

INDIANA ENVIRONMENTAL STEWARDSHIP PROGRAM ANNUAL PERFORMANCE REPORT

State Form 53475 (R8 / 1-22) INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT ENVIRONMENTAL STEWARDSHIP PROGRAM

Indiana Department of Environmental Management Office of Program Support

MC 64-00, Room IGCN 1316 100 North Senate Avenue Indianapolis, IN 46204-2251 Telephone: (800) 988-7901 FAX: (317) 233-5627

E-mail: esp@idem.IN.gov

Please use this form if you are a member of the Indiana Environmental Stewardship Program (ESP) to report on progress toward objectives and targets AND certify ESP requirements continue to be achieved. Indiana ESP facilities must submit an Annual Performance Report (APR) by April 1st of every year, for each calendar year in which the entity has been a member for at least three (3) full months. Membership terms are renewed every four (4) years through submitting your APR. Your APR should be reviewed and signed by a senior manager at your facility prior to submittal. Once signed, e-mail the APR to IDEM at esp@idem.IN.gov. Please do not include any confidential business information in your annual performance report. Public access laws require IDEM to make the APR publicly available, which may include posting all portions of your report on the Indiana ESP Web site. If you have any questions, please contact IDEM at esp@idem.IN.gov or (800) 988-7901.

This form will also be used for ESP members who are also members of the Indiana Partners for Pollution Prevention Program to recertify their membership and reaffirm their commitment to the Partners Pledge.

SECTION A	FACILITY I	NFORMATION	
Name of facility Cummins Inc., Columbus Engine Plant		I ONMATION	
Name of parent company (if applicable) Cummins Inc.			
Street address (number and street) 500 Central Ave.			
City / State / ZIP code Columbus, IN 47201			
County Bartholomew			
Website of facility / company www.cummins.com			
How many employees (full time equivalent 1400	ts) currently work at your facility?		
		NFORMATION	
Name of Primary Contact (Mr. / Mrs. / Ms. Mr. David Wehrkamp		Title Environmental Supervisor	
Telephone number (812) 530-6571	Mobile phone number ()	E-mail address david.a.wehrkamp@cummins.com	
Mailing address (if different from facility ad 500 Central Avenue, MC14503	ldress)		
City / State / ZIP Code Columbus, IN 47201			
Name of Secondary Contact (Mr. / Mrs. / M	As. / Dr.)	Title	
Telephone number ()	Mobile phone number ()	E-mail address	
Mailing address (if different from facility ad	dress)	1	
City / State / ZIP Code		8	
	REPORT	NG PERIOD	
Reporting period dates from prior calendar 01/01/2021 - 12/31/2021	year (mm/dd/yyyy – mm/dd/yyyy)		
Is this the fourth ESP Annual Perform Yes—If yes, answer question 1b. No—If no, skip to question 2a.	nance Report of your membership to	erm?	
1b. Do you wish to renew your Indiana E Yes—If yes, please answer question No—If no, please answer question	tion 2a and complete all sections of	n membership? this annual report. his annual report except for Section F.	
2a. Are you a member of the Indiana Par ⊠ Yes—If yes, answer question 2b. □ No—If no, skip to the *Change in		ners) Program?	

