currently in the process of availing containers for the Pacific Islands for e-waste materials, this would be another avenue worth exploring for the possibility of allowing the contaminated refrigerants to be collected along with the e-waste from each PICs for the destruction process.

Another equally important agency that dealing with the activities that marrying into the ODSs undertakings is the Economic Development Division under SPC which oversees the energy efficiency on appliances coming into the Pacific Region. Mrs. Makareta Sautauraga also presented a useful, informative and comprehensive presentation that highlighted the importance of energy efficiency in all appliances and equipment. As the ozone activity is looking at both ODP and GWP, this avenue also provides options to

further explore the energy efficiency in the appliances like refrigerators, freezers, air conditioning, etc. used in the RAC Sector.

While energy labeling is also part of the energy efficiency activities, future endeavors should also looking at the possibilities of using three different ratings in one label that would address the ODP, GWP and Energy Ratings.

Fortunately, we have met up with Mr. John Bowen who used to be the RAC instructor during the CFC phase out era. Mr. Bowen is very helpful in providing Bert with some of the revised training materials he used during the RAC training. Along with these training materials, Bert also gotten some training materials from Mr. Michael Moller who is also an instructor at the Asia Pacific Technical College. With all these training materials, I am sure Mr. Bert will utilize them to improve the teaching quality at the College of Micronesia-Pohnpei Campus.

In conclusion, this trip is very important as it enlighten us on a wide spectrum of views and ideas on how to move forward and marrying together different activities that together protect the environment and the people. At the same time, the showcasing of products proves that the industry people are also part of the entire undertakings and we must all work to together to protect the environment. The products are not just products but it is also serves as solutions to current problems that allow us to consider several options from the manufacturer.

While attending the symposium and the Train the Trainers, I am happy that FSM was selected among the participants to facilitate some of the sessions.

### **Recommendation:**

- FSM must start exploring the avenue of hydrocarbon since HFC proposal is advocating a phase-down of HFC. Since the world will be eventually moving into the hydrocarbon refrigerants, we must also be proactively seeking ways to complement our proposal. All natural gases that are flammable and toxic are the alternatives for all ODPs and GWPs. Although these natural gases are regarded as flammable and toxic, that does not mean it cannot be used. We require proper and quality training for our technicians who will be servicing these units. Continues and refreshing trainings are some of the keys to address this.
- OEEM should be the guinea pigs in this transitioning to hydrocarbons approach. All the air conditioning in this office should be retrofitted to use hydrocarbon so that OEEM can set the examples for other offices and eventually throughout the entire residential and businesses community that hydrocarbons can be used widely in the FSM.

- FSM must seek support from GIZ or any other entities for technical trainings on hydrocarbons.
- While FSM is still on the phasing out process of HCFCs, it should seriously look at different angles to back up the HFC phase down proposal under the Montreal Protocol.
- Energy Efficiency Policy should be strengthened and tying into the ODSs due its relevancy. Ministerial Meeting on Energy should also address the ODS undertakings in the FSM in relation to the energy efficiency. Since this already proven during the technician training, FSM should be proactive in educating its constituents not only to understand the energy labeling but developing a sense of good practice in buying energy efficient appliances.
- FSM must start working on its banning of HCFC based equipment and appliances.
- FSM must start working to increase its taxation on HCFCs and moderately reduce the taxation on HFCs and hydrocarbons as well.
- FSM must continue the RAC training for all chartered RAC Association in each State.