



COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF LAND RECYCLING AND WASTE MANAGEMENT

Background Standard

Site Name: _____ LRP ID Number: _____

Contact for Remediator: Name _____ Telephone #: _____

Contact for Consultant: Name _____ Telephone #: _____

Complete				Requirements	Where in Report?	Comments#/date
Y	N	N/A				
			1	NOTIFICATION (All Remediations)		
			2	Date Notice of Intent to Remediate submitted		
			3	Date proof of publication in a newspaper submitted		
			4	Date NIR published in a newspaper		
			5	Date proof of NIR submission to municipality submitted		
			6	Date NIR submission published in <i>Pa. Bulletin</i>		DEP Input
			7	NOTIFICATION Site-Specific Standard and Special Industrial Area Remediations		
			8	Did municipality request involvement in site remediation or reuse?		
			9	If yes, was a public Involvement Plan submitted?		
			10	Did plans or reports provide response to any public comments for site-specific standard or SIA remediation?		
			11	FINAL REPORT		
			12	Date Final report submitted		
			13	Submission started 60 day review period?		
			14	Date submission of required fee submitted and amount		
			15	Date proof of publication of final report in a newspaper submitted to DEP		
			16	Date final report published in a newspaper		

* May include the rationale for why a "No" or "N/A" answer is acceptable, or a reference to a comment memorandum.

Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			17	Date DEP received proof that municipality was notified of submission of final report	
			18	Date final report submission published in <i>Pa. Bulletin</i>	DEP Input
			19	Date final report approved/disapproved	DEP Input
			20	Reason for disapproval of final report	DEP Input
			21	Date Department action on final report published in <i>Pa. Bulletin</i>	DEP Input
			22	Was the final report for either a Background or Statewide health standard remediation submitted within 90 days of release?	
			23	If yes, what was the date of the release	
			24	PERSONNEL	
			25	Name of ECP staff contact	
			26	Remediator's Name, address, and telephone number	
			27	Consultant's Name, address, and telephone number	
			28	Other	

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Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			29	SITE CHARACTERIZATION (for all three standards)	
			30	Determination of Site	
			31	Was an appropriate number of samples collected to characterize the source, nature and composition of contamination?	
			32	Groundwater	
			33	Soil	
			34	Are site boundaries identified and mapped by appropriate number and location of samples?	
			35	Groundwater	
			36	Soil	
			37	Is a site conceptual model provided describing the sources of contamination, fate and transport, and potential receptors?	
			38	Fate and Transport Analysis	
			39	Is the direction and rate of movement determined?	
			40	Is the future extent of contamination determined?	
			41	Is the fate (breakdown products) determined? (if applicable)	
			42	For Groundwater (if applicable)	
			43	Is the name and version of the analysis, a description of the analysis, and the name of the organization or the person who developed analysis provided?	
			44	Are the input data identified?	
			45	Are the assumptions of the analysis identified and justified?	
			46	Are quality assurance and quality control documented?	

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Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			47	Are the results documented in appropriate figures and tables?	
			48	Other Information	
			49	Groundwater	
			50	Were the interpretations of geologic and hydrogeologic data prepared by a licensed professional geologist?	
			51	Have the effects of a release been characterized to define the movement of groundwater and contaminants, including position of the aquifers, and geologic units, which inhibit flow?	
			52	Is aquifer characterization, the effect of local and regional groundwater flow directions and any influence from pumping wells documented?	
			53	Were properly constructed and developed wells used in the characterization?	
			54	Were the samples taken a sufficient number of days apart to yield independent results?	
			55	Was more than one round of sampling used in the characterization?	
			56	Did the characterization consider the specific gravity of the contaminants and vertical gradients in determining vertical extent?	
			57	Soil	
			58	Have the relative location, conductivity, and heterogeneity of the soils been described?	
			59	Has the horizontal and vertical extent of soil with concentrations of regulated substances above the selected standard been identified?	

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Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			60	Have samples from the locations with the highest concentrations been collected to determine applicability of selected remedial methods and disposal requirements?	
			61	Other Plans	
			62	Is there a Sampling and Analysis Plan?	
			63	Are there copies of soil and geologic boring descriptions used for characterization?	
			64	Are there copies of laboratory analytical results and applicable laboratory quality control documentation?	
			65	END OF PROCESS FOR SITE CHARACTERIZATION	

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Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			66	BACKGROUND STANDARD	
			67	Determination of Background - General Criteria	
			68	Soil	
			69	Is background reference region clearly identified? Background reference region defines the background reference areas within which all background samples were collected	
			70	Are the background reference region and background reference areas free of contamination from any release at the site?	
			71	Is the sampling at the background reference area and the contaminated area comparable and random?	
			72	Representative background samples: Are there any significant differences in physical, chemical and biological characteristics that might cause measurements in the background reference area and the contaminated area to differ? (If yes, please provide rationale.)	
			73	Soil type	
			74	Physical, chemical and biological characteristics	
			75	Depth below ground	
			76	Groundwater	
			77	Are the background reference wells clearly identified?	
			78	Are the background reference wells hydrogeologically upgradient from onsite release?	
			79	Are the background reference wells affected by any release at the property?	