		BERORYING	EDIOD (CONTINUED)	
2b	Yes—If yes, plea	rtify your Partners for Pollution Prevention (Partnerse complete all sections of this annual report.	CONTRACTOR CONTRACTOR	
ose.	☐ No—If no, pleas	e complete all sections of this annual report excep	ot for Section F.	
	070000 <u>A</u> <u>=</u> 00		N INFORMATION	
In y cha	our ESP application a ringes or additions to y	nd, perhaps, in previous annual performance repo our facility's list of products or activities?	orts, you described what your facilit	y does or makes. Have there been any
	☐ Yes—If yes,	please describe them:		
	⊠ No			
SE	CTION B	PUBLIC OUTREACH AI	ND PERFORMANCE REPORTING	
	ny do we need this in: EM needs to know how blic.			What do you need to do? Describe how the facility has shared and plans to share environmental information.
ich	ase briefly describe th ort publicly on its envi cyling Roundtable Disc	e activities that your facility conducted during this conmental performance. Presented with BCSW Pussion.	reporting period to interact with the artner on the Cummins Community	community on onvisenmental in-
Ple as i	ase indicate which of t many as appropriate.	he following methods your facility plans to use to	make its ESP Annual Performance	Report available to the public. Please check
	Web site (http://www.) ☐ Open house		Other: Email, Postings
SEC	CTION C	ENVIRONMENTAL MANA	GEMENT SYSTEM ASSESSMEN	
Fac crite	y do we need this inf ilities need to have im eria and use an ISO 14 ly-six (36) months to a	plemented an EMS that meets certain 1901 EMS Lead Auditor at least every		What do you need to do? Answer the following questions about your EMS.
1.		ent date that an ISO 14001 EMS Lead Auditor per	rformed an EMS assessment at you	ur facility? 09/23/2021
2.	Name, title, and orga Dave Burlee, JEP HS	nization of ISO 14001 EMS Lead Auditor who cor SE Leader, Cummins Inc. Certifying Lead Auditor,	nducted the most recent EMS asser Wes Hartley, ROT HSE Risk Mana	ssment:
3.		st recent EMS assessment performed by an ISO		
	Yes—If yes	s, skip to Question 4.		
	☐ No—if no, i meets	olease have your ISO 14001 EMS Lead Auditor of the listed criteria for ESP membership:	omplete and sign the following chec	cklist, indicating whether or not your EMS
	Yes No	Evidence of senior management support, comm		
	Yes No	A written environmental policy directed toward of	compliance, pollution prevention, ar	nd continuous improvement.
	Yes No	Identification of the environmental aspects at the	e entity.	
	☐ Yes ☐ No	Prioritization of the environmental aspects and a environmental impacts and applicable laws and	a determination of those aspects de regulations.	emed significant considering, at the minimum,
	Yes No	Established priorities, and environmental object for ensuring compliance with applicable environ beyond current legal requirements and specify t implementation activities, and projected time fra	mental laws, regulations, and perm he environmental media, types of r	it conditions. Objectives and targets must be
	Yes No	An established community outreach mechanism community of important matters that affect the cenvironmental policy and significant aspects.	that includes identifying and response	ending to community concerns; informing the IS, including reporting to the public on the
	Yes No	Incorporation of environmental and pollution pre and modifications of existing processes.	vention planning in the developme	nt of new products, processes, and services
	Yes No	Evidence of clear responsibility for implementati compliance with applicable environmental laws,	on, training, monitoring, EMS main regulations, and permit conditions.	tenance, taking corrective action, and ensuring
	Yes No	Documentation of the implementation procedure		
	Yes No	Appropriate written EMS procedures.		
	Yes No	An annual evaluation of the EMS with written re-	sults provided to senior manageme	nt and affected employees.
	Signature of ISO 140	01 EMS Lead Auditor		Date (month, day, year)

