

PROJECT INFORMATION DOCUMENT (PID) CONCEPT STAGE

Report No.: PIDC22401

Project Name	Reduction and Phaseout of PFOS in Priority Sectors (P152959)
Region	EAST ASIA AND PACIFIC
Country	China
Sector(s)	Other industry (90%), Central government administration (10%)
Theme(s)	Pollution management and environmental health (60%), Environmental policies and institutions (20%), Other environment and natural resources management (20%)
Lending Instrument	Investment Project Financing
Project ID	P152959
GEF Focal Area	Persistent Organic Pollutants
Borrower(s)	PEOPLE'S REPUBLIC OF CHINA
Implementing Agency	Foreign Economic Cooperation Office of Ministry of Environment Protection
Environmental Category	A-Full Assessment
Date PID Prepared/ Updated	19-Mar-2015
Date PID Approved/ Disclosed	30-Jul-2015
Estimated Date of Appraisal Completion	16-Sep-2016
Estimated Date of Board Approval	22-Dec-2016
Concept Review Decision	Track II - The review did authorize the preparation to continue

I. Introduction and Context

Country Context

China has ratified the Stockholm Convention on Persistent Organic Pollutants (POPs) in 2004, for which a National Implementation Plan (NIP) was prepared in 2007. POPs are a group of chemical substances that persist in the environment, can be transported far from their sources and bio-accumulated through the food web, and can “lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and even diminished intelligence.” The Convention was amended in 2009 to include, among others, perfluorooctane sulfonic acid (PFOS) which is subject to phase-out. This amendment entered into force for China on March 26, 2014. The NIP is being updated to take into account strategies and action plans for the new chemicals. China will submit the updated NIP by March 2016.

Preliminary findings confirm that PFOS, among other chemicals included in 2009, is priority of China due to its production level and pervasive use of this chemical.

PFOS has been demonstrated to be ubiquitous, found in a wide range of environmental samples and in the blood of the general population in China. While the contamination recorded to date is lower than that expected to cause adverse effects – with the exception of hot-spots near industrial sites – the widespread aspect of PFOS contamination in China, and potential health effects, warrant early action to control the growth of the use and production of these compounds, in line with the global concerns as expressed through the Stockholm Convention.

Sectoral and Institutional Context

China has banned all uses that are not listed as “exempted” or “acceptable”. There are seven acceptable purposes and six specific exemptions that have been registered with the Secretariat of the Stockholm Convention by the Chinese Government. The acceptable purposes are: (i) photo-imaging; (ii) photo-resist and anti-reflective coatings for semi-conductors; (iii) etching agent for compound semi-conductors and ceramic filters; (iv) aviation hydraulic fluids; (v) metal plating (hard metal plating) only in closed-loop systems; (vi) certain medical devices; and (vii) fire-fighting foam. The specific exemptions are: (i) photo masks in the semiconductor and liquid crystal display (LCD) industries; (ii) metal plating (hard metal plating); (iii) metal plating (decorative plating); (iv) electric and electronic parts for some color printers and color copy machines; (v) insecticides for control of red imported fire ants and termites; and (vi) chemically-driven oil production.

China started manufacturing PFOS from the late 80-ies with a cumulative production of 1,600 metric tons to date. Currently, there are 12 producers in China that have capacity to manufacture PFOSF. All PFOSF factories employ the same industrial process. However, only five producers are manufacturing about 170 metric tons of PFOSF annually today and supplying it to the remaining seven producers as well as to other downstream producers (at least 15) to produce other PFOS-related substances that in the end translate to at least 100,000 metric tons of PFOS containing products and materials.

Until complete elimination, measures need to be taken to ensure that production and use under such exempted or acceptable purposes are carried out in a manner that prevents or minimizes human exposure and releases to the environment. Safe alternatives have to be researched and developed for the specific exemptions to ensure that elimination can be accomplished before the agreed deadline.

In April 2014, MEP listed PFOS in the related “Catalogue of Priority Hazardous Chemicals”. Environmental registration and permit are required for the listed chemicals for their production and consumption, and import and export, and are granted based on risk assessment. Moreover, enterprises are to establish and implement a pollutant release and transfer register (PRTR) of the hazardous chemicals and make it available to the public. However, intrinsic complexities involved in PFOS risk management coupled with the weak capacity of the key stakeholders render the compliance and enforcement of the measures a formidable task.

