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ECHA
Mr Geert DANCET
Executive Director

Bordeaux, the 14 September 2011

Dear Sir,

On 15th June, ECHA published the 3rd recommendation to include in priority the components of Chromium VI in the annex XIV of REACH. Our company is particularly concerned by chromium trioxide, sodium dichromate, potassium dichromate and trichloréthylène.

Sabena technics is a leading independent provider of maintenance services to civil and military aircraft operators. The group operates under the brands Sabena technics, Sabena technics training and Barfield. The group employs over 3,000 persons across 17 sites worldwide and its services are organized into five major activities: Airframe services, Component services, Integrated services, Military services and Training services, based on the basic principle of meeting its customers' requirements. For the use of Airframe and Components services, there are two surface treatment workshops in the company.

We need chromium trioxyde for chromium plating, chromate conversion, sulfo-chromium stripping and chromic acid anodizong. All theses treatments are for the landing gear and the new pieces except for the chromium plating which is just for the landing gear.

We need sodium dichormate for the passivation of cadmium of landing gear and potassium dichromate for the sealing of new pieces.

Trichlorethylen is used for degreasing and dewaxing of landing gears. It is used in an automated and enclosed system.

We join to UITS & FIM[1] to demand:

1. THE MODIFICATION OF THE PROPOSED DATES

We demand this modification in consideration of these arguments:

1.1 **The particular economic situation of the supply chain ofthese substances**. At present no European supplier of these substances has taken the decision to set up an authorization file. Some

[1] French association of surface treatementsactivities (Union des industries du traitement de surfaces) and of mechanical industries (Fédération des industries mécaniques)

suppliers will contract a study on the feasibility, but results will be presented only in 1st trimester 2012. Moreover, this study will not be completed for the whole authorization file.
Our own supplier isn't able to tell us if he's going to take part in this feasibility study. During this wait, we are resourceless: as downstream users we are not prepared to gather technical, administrative and financial means for completing an authorization file according to the ECHA's dates

1.2 No consumers exposed. With the use of hard chromium plating and plastics stripping, chromium trioxideis totally used up during the surface treatment process, and treated parts do not contain this substance, and no other component of Chromium VI. They contain metal chromium which doesn't present any risk for Health and Environment.

With the use of chromate conversion or chromic acid anodizing, it remains less than 0.1% of weight of Chromium VI on the pieces.

1.3 Very occasionally/ few employee exposed. The number of exposed employees is very limited, and in constant reduction (on average 4 employees for a medium size company when it is not automatized system and 1 employee when it is automatized system). For several years, we can see the reduction of workers exposition at Chromium VI as we can see the reduction of European consumptions (32000t chromic acid in 1997 even though 24000t consumed in 2003).

In accordance with technical progress realized, exposure of workers has been reduced by 3 during the 10 last years. This number takes in consideration:

- Plated surface have been multiplied by 2
- Quantity used divided by 30%

This is clearly observed by measures obtained in factory by official safety services.

1.4 R&D programs and qualifications running for certain surface treatment

For example:

- Chromium plating: the research program ECOCHROM shows that it is possible to realize chromium plating with trivalent chromium for low thickness deposit, but indicates that it remains to validate this solution with contractors and make industrial tools modifications, not valuable for high deposit.
- Anodic oxidation sulfotartric or another to replace OAC (Anodic oxidation chromic) that will be recommending in some cases. First industrial tests in subcontractors have begun in 2010. This solution cannot be totally set up until four years.

In consequence, we ask an application date of 30 months and a sunset date 18months later, at the latest.

2. EXEMPTION FOR AUTOMATED PROCESSES AND ENCLOSED SYSTEMSIN SURFACE TREATMENT.

When automated process is used in the factory, there is noworkers' exposition (except for the people who are in charge of baths' manufacturing and who are wearing protection equipment such as gloves, mask…).

This is also valid for enclosed systems.

We demand exemptions for automated processes and enclosed systems in surface treatment.

3. BETTER CONSIDERATION WITH TECHNICAL AND ECONOMICAL TECHNICS LIMITS OF SUBSTITUTES WHICH ARE MENTIONED IN THE ANNEX XV'S FILE.

Many European and international R&Dprograms have been conducted about CrVI substitution(e.g ECOCHROM, HCAT, JCAT…). However, for many applications, these programs didn't success: it is the case for hard chromium plating, sulfo-chromium pickling of plastics, cadmium and stainless steel conversion and magnesium treatment.

The file enclosed with the third recommendation of ECHA give the next feasible substitute without mentionning disadvantages and incompatibilities.

3.1 **Thermal spray and HVOF**: These technologies are not available for deposit <80 microns. Besides, the kind of deposit is limited to a part of pieces treated by only process: hard chromium plating. Thermal spray doesn't permit treating pieces which have complex size or geometry. Thermal spray is only adapted to unit pieces, not mass production.

3.2 **Vacuum coatings**: Vacuum coatings are realized in small size enclosure. The thickness of deposits can't exceed 5 microns. It is not possible using it when a corrosion protection is required. Necessary time to realize deposit forbidsvacuum coatings for mass production. Moreover, cost of the coatings is thrice more expensivethan a surface treatment realized by wet process such as chromium plating.

3.3 **Zinc based alternatives**: zinc coatings are cathodics, they dissolve themselves in order to protect pieces against corrosion. So, coating's thickness is very important. Chromium coatings are anodics. Coating isn't dissolve during the time, that assures a good durability of the piece.Zinc based alternatives haven't the same technical characteristics than coatings made with chromium six compounds (hardness, tirelessness, wear resistance, coefficient of friction…

3.4 **Nickel based alternatives** :It isn't serious to mention as substitutes, process involving CMR compound although classification is actually contested.

3.5 **Chromium III coating**: chromium deposit realized with trivalent chromium ispossible only for not technical deposit, with small thickness. It is impossible to obtain deposit with big thickness which achieves technical performance hard chromium plating. The three chromium bath's implementation is less very less easy than baths with chromium six. The deposit's cost is multiplied by 3.

3.6 **Part modification**: This alternative needs to replace material such as titanium, plastic, aluminum by steel which can be heat-treated. But we must remember that pieces must be the most lightest possible to answer industrial problem that is why this alternative isn't technically possible. Moreover heat-treatment causes variation on thepart's dimension which is incompatible with the final utilization's pieces.

3.7 **Nanotechnology** : No toxicologic data are available for these news technologies, and no technical studies which would said that nanotechnology can replace chromium six in the surface treatment.

It is very important to remember that all these alternatives do not concern all the applications obtained by chromium six compounds. Many applications are not mentioned in the ECHA's document established to put chromium six on authorization.It is the case for stripping of plastics, conversion of stainless or cadmium for what it doesn't exist alternative today.

4. BETTER CONSIDERATION OF THE EXISTING LEGAL AND REGULATORY FRAMEWORK REGARDING THE IMPACT ON WORKERS AND ON ENVIRONMENT.

Most of the installations using chromium trioxide are regulated by the european IED directive 2010/75/UE and apply the best available techniques. The BREF regarding Surface Treatment of Metals and Plastics

recommends ventilation, air extractors and indicates emission limit values in water and air. We consider this directive as the legal basis of exemptions possibilities.

5. CONCLUSION

In conclusion, we urge ECHA to consider our demands. If not, we fear that delocalization will be the only outcome, and this worst case scenario would represent for us.
Our company and our sub-contractors respect French legislation protecting workers (code du travail) and environment (code de l'environnement).
We can't understand European policies when they lead to reduce industrial activities and employments in EU, and when they lead to increase outsourcing in developing countries, where workers and environment are much less protected.