



GRAND VALLEY  
STATE UNIVERSITY

College of Liberal Arts and Sciences  
Dean's Office

**Via email: [bryan.parker@nrc.gov](mailto:bryan.parker@nrc.gov)**

October 11, 2012

Bryan Parker  
US Nuclear Regulatory Commission, Region 3  
2443 Warrenville Road  
Suite 210  
Lisle, Illinois 60532-4352

**RE: Additional Information, License Amendment Application  
Grand Valley State University  
NRC Material License Application: 21-32172**

Dear Mr. Parker,

This letter is written in response to your request for more information concerning the use of radioactive materials by proposed Authorized User Dr. Dawn Clifford Hart. Dr. Hart is conducting research in which small quantities of P-32 will be necessary, and we would like her name added to our NRC Material License.

The nature of Dr. Hart's work will be nearly identical to work she conducted at Wayne State University and Vanderbilt University over the period 2001-2008. Her past procedures called for the use of 500 uCi of ATP-Gamma P-32 in a 10 mCi/ml solution. In her proposed work here at Grand Valley State University will likely use the same form and concentration of P-32 in 250 uCi quantities at a time. The work will likely continue over a 2 year period. Over that time the total use of P-32 will likely be 1 mCi.

Dr. Hart as effectively demonstrated that she has sufficient training and experience with quantity and chemical form of the isotope she has requested to use. I ask that the amendment application be approved. If you require any additional information, please do not hesitate to contact me at 616-331-8628 or [seufertj@gvsu.edu](mailto:seufertj@gvsu.edu).

Sincerely,

Jim Seufert, R.E.H.S.  
Radiation Safety Officer



College of Liberal Arts and Sciences  
Cell & Molecular Biology

October 6, 2012

**Dawn M. Clifford Hart: Previous experience with P32 and radiation safety training.**

Wayne State University Medical School, PhD Student

- 1) Completed radiation safety training course (2001) and annual refresher until graduation in 2004.
- 2) Published the two first author research articles where I directly performed experiments with P32.

**Note: Dawn M. Clifford Hart is Clifford, DM**

**Clifford DM**, Stark KE, Gardner KE, Hoffmann-Benning S, Brush GS. Mechanistic insight into the Cdc28-related protein kinase Ime2 through analysis of replication protein A phosphorylation. *Cell Cycle*. **2005**, 4(12):1826-1833.

**Clifford DM**, Marincio SM, Brush GS. The meiosis-specific protein kinase Ime2 directs phosphorylation of replication protein A. *Journal of Biological Chemistry*. **2004**, 279(7):6163-6170.

Vanderbilt University Medical Center, Postdoctoral Fellow

- 1) Completed radiation safety training course (2005) and annual refresher until moving to faculty position at Grand Valley State University in 2008.
- 2) Published four research articles where I directly performed experiments with P32.

**Note: Dawn M. Clifford Hart is Clifford, DM**

Almonacid, M., Celton-Morizur, S., Jakubowski, J.L., Dingli, F., Loew, D., Mayeux, A., Chen, J.S., Gould, K.L., **Clifford, D.M.** & Paoletti, A. Temporal control of contractile ring assembly by Plo1-dependent regulation of Myosin II recruitment by Mid1/Anillin. *Curr Biol*, **2011**, 21(6): 473-479. (Published after moving to GVSU, radioisotope work completed at Vanderbilt University by Dawn M Clifford Hart.)

Bohnert KA, Chen JS, **Clifford DM**, Vander Kooi CW, Gould KL. "A Link between Aurora Kinase and Clp1/Cdc14 Regulation Uncovered by the Identification of a Fission Yeast Borealin-like Protein." *Molecular Biology of the Cell*, **2009**, 20(16):3646-3659.

**Clifford DM**, Wolfe BA, Roberts-Galbraith RH, McDonald WH, Yates III JR, and Gould KL "Clp1/Cdc14 phosphatase contributes to the robustness of cytokinesis by association with anillin-related Mid1." *Journal of Cell Biology*. **2008**, 181(1):79-88. (Highlighted in VU Reporter, May 2008)

Chen CT, Feoktistova A, Chen JS, Shim YS, Roberts RH, **Clifford DM**, Gould KL, and McCollum D. "The SIN kinase Sid2 regulates cytoplasmic retention of the *S. pombe* Cdc14-like phosphatase Clp1." *Current Biology*. **2008**, 18(20):1594-1599.

A handwritten signature in black ink, appearing to read 'Dawn M. Hart'.

Dawn M Clifford Hart, PhD  
Assistant Professor of Cell & Molecular Biology

## **Parker, Bryan**

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**From:** Jim Seufert [seufertj@gvsu.edu]  
**Sent:** Monday, October 08, 2012 10:10 AM  
**To:** Parker, Bryan  
**Subject:** GVSU License Amendments  
**Attachments:** Dawn Clifford Hart Radiation Safety Training.pdf

Bryan,

Dr. Hart provided a more specific description of her work and training directly related to P-32. As you'll see, she has extensive experience working with P-32 both at Wayne State University and Vanderbilt University. This work is very similar to the scope of work she has proposed to do here at GVSU. As RSO, I am confident that she brings sufficient training and experience to use P-32 safely here at GVSU.

Please let me know if this is sufficient to proceed with our amendment application. If you have any questions please don't hesitate to call.

Thanks, Jim

Jim Seufert  
Chemical Hygiene Officer, Radiation Safety Officer  
Grand Valley State University  
322a Padnos Hall of Science  
Allendale, MI 49401  
616-331-8628  
616-450-0875 (c)

## Parker, Bryan

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**From:** Jim Seufert [seufertj@gvsu.edu]  
**Sent:** Thursday, October 11, 2012 10:55 AM  
**To:** Parker, Bryan  
**Subject:** RE: GVSU License Amendments  
**Attachments:** Hart Amendment Additional Info.pdf

Bryan,  
Please see attached. Is this what you had in mind?  
Thanks, Jim

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**From:** Parker, Bryan [mailto:Bryan.Parker@nrc.gov]  
**Sent:** Tuesday, October 09, 2012 6:03 PM  
**To:** Jim Seufert  
**Subject:** RE: GVSU License Amendments

Hey Jim,

That is partly what I need, but I also need more information regarding amounts of P-32 used at Wayne State and Vanderbilt. Could you ask Dr. Hart to provide that? – I really do not need publications, etc – just some description of how much P-32 she has had experiencing handling.

Also, when you respond, please email it to me with a signed letter (PDF) from YOU, since you are authorized to act and make the request on behalf of the licensee.

If you have any questions, please let me know.

Thanks.  
Bryan

**Bryan A. Parker**  
Health Physicist  
USNRC - Region III

[bryan.parker@nrc.gov](mailto:bryan.parker@nrc.gov)  
678-828-7050  
630-515-1078 (fax)



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