Relationship to CAS

The proposed project is consistent with Strategic Theme One: “Supporting Greener Growth of China” of the World Bank Country Partnership Strategy for FY 2013-2016. Under this theme, the project would support Outcome 1.6: Demonstrating Pollution Management Measures, which would

be achieved among others by “supporting efforts to reduce hazardous waste, by continuing to support the reduction of POPs - the byproducts of industrial production and the world’s most toxic chemicals - from the regulatory level to emissions control and urban site cleanup.” The project would also contribute to the World Bank Group’s goals of ending extreme poverty by 2030 and boosting shared prosperity through improving health conditions by reduced exposure to pollution and increased access to reliable and accurate environmental information. Access to information is currently limited for the bottom 40 percent, who are known to be relatively more exposed to degraded or highly-polluted areas than other population groups.

II. Proposed Development Objective(s)

Proposed Global Environmental Objective(s) (From PCN)

The project development objective is to reduce consumption and production of PFOS in selected industry sectors and enterprises.

Key Results (From PCN)

1. Annual PFOSF production and consumption is reduced by 55-65 tons;
2. Demonstration of BAT/BEP for environmentally sound production and use of PFOS in acceptable purposes;
3. Strengthened capacity of environment protection authorities and key industry sectors to manage and control PFOS

III. Preliminary Description

Concept Description

The proposed project will be carried out through four major components described below. While it is expected that GEF resources will be secured in order to finance part of PFOS reduction in the PFOS production facilities and in industries consuming PFOS, significant co-financing would have to be contributed by the industries. It is therefore unlikely to confirm all beneficiary enterprises that will participate in Components 1 and 2 at the project preparation stage. Beneficiary enterprises could only be determined during implementation when clarity on alternatives, financial and regulatory incentives is more evident.

Component 1. PFOS production reduction (total cost US\$44.7 mil, of which GEF US\$6.2 mil). This component will target PFOSF producers, as well as downstream producers of PFOS related chemicals and applications. The Project will provide technology transfer to assist producers to develop, convert, and register non-POPs alternatives. The Project will introduce cleaner production as BAT/BEP for existing PFOS production and for new non-PFOS production facilities, and support closure of redundant PFOSF and PFOS-related chemical production facilities. The potential beneficiaries are twelve PFOSF producers and about 15 producers of PFOS-related chemicals.

Component 2. Reduction of PFOS use (total cost US\$113.2 mil, of which GEF US\$13.3 mil). The project will target to reduce/eliminate PFOS use in the metal plating, pesticide, and fire-fighting foam production facilities. The potential beneficiaries will be selected from 6,000 chromium metal plating enterprises, a few pesticide manufacturers and 15 producers of fire-fighting foam containing PFOS surfactant. Technical and financial assistance to support activities ranging from introduction of new chemicals and manufacturing processes, demonstration of BAT/BEP, conversion of existing facilities, training of workers, promotion of non-PFOS products will be rendered to the participating enterprises.

Component 3. Regulatory Framework (total cost US\$6.3 mil, of which GEF US\$ 2.1 mil). This component will support the relevant authorities to strengthen policies and regulations to monitor production and use of PFOS. It includes, among others, registration of PFOS use, import and export control, update discharge/waste water standards to include PFOS, setting up thresholds for PFOS concentration in products, capacity for screening, accreditation, and appraisal of proposed alternatives for POPs-like characteristics. The Project will also support a design of options for certification/eco-labelling of non-PFOS products, and awareness raising activities.

Component 4. Project Management, Monitoring and Evaluation (total cost US\$ 5.35 mil, of which GEF US\$2.65 mil). This component will support costs associated with day-to-day project management and implementation including procurement, financial management, and environmental and social safeguards functions to be carried out by FECO. The Project will also finance incremental cost in relation to coordination and collaboration with other government agencies, non-government agencies, and the private sector. FECO and the Customs Department will develop a monitoring import/export system for PFOS and PFOS related chemicals. A monitoring system to preempt any diversion of PFOS from acceptable use to other banned applications will be developed. Annual evaluations of the reduction in PFOS use and release which will be carried out by FECO in collaboration with the local Environmental Protection Bureaus (EPBs) will be financed by this component.

IV. Safeguard Policies that might apply

Safeguard Policies Triggered by the Project	Yes	No	TBD
Environmental Assessment OP/BP 4.01	x		
Natural Habitats OP/BP 4.04		x	
Forests OP/BP 4.36		x	
Pest Management OP 4.09			x
Physical Cultural Resources OP/BP 4.11		x	
Indigenous Peoples OP/BP 4.10		x	
Involuntary Resettlement OP/BP 4.12			x
Safety of Dams OP/BP 4.37		x	
Projects on International Waterways OP/BP 7.50		x	
Projects in Disputed Areas OP/BP 7.60		x	

V. Financing (in USD Million)

Total Project Cost:	169.55	Total Bank Financing:	0.00
Financing Gap:	0.00		
Financing Source		Amount	
Borrower		145.30	
Global Environment Facility (GEF)		24.25	
Total		169.55	

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