

# Work instruction

## Hazardous materials in the JSF programs

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This document is released by the FLG Configuration Management (CM) release process. Review, approval and change information can be obtained by the CM department.

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## REVISION STATUS

The latest revision of this document may be confirmed by viewing the Fokker Landing gear (FLG) website at: <http://www.fokkerlandinggear.com/Suppliers>

Questions regarding this document should be directed to the FLG procurement department.

Date	Issue	Definition / reason	Concerned: page / paragraph
03-06-2014	03	<ul style="list-style-type: none"> <li>• Changed to new FLG lay-out</li> <li>• Added TOC</li> <li>• Changed Scope</li> <li>• Improved seller obligation</li> <li>• Changed Table 1</li> <li>• Changed Table 2</li> </ul>	All Page 2 Page 3 Page 3 Page 4 Page 5

## SCOPE

Unit: Supplier's Quality Assurance (SQA)  
 Program: F-35 program, CTOL ADSD, CTOL, CV Arresting Gear and F-35 CDB (149A, 145A, 147B and 150 A part numbers)  
 Source: SPA-Q-30.2K, JSF contract procedure  
 NGC SSOW  
 Goodrich EPS

## PURPOSE OF THE WORK INSTRUCTION

This work instruction has been altered to meet the requirements of hazardous materials for all applicable JSF programs, as mentioned in the scope of this document, within FLG. In the applicable JSF programs some hazardous materials are banned (see annex 1) or restricted (see annex 2) from use. This work instruction informs you which products are banned and which products are restricted and therefore subject to review and approval by FLG!

## RESPONSIBILITY

Those materials defined in the table of annex 1 are banned from use in or required for operation, maintenance, storage, transportation or disposal of the equipment.

Use of the materials in the table of annex 2 in design, operation, repair, maintenance or disposal is highly restricted and subject to review and approval by FLG. Should any of the materials, mentioned in the table of annex 2, are contained in, generated by or required for operation, maintenance, storage, transport or disposal of the product as delivered to the Buyer than FLG needs to approved the use of that material. Please forward your request to the applicable FLG procurement department.

## DESCRIPTION OF THE WORK INSTRUCTION

### 1. Seller obligations

- The seller **will** identify any hazardous materials or environmental pollutants in the product delivered to FLG,
- The seller **will** identify all material changes contained in, generated by or required for operation, maintenance, storage, transport or disposal of the product as delivered to the Buyer. Materials that are banned or restricted are defined in the tables in annex 1 and 2 . The Seller shall thoroughly review all materials delivered in the final product, including adhesives and sealants, for the presence of banned/restricted materials.

**2. Definition of terms**

- **Will**  
Denotes an intended mandatory and contractual requirement. A “will” is synonymous with shall but does not require formal submittal of metrics or verification evidence.
- **CAS No.**  
Chemical Abstract Service number. Are unique numerical identifiers assigned by the Chemical Abstracts Service to every chemical described in the open scientific literature (currently including those described from at least 1957 through the present, including elements, isotopes, organic and inorganic compounds, ions, organometallics, metals, nonstructural materials (aka 'UVCB's'- i.e., materials of Unknown, Variable Composition, or Biological origin

**ABBREVIATION**

CTE	Critical To Engineering
CTM	Critical To Manufacturing
MPS	Manufacturing Planning Sheet

**ANNEX 1**

**Banned Materials**

Common Name	Chemical Abstract Service Number	Common Name	Chemical Abstract Service Number
Asbestos	1332-21-4	Amosite	12172-73-5
Actinolite	77536-66-4	Anthophyllite	77536-66-4
Chrysotile	12001-29-5	Crocidolite	12001-28-4
Tremolite	77536-68-6	2,4-Dichlorophenoxyacetic Acid (2,4-D)	94-75-7
2,4,5-Trichlorophenoxyacetic Acid (2,4,5-T)	93-76-5	Iron Carbonyl	13463-40-6
4,4'-Methylenedianiline(MDA)	101-77-9	Nickel Carbonyl	13463-39-3
Pentachlorophenol	87-86-5	Picric Acid	88-89-1
Polychlorinated biphenyls (PCBs)	1336-36-3	Tetrachloromethane	56-23-5
1,1,1-Trichloroethane (1,1,1-TCA)	71-55-6	Trichloroethylene (TCE)	79-01-6
Class I Ozone Depleting Compounds (ODCs) (1)			
Note: 1. Consists of fully halogenated chlorofluorocarbons (CFCs), halons, and methyl chloroform.			

ANNEX 2

Restricted Materials

Common Name	Chemical Abstract Service Number	Common Name	Chemical Abstract Service Number
Anhydrous Ammonia	7664-41-7	Benzene	71-43-2
Beryllium and Be Compounds (1)	7440-41-7	Cadmium and Cd Compounds (6)	7440-43-9
Chromium Compounds (2)	7440-47-3	Depleted Uranium	7440-61-1
Hydrazine	302-01-2	Inorganic Cyanide	57-12-5
Lead Compounds (3)	7439-92-1	Methyl ethyl ketone (MEK)	78-93-3
Mercury (atrit)	7439-97-6	Methanol	67-56-1
Methylene Chloride	75-09-2	Methyl isobutyl ketone (MIBK)	108-10-1
Nickel Compounds (2)	7440-02-0	Nitric Acid	7697-37-2
Phenol	108-95-2	Tetrachloroethylene (Perchloroethylene)	127-18-4
Toluene	108-88-3	Xylene	1330-20-7
o-xylene	95-47-6	m-Xylene	108-38-3
p-Xylene	106-42-3	Formaldehyde	50-00-0
70% Hydrofluoric Acid	7664-39-3	Sulfur Dioxide Gas	7446-09-5
Chlorine Gas	7782-50-5	Class II Ozone Depleting Compounds (ODCs) (4)	
Corrosive Materials (5)		Oxidizers (5)	
Explosive Materials (5)		Radioactive Materials (5)	
Flammable or Combustible Materials (5)		Toluene Diisocyanate	584-84-9

Notes:

1. Except in alloy form with less than 5% Beryllium.
2. Except in alloy form.
3. Except in solder.
4. Consists of all hydrochlorofluorocarbons (HCFCs). Restricted from delivery in a product or use in maintenance of a product.
5. Due to Department of Transportation Restrictions (use definitions in 49 CFR 173).

6: Allowed for PMC brace components. Prohibited on standard hardware