

CDM-PA8249-RULE01

Ruling note

Rationale for the rejection of PRC-8249-001

Version 01.0



United Nations
Framework Convention on
Climate Change

1. The CDM-Executive Board decided to reject the proposed request for post-registration changes for CDM Project Activity (PA) 8249 on 28 November 2019 at its one hundred and fifth meeting, in accordance with the “CDM project cycle procedure for project activity” (PCP-PA), version 02.0, paragraphs 152. Further, in accordance with paragraph 153 of the PCP-PA, the ruling shall contain an explanation of the reasons and rationale for the final decision.

(a) The request for post-registration changes “8249-001: Catalytic abatement of N₂O in Nitric Acid Plant of Shiraz Petrochemical Company”, proposed to:

(i) Change ex-ante ‘historical operating temperature range of the ammonia oxidation reactor, T_{g,hist}’ parameter;

(ii) Change the values for N₂O concentration at inlet and outlet of the destruction facility; and

(iii) Change the gauze type in the AOR (Ammonia Oxidation Reactor).

The DOE (Carbon Check) failed to demonstrate compliance with the requirements of the Procedures and the applicable Standard as mentioned in paragraph (b) below.

(b) The relevant requirements are:

(i) The applicable methodology (AM0028, version 5.1, page 23) states that “In order to avoid that the operation of the nitric acid is manipulated in any way to increase the N₂O generation, thereby increasing the CERs, the following procedures relating to the operating temperature and pressure and the use of ammonia oxidation catalysts shall be applied.”

(ii) AM0028, version 5.1, page 24 further states that “In order to determine the permitted range of the operating temperature and pressure in the ammonia oxidation reactor, the project applicant has the obligation to determine the operating temperature and pressure range by:

a. Firstly, data on historical temperature and pressure ranges; or, if no data on historical temperatures and pressures are available; then

b. Secondly, by range of temperature and pressure stipulated in the operating manual for the existing equipment; or, if no operating manual is available or the operating manual gives insufficient information; then

c. Thirdly, by literature reference (e.g. from Ullmann’s Encyclopedia of Industrial Chemistry, Fifth, completely revised edition, Volume A 17, VCH, 1991, P. 298, Table 3. or other standard reference work or literature source).”

(c) The reasons and rationale for the final decisions are:

(i) Use of operating manual temperature range (810 – 885°C) as an option to determine the historical operating temperature range (T_{g,hist}) as per Option (b) of the applied methodology AM0028, version 5.1, page 24 is not correct

as the plant is operational since 1963 and therefore it cannot be justified that no historical data for temperature exists.

- (ii) Further, for the project activity, historical operating temperature range (Tg,hist) shall be established as per Option (a) of the applied methodology AM0028, version 5.1, page 24 since historical data for temperature is available (plant being operational since 1963).
- (d) Additionally, the Board acknowledges the justification provided by the PP and DOE that the Tg,hist fixed at the time of registration (840 – 860°C) maybe incorrect or not reliable. Therefore use of the Tg,hist based on operating temperature data obtained after the installation of the Distributed Control System (DCS) in 2017 (862 - 874°C) as a correction to historical data could be allowed as a special case (maintaining Option (a)), provided the PP and DOE wish to opt for the same and submit this as a post registration change request for further consideration by the Board.

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