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Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			80	Are the background reference groundwater concentrations determined at the background reference wells representative the groundwater flowing onto the site?	
			81	Remediation	
			82	Are the descriptions of treatment, removal or decontamination procedures performed in remediation provided?	
			83	Attainment Sampling Requirements and Attainment Demonstration	
			84	Soil	
			85	Is the number of samples taken from background area greater or equal to ten?	
			86	Is the number of samples taken from each distinct area of contamination greater than or equal to ten?	
			87	Are the POCs throughout the area of contaminated soil a result of releases on the property?	
			88	Was one of the following statistical methods used to demonstrate attainment?	
			89	Is the highest background measurement greater than or equal to the highest measurement from the area of concern?	
			90	Was a combination of Wilcoxon Rank Sum test and quantile test used to compare two populations?	
			91	Was other appropriate statistical method that meets the requirements in 250.707(a)(1)(iv)-(vi) used?	
			92	Groundwater upgradient release	
			93	Were there 8 samples collected from a background reference well over a period of 8 quarters?	

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Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			94	Was the highest measurement in this background reference well selected as the upper tolerance limit?	
			95	Were there 8 samples collected in each onsite well during the same 8-quarter period?	
			96	Are the points of compliance throughout the plume?	
			97	Is the maximum of the data collected from each onsite well at or below the upper tolerance limit?	
			98	If the upper tolerance limit was not met, was a retesting strategy using nonparametric predicting limit implemented in accordance with current EPA guidance?	
			99	If the sampling was shortened to 4 quarters or less, are all the following criteria met?	
			100	A stable plume condition.	
			101	Parameters affecting the fate and transport of regulated substances in the plume have been fully evaluated.	
			102	Coefficient of variation for 8 samples collected over 4 quarters is 1.0 or less for metals and 2.0 or less for organic compounds.	
			103	Age of plume implies stability and no recent upgradient source remediation.	
			104	Groundwater with natural occurring or areawide contamination	
			105	For areawide contamination, was DEP's written approved obtained?	
			106	Were there 12 or more samples collected to determine the background concentrations?	
			107	Was the same number of samples collected within and representative of the area of groundwater contamination onsite?	

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Complete			Requirements	Where in Report?	Comments#/date
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			108	Are the points of compliance throughout the plume?	
			109	Were the samples from the upgradient wells and the wells in the plume onsite collected during the same sampling event?	
			110	Was an appropriate statistical method that meets the criteria in 250.707(d) used to compare two populations?	
			111	Is the sum of background arithmetic average plus 3 times standard deviation greater than or equal to all sampling results in the plume onsite?	
			112	If historic fill is claimed, are all of the following three criteria also met?	
			113	Fill was placed "long ago"(i.e. historical, prior to 1980).	
			114	Fill was not placed with responsible party's direction.	
			115	Fill is present on and beyond the subject property.	
			116	Surface Water and Air	
			117	Does the point source comply with NPDES requirements, if applicable?	
			118	If applicable, does the report demonstrate that the site meets surface water quality requirements?	
			119	If applicable, does the report demonstrate that the site meets air quality requirements?	
			120	Other Information	
			121	Does the final report include all items identified in the site characterization checklist?	
			122	Does the final report also contain all of the following information? (Check "Y" for all present)	

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Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			123	General site layout (with property boundaries) map which includes area of Act 2 liability relief and areas where background samples taken	
			124	Plan view figures showing extent of contamination and sampling points	
			125	Cross-section figures showing extent of contamination and sampling points	
			126	Figures illustrating conceptual site model interpretations	
			127	Plan view and cross-sections of contamination with superposed remediation activities	
			128	Summary tables of site characterization data	
			129	Summary tables of attainments data	
			130	Does the final report also contain all of the following applicable information? (Check "Y" for all present)	
			131	Executive summary	
			132	Site description	
			133	Site characterization	
			134	Background standard	
			135	Remediation	
			136	Attainment	
			137	Fate and transport analysis	
			138	If required, is a post-remediation care plan that meets the requirements in 250.204(g) provided?	
			139	References	
			140	Attachments	
			141	Signatures	
			142	Submission fee of \$250 included?	

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Complete			Requirements	Where in Report?	Comments#/date
Y	N	N/A			
			143	Proof of publication of newspaper notice included?	
			144	Date report submission notice published in a newspaper	
			145	Proof of municipality notice included?	
			146	END OF PROCESS FOR BACKGROUND STANDARD	

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