SE	CTION C ENVIRONMENTAL MANAGEMENT SYSTEM ASSESSMENT
4.	Were any deficiencies found during the most recent EMS assessment?
7.	Yes—If yes, describe any deficiencies found and the corrective action taken to address each deficiency:
	— was any constant and the confective action taken to address each dericlency:
	⊠ No
5.	What type of protocol was used to perform the independent EMS assessment?
-	☑ ISO 14001:2015 Certified audit
	ESP Independent Assessment Protocol Other (please specify):
6.	Is the EMS certified to a recognized standard?
	Yes—If yes, what standard does the EMS follow (please provide a copy of the most recent certificate)?
	ISO 14001:2015 Responsible Care EMS
	Responsible Care 14001
_	∐ No
7.	When was the last Senior Management review of your EMS completed? Month / Year: 08/20/2021
	Who headed the review (name and title)? Haarish Venkitachalam, CEP Site Leader
8.	When did your facility last conduct an internal or corporate environmental compliance audit? Do not include inspections or site visits by regulatory organizations.
	Scope of the compliance audit: HSEMS
	Month(s) / Year(s): 12/2021 Who conducted the audit(s) (e.g., facility staff, corporate, third party)? Facility Staff and 3rd Party (T&M Associates)
	Tacinty Stail and 3" Party (1 km Associates)
9.	Explain the emergencies experienced within the facility during the past year. Were the applicable emergency and contingency plans detailed in the EMS effective? What changes, if any, have been made to your facility's emergency or contingency plans?
	Covid-19 pandemic response and continuing to adjust to changes in playbook.
10.	Has your facility corrected all instances of potential environmental non-compliance and EMS non-conformance identified during your audits and other assessments?
	☐ Yes—If yes, briefly summarize corrective actions taken and other ☐ No—If no, please explain your ☐ No such instances identified.
	improvements made as a result of your EMS assessment(s) or compliance audit(s).
	As a result of the EMS SWOT Analysis, we have worked to improve data monitoring and diagnose metering availability, communicate and add more focus on trending and documentation ownership, and drill down to sub-level users/generators of the site.
	2 = 12 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 =
0-6	
Why	ADDITIONAL INFORMATION / do we need this information?
This	information will help IDEM to effectively manage the ironmental Stewardship Program. What do you need to do? Answer the questions as completely as possible.
1.	In addition to ESP, please list environmental awards received or voluntary programs participated in during the past twolve (12) months
	IDEM's P2 program
2.	Has your facility taken advantage of any ESP incentives? If so, please describe the implementation process and list additional benefits IDEM should consider.
	Yes. Advanced notice of inspections.

- 3. If your facility was not registered to the ISO 14001 standard prior to becoming an ESP member, has ESP helped you to pursue registration? If so, how has ESP been instrumental in achieving registration? N/A. Site was already an ISO 14001 registered site.
- Are the ESP and/or Partners group meeting your expectations? Please provide feedback or suggestions. Yes, Good programs to get ideas from other ESP and P2 partners.

SECTION D

ADDITIONAL INFORMATION (CONTINUED)

 If you are a member of Partners, please reaffirm your facility's or organization's pledge to the Partners and provide additional information regarding commitment to pollution prevention (P2).

Yes	No		
⊠		 Ensure employees are aware of the facility's commitment to P2 and understand their role in implementing P2 objectives and goals in the facility. 	
⊠		2. Your facility has incorporated P2 planning in the development of new products, processes, and/or services.	
\boxtimes		Your facility established a mechanism to monitor waste generation and identify realistic P2 goals.	
\boxtimes		Your facility has established a process to listen and respond to stakeholder concerns.	
☒		Your facility makes available your general waste reduction and P2 information to members of our community, IDEM, and the Partners, if requested?	
⊠		Your facility has participated in or conducted outreach activities that include details of your P2 efforts; please specify: IDEM Indiana Recycling Roundtable Discussion: Community-wide Recycle Day topic with BCSW Partner.	
⊠		7. Your facility has participated in two or more Partners meetings in the last year.	
×		8. Your facility supported the annual Pollution Prevention Conference and Trade Show. Please check all that apply: Financial sponsorship One or more attendees from your facility Other (specify)	

SECTION E

ENVIRONMENTAL IMPROVEMENT INITIATIVE RESULTS

Why do we need this Information?
Facilities need to share the results of the environmental improvement initiative that was pursued during the reporting period. IDEM needs to report cumulative program reduction results.

What do you need to do?
Reference Section F for "Category" and "Indicator" options to complete this section. Summarize your facility's progress on achieving the initiative you identified in the application or last year's APR. For assistance, please call (800) 988-7901 or email esp@idem.IN.gov.

Initiative #1

2019 893,620	2021	
803 630	2202020202020	1 - 2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
093,020	24,608,330	Gallons
ed Labor Hours nt) Other specify		duction lbs.
525	531	NA
	nt) Other specify 525	nt) Other specify (e.g. Gallons, length, etc.)

Normalization factor (Current year production + Baseline year production) 1.01

Normalized quantity (Actual current year quantity - Actual baseline quantity) x Normalization factor -288,550.46 Gallons

Briefly describe how you achieved improvements for environmental initiative #1 or, if relevant, any circumstances that delayed progress.

