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10 December 1999

Mr. William W. Rice
Deputy Assistant Administrator
US EPA, Region VII
901 N. 5th Street
Kansas City, KS 66101

Dear Mr. Rice:

We are writing in response to your letter of November 23, 1999 requesting clarification on the Community XL project proposed jointly by IERE and HMH & Associates. We are pleased to submit our response to your questions, and we are anxious to move this project forward. Like EPA we are excited about the prospect of using this approach as part of the management of agricultural systems. We believe it can yield substantive improvement in the environmental performance of this important sector of the economy.

By our response, we have attempted to provide additional information as clearly & concisely as possible, without leading to confusion or misunderstanding. However, if further detail is required, we will do our best to supply it. Be further assured that we expect that a wealth of additional detail will result from our many discussions over the coming months, for this is an evolutionary process.

Our responses are directed point-by-point to the questions you have raised. They are supported by three separate documents (one supplied under separate cover): a draft communication plan, a preliminary flow sheet of the process as prepared by HMH, and a specification for annual reporting under the IERE program (along with examples at all three levels of the program). Most of the questions you have posed are directly addressed in these documents. We believe that, together, these documents form a good starting point for our further discussion.

We look forward to starting them in the near future.

Best regards,

Rita C. Schenck
Executive Director, IERE

HENNING, METZ, HARTFORD & ASSOCIATES, INC. (HMH)

Gerald D. Hartford, Jr., P.E.
President / CEO

COMMUNITY SELECTION PROCESS AND PUBLIC INVOLVEMENT

What role does IERE and HMH have in siting these facilities? Public Outreach?

Facility siting processes involve a contractual arrangement between the producer groups and the communities. This process is facilitated by State economic development agencies. HMH's only role is to provide technical information to a short list of communities so that they can develop siting proposals. IERE has no role in this process.

IERE and HMH have no role in any public outreach pursuant to siting of the facilities.

What role does the State(s) have in selecting communities and in the public participation and outreach components of establishing these plants*?*

Several state agencies provide information that assist producers in choosing appropriate communities. The State economic agencies are the lead in collecting this information and providing it to the producer group. Public outreach to the community is at the discretion of the individual communities' officials. Public outreach at this stage would be unusual.

What role does the Producer Organization have?

The producer organization selects the communities, based on proposals submitted by communities.

What role does EPA have in selecting communities for the location of these plants? What role will EPA have in the Public participation process?

As noted above, public participation is rare in this process, and is at the discretion of community officials. EPA's participation is also at the discretion of the community officials.

Does an additional/different process need to be established and agreed upon to address the needs of the Project XLC stakeholders for information and involvement as communities are selected for the location of the plants?

Once the site is chosen, the project XLC stakeholder process will be focused on that site.

What specific communities have been contacted so far?

In Missouri, the producer group issued requests for proposal to the following communities: Mexico, Bowling Green, Vandalia, Vienna, Shelbina and Monroe City.

We are not aware of what communities have been considered in Nebraska, and the process is still in very early stages elsewhere.

By what means will communities be contacted?

Communities are first contacted by State Economic Development Agencies, addressing the relevant local officials. Subsequently, the economic development agencies convey Requests for Proposal to selected communities from the Producer Organization.

When a community is considered, what form of public outreach will be conducted? How will IERE and HMH communicate with the community?

As noted above, public outreach is at the discretion of the community officials. HMH and IERE have no communication with the communities, with the exception of the technical information and briefings provided by HMH to assist officials in developing their proposals.

What issues are covered when engaging the community?

If by the community, you mean the public, we are not privy to these discussions. If by the community, you mean the community officials, a broad range of issues are covered, mostly by the economic development agencies. These issues include, but are not limited to questions of labor quality and availability, infrastructure, environmental issues, and financial considerations.

What approaches will be used to gain community acceptance and assess this support?

Again, IERE and HMH are not part of any public outreach process, which process is at the discretion of the local officials. One role of the economic development agencies is to assess the tenor of the communities with respect to potential siting. This is accomplished through discreet inquiry and through the economic agencies' accumulated experience in potential communities.

What role will the community have in the decision-making process?

The community acts through its elected and appointed officials.

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

If community means community participants, which community participants (meat packers, meat produces, other suppliers, citizens, leaders or