Table 1.1: Summary of evaluation criteria for selected models

Model Category	Model Name	Free?	Availability of Graphical User Interface	Complexity of Inputs	Validated against dense gas experiments	Validated against CO_2 experiments	Able to represent a range of source configurations	Ability to account for complex terrain and obstructions	Ability to account for complex meteorology
Integral	SLAB	Yes	Purchase	Medium	Yes	Low	Medium	None	Low
	DEGADIS	Yes	Purchase	Medium to High	Yes	Medium	Low	None	Low
	HGSYSTEM	Yes	No	Medium to High	Yes	Medium	High	Low	Low
	ALOHA	Yes	Free	Low	Yes	Low	Low	None	Low
	EFFECTS (v10)	No	Purchase	Medium	Yes	High	High	None	Low
	SAFER/TRACE	No	Purchase	Medium	Yes	Low	High	None	Low
	GASTAR	No	Purchase	Medium	Yes	Low	High	Medium	Medium
	PHAST	No	Purchase	Medium	Yes	High	High	None	Low
Lagrangian	*QUIC[b]*	*Yes*	*Free*	*Medium*	*Yes*	*Low*	*High[b]*	*High*	*High*
	SCIPUFF	Yes	Free	High	Yes	Low	High	Medium	Medium
	ArRisk[a]	No	Purchase	Medium	Yes	Low	High	High	High
	CHARM (flat terrain)	No	Purchase	Medium	Yes	Low	High	None	Medium
	CHARM (complex terrain)	No	Purchase	Medium	No	Low	High	High	Medium
FD	FLUENT, PANACHE, FLACS, ANSYS-CFX	No	Purchase	High	Yes	Low	High	High	High
	OpenFOAM	Yes	Purchase	High	Yes	Low	High	High	High

(a) Includes MicroSWIFT-SPRAY

(b) Currently only available for non-profit research purposes.

EXHIBIT

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