Project was designed to utilize new technology that would increase cooling tower cycles from 2.5 to 3.5 and utilize new chemicals that would reduce cooling tower water blow down, and ultimately reduce plant water consumption and save on chemical treatment costs. Cycle increase was not yet accomplished due to project difficulties, but new chemicals were installed from which the 2021 savings was a result. Cycle increase will be the target for 2022 water reduction.

nitlative #2					
Category 2: Non-hazardous Waste Indicator 2: Reused/Recycled off-site	Baseline (indicate measurement unit)	Current (indicate measurement unit)	Cost Savings		
Calendar year	Q4 2020	Q4 2021			

Actual quantity (per year)	430,775	124,950	Pounds	
Production unit (select one)	Earned Labor Hours X Other specify (e.g. Gall			
Production Quantity	43,972	46,111	NA NA	

Normalization factor (Current year production + Baseline year production) 1.05

Normalized quantity (Actual current year quantity - Actual baseline quantity) x Normalization factor - 320,701.73 pounds

Briefly describe how you achieved improvements for environmental initiative #2 or, if relevant, any circumstances that delayed progress. Installed new filter press to further reduce sludge generated at the facility in late September of 2021. Savings generated from this technology yielded a decrease of around 70% in 3 months time, as well as a reduction of transportation costs.

Category 3: Energy Use Indicator 3: Solar	Baseline (indicate measurement unit)	Current (indicate measurement unit)	Cost Savings
Calendar year	2020	2021	
Actual quantity (per year)	- 493 kWh	- 309,559 kWh	\$26,621.82
Production unit (select one)	Earned Labor Hours X None Other specify (e.g. Ga	Production units Production It	os.
Production Quantity	1	1	NA

Normalization factor (Current year production + Baseline year production) 1.00

Normalized quantity (Actual current year quantity - Actual baseline quantity) x Normalization factor - 309,066 kWh

Briefly describe how you achieved improvements for environmental initiative #3 or, if relevant, any circumstances that delayed progress. In 2020, project was implemented to use solar energy to supplement wash tank water healing during the month of December, 2020. UV Collector system commissioning delayed due to COVID-19. UV Collector System was fully operational in 2021 to yield an annual savings.

SECTION E

ENVIRONMENTAL IMPROVEMENT INITIATIVE RESULTS CONTINUED

- 1. Briefly describe the impacts or wastes eliminated resulting from the environmental initiative(s). If multiple initiatives, please indicate which specifically.
- Cooling Tower Water Use: CEP's Cooling Tower is the largest water user of ^80% total site consumption. The utilization of new chemicals were aimed to reduce make-up water, and ultimately reduce plant water consumption while saving on chemical treatment costs.
- Liquid Sludge Reduction: CEP's waste water sludge is approximately 70% water. By bringing the filter press back on line we were able to separate the water from sludge, reducing transportation (GHG reduction) and cost.
- UV Collector: Utilized solar energy to supplement wash tank heating energy consumption. Project is being studied as a possible future solar supplemental heating potential.
- Are there other best management practices (BMPs) you can share correlating to your initiative(s)?Utilizing the continuous improvement process.
- 3. If the objectives and targets associated with the environmental improvement initiative(s) were not attained, please verify continued progress toward the environmental initiative(s). If multiple initiatives, please indicate which specifically.

Most of the objectives were achieved, but the pandemic effect on supply chain and reduced staff/work hours impacted projected completion on one project and the cancellation of another.

4. Please provide a narrative summary of progress made toward qualitative, significant EMS objectives and targets, if any.

A major driver in CEP's continuous improvement program is using data to identify possible improvements and solutions. One example of this is the liquid sludge reduction project. The site did not have enough capacity to process all the liquid sludge, so a study was conducted in 2020 showing that a larger filter was needed. In 2021 this new filter press was installed to totally eliminate liquid sludge disposal, and once operational, we were able to see a noticeable reduction by the last quarter in 2021.

5. Please list any state, U.S. EPA, or other partnership programs to which you are reporting this data (e.g., Energy Star, DOE Energy Performance, state award application).

Department of Energy - Superior Energy Performance

. Would your facility be willing to nd/or a Partners for Pollution Pi	o share the environmental improvemen revention quarterly meeting or conferen	t initiative(s) and its best man	nagement practices (BMI	Ps) at the ESP Annual Meeting
ECTION F	FUTURE YEAR E	NVIRONMENTAL IMPROVE	EMENT INITIATIVE	
Vhy do we need this informate facilities need to show they are heir environmental performance	ion? committed to improving		Refer to t	What do you need to do he Environmental Performand answer the following question
(e.g., 2023). Next, list end of the future year.	boxes in the following table to indicate selected by your facility. For the cate the baseline annual quantity (e.g., 5 to be seen to be seen annual quantity (e.g., 5 to be seen annual quantity)	gory and indicator selected	list the haseline year le	a 2022) and the future ware
Category	Indicator	Baseline Year 2021	Future Year 20 <u>22</u>	Unit
☐ Material Procurement	☐ Recycled content			☐ Pounds, ☐ tons☐ gallons
	☐ Hazardous/toxic components			☐ Pounds, ☐ tons ☐ gallons
Suppliers' Environmental Performance	☐ Specify indicator:			As specified for the particular indicator
	☐ Materials used			☐ Pounds, ☐ tons
				☐ gallons

☐MPN/ml, ☐ CFU/ml

Category	Indicator	Baseline Year 20 <u>21</u>	Future Year 20 <u>22</u>	Unit		
	☐ Landfill			□Pounds, □ tons		
⊠ Non-hazardous Waste □ Hazardous Waste	☐ Incineration			□Pounds, □ tons		
	☑ Reused/recycled off-site	1,543,324	780,500	⊠Pounds, ☐ tons,		
	Other:			☐Pounds, ☐ tons,☐gallons		
Noise	□ Noise			dBA		
☐ Vibration	☐ Vibration			Inches per second		
	Expected lifetime energy use			kWh, MWh,		
	☐ Expected lifetime water use			Gallons		
Products	Expected lifetime waste to air, water, or land from product use	200 Page 1		☐ Pounds, ☐ tons		
	☐ Waste to air, water, or land from disposal or recovery			☐ Pounds, ☐ tons		
SECTION F	C	IVIRONMENTAL IMPROVE				
Continuation of project initia	mprovement initiative(s) will be qualitation ted in September of 2021, reducing wation of transportation costs from reduction ower project.	ste water liquid sludge gene	a. rated and disposed of off	fsite by utlizing the new plant		
Filter press has been comm	What activities or process changes do you plan to undertake at your facility to accomplish your future initiative (e.g., technology changes in a particular process line, employee training)? Filter press has been commissioned and was operational by the last quarter of 2021. Continue to press sludge and reduce waste shipments for disposal. Cooling Tower cycle increase from 2.5 to 3.0, investigate supplementing R.O. water to gain increase to 3.5 cycles.					
✓ Yes	and the state of t					
	CERTIFICA	ATION AND PLEDGE				
On behalf of (name of facility) Cu	mmins Inc. Columbus Engine Plant (CE					
to the best of my knowledge and	nined in this Annual Performance Repor based on reasonable inquiry, currently action program in place to attain compl	in compliance with all applic.	e to the best of my know able federal, state, and lo	vledge and that this facility is, ocal environmental		
facilities. We understand that we membership (for a total of four (4) reapply to the Indiana Environme I understand that the information	commit to main invironmental Stewardship Program sta ons. We agree to promote the Indiana must meet the requirement of impleme initiatives), that the Annual Performantal Stewardship Program every four (4 provided in this Annual Performance Resecute this statement on behalf of the	Environmental Stewardship inting one (1) new, independ ce Report must be submitted) years.	ull compliance with all reg Program and to share ou ent environmental impro I to IDEM by April 1st of e	gulations promulgated by the ir success stories with other vement initiative each year of each year, and that we must		

Signature Hagis		Date (month, day, year) 03/21/2022
Printed signature \ Haarish Venkitachalam	Title CEP Site Leader	