

Unlabelled, expired and wasted Chemicals : Obstacles and Treatment

The 5th Virtual International Safety and Security
Conference

21 – 23 December 2020

Authers

- **Dr. Mohammed Al-Assadi**
- **Prof.Dr. Hadi S. Al-Lami**
- **Prof.Dr. Abdulwahid A. Al-Hajjaj**

- **University of Basrah**

Wastes of 25 years !!

- **Unlabelled, expired and wasted chemicals were found in a messy condition in one of the far behind 's rooms of department of Chemistry/ College of Science/ University of Basra.**
- **The massive pile of chemicals were in unpleasant condition; broken reagent bottles and spillages covered all over the place.**

Messy Room



Chemicals Store

- **The first step taken was building of a 5 x 5 m² store , constructed of nonflammable panel. The cost price was 3,750,000 ID.**

Chemicals Waste Store



CBRN /Civil Defence

- **A grateful help and support were provided by the CBRN team/ Civil defence- Basra province. Thankfully, they quickly responded to the request submitted by the Dean office / college of Science. Fifteen CBRN officers were involved in this task, as they conducted separation of undamaged containers, collected the spillages, thereafter, they transported the retrievable stuff into the recently built chemical wastes store.**

CBRN – Team of Response



CBRN - Respondents



CBRN - Respondents



CBRN - Respondents

- **Approximately, 3000 different chemical reagent bottles have been shelved considering the physical state of each chemical.**

CBRN - Respondents



Grateful Effort



Question

- **How can we get rid of this stuff?**

Part Two

- **The CBRN-SS central committee /university of Basra has responded to the request submitted by department of chemical engineering / college of engineering-university of Basra to remove a lot of unlabelled, expired and chemical wastes.**

Another Task



Chemical Wastes/ Chem.Engineering



CBRN Responds

- **The task was conducted by four members of the central committee backed by four employee .**
- **The spread over chemicals were collected and packed up with awareness and accurate personal protection considering the international safety rules.**

Package up



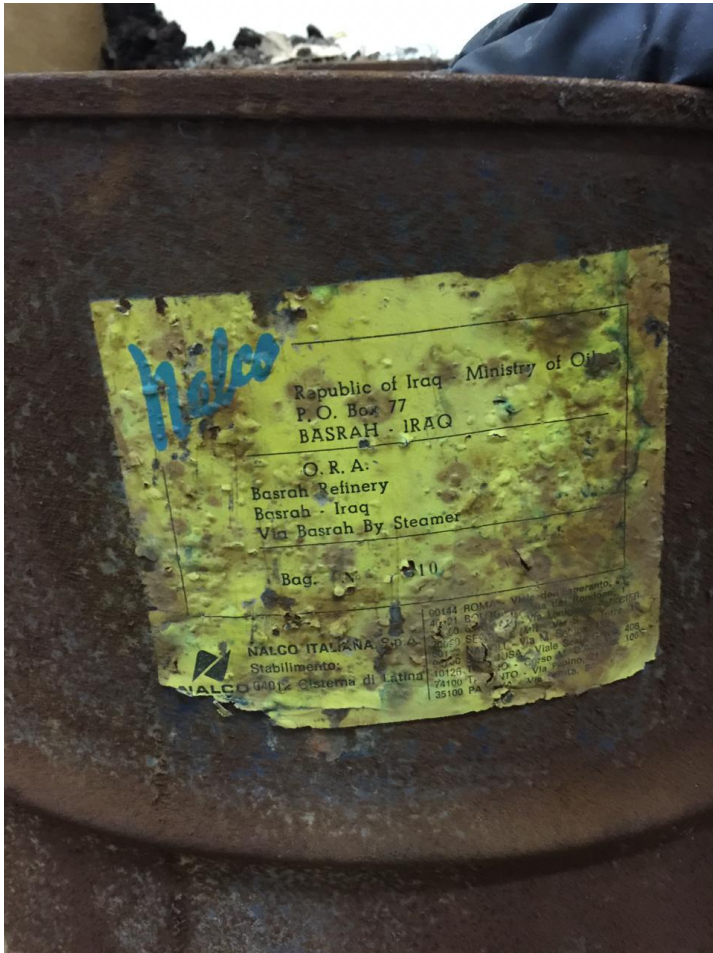
Package up



Some Properties

- The following data describes some properties of the collective materials.
- - Expired disodium hydrogenphosphate 170Kg.
- - Unknown white powder 100Kg.
- - Unknown brown powder
- - Unknown poison gas 5 L

Unknown Stuff



Transportation

- **The packages were transported safely under the supervision of three senior members of the CBRN – SS central committee to the “chemical waste store” in department of Chemistry/College of Science . The international safety and security rules were considered amid the transportation process.**

Transportation process



New home

- **In their new abode waiting for last destiny .**
- **There are a lot of waste, unknown and expired chemicals need to be treated in a reasonable scientific process.**

Waiting for final process



Finally

- **THANKS for LISTENING**