

Environmental No Impact Factor for Decision Making on Pollutants

M. G. Babare, H. K. Jadhav and S. L. Jadhav

Department of Zoology

Arts, Commerce and Science College, Naldurg, Osmanabad. M.S., India

*Corresponding Author: - hansrajadhav11@gmail.com

Abstract: *The decision making process based on environmental impacts of pollutants can be mathematically expressed. It will be helpful for taking right decisions on discharge of water pollutants and emissions of air pollutants in the environmental recipient components. No effect release can be made possible by reducing the pollutants with suitable decision making for which the indicators for potential impacts from the produced pollutant release has to be developed as Environmental No Impact Factor (ENIF). With the development of suitable mathematical models, NEIF can be applied to different pollutant releases in order to select the best option for reducing the potential impacts from the released/discharged pollutants. The present paper describes the scientific aspects in brief for such model applicable for discharge of water pollutants, emission of air pollutants and release of soil pollutants by which decision making becomes easier.*

Keywords: Environmental Pollutants, Decision making, Pollutant release, Pollutant discharges, Environmental Effects, Environmental Impact Assessment, modeling.

REFERENCES

- [1]. Johnsen S., T.K. Frost, M. Hjelsvold and T.R. Utvik, (2000): "The Environmental Impact Factor- a proposed tool for produced water impact reduction, management and regulation". SPE paper 61178 presented at the SPE International Conference on Health, Safety and Environment in Oil and Gas Exploration and Production, Stavanger, Norway, 26–28 June 2000.
- [2]. Rye H., M. Reed, M. Kristin Ditlevsen, S. Berntsen & E. Garpestad, (2004), The "Environment Impact Factor" (EIF) for produced water discharges-a tool for reducing environmental impacts, Development and Application of Computer Techniques to Environmental Studies X, G. Latini, G. Passerini & C. A. Brebbia (Eds), 2004 WIT Press, www.witpress.com, ISBN 1-85312-718-3.
- [3]. Singaas Ivar, Henrik Rye, Tone Karin Frost, Mathijs GD Smit, Eimund Garpestad, Ingvild Skare, Knut Bakke, Leticia Falcao Veiga, Melania Buffagni, Odd-Arne Follum, Stale Johnsen, Ulf-Einar Moltu, and Mark Reed, (2008), Development of a Risk-Based Environmental Management Tool for Drilling Discharges. Summary of a Four-Year Project, Integrated Environmental Assessment and Management, Volume 4, Number 2, pp. 171-176.
- [4]. Reed M, Rye H, Johansen O, Johnsen S, Frost T, Hjelsvold M, Salte K, Greiff Johnsen H, Karman C, Smit M, Giacca D, Bufagni M, Gaudebert B, Durrieu J, Roe Utvik T, Follum O-A, Gundersen J, Sanni S, Skadsheim A, Beckman R, Bausant T., (2001), DREAM: A dose-related exposure assessment model. Technical description of physical-chemical fates components. In: Proceedings of the 5th International Marine Environmental Modelling Seminar; 2001 Oct.9-11; New Orleans, LA. Trondheim (NO): SINTEF Applied Chemistry. p 445-480.
- [5]. EU (European Union) (2003), Technical guidance document on risk assessment in support of Commission Directive 93/67/EEC on risk assessment for new notified substances and Commission Regulation (EC) No 1488/94 on risk assessment for existing substances and Directive 98/8/EC of the European parliament and of the council concerning the placing of biocidal products on the market. Ispra (IT): Environmental Chemicals Bureau.
- [6]. EU (European Union), (1996), Technical guidance document in support of commission directive 93/67/EEC on risk assessment for new notified substances and commission regulation (EC) No. 1488/94 on risk assessment for existing substances, Part I to IV, Office for official publications of the European Communities. ISBN 92-827-8011-2.



- [7]. EU (European Commission), (2006), Technical Guidance document on risk assessment in support of Commission Directive 93/67/EEC on risk assessment for new notified substances, Commission Regulation (EC) No. 1488/94 on risk assessment for existing substances, Directive 98/8/EC of the European Parliament and of the council concerning the placing of biocidal products on the market, Part 3, Environmental Chemicals Bureau.
- [8]. Karman C.C. and his co-workers, (1994), Ecotoxicological Risk of Produced Water from Oil Production Platforms in the Statfjord and Gullfax Fields, TNO Environmental Sciences. Laboratory for Applied Marine Research, den Helder, The Netherlands. Report TNO-ES, February 1994.
- [9]. Karman C.C., Johnsen S., Schobben H.P.M., Scholten M.C.T. (1996), Ecotoxicological Risk of Produced Water Discharged From Oil Production Platforms in the Statfjord and Gullfaks Field. In: Reed M., Johnsen S. (eds) Produced Water 2. Environmental Science Research, vol 52. Springer, Boston, MA., DOI 10.1007/978-1-4613-0379-4_13.
- [10]. Karman C. C. and Reerink, H. G., (1997), Dynamic Assessment of the Ecological Risk of the Discharge of produced Water from Oil and Gas producing Platforms. Paper presented at the SPE conference in 1997, Dallas, USA. SPE paper No. SPE 37905.
- [11]. Holguin-Veras J., (1993), Comparative assessment of AHP and MAV in highway planning: case study. J Trans Eng 121(2):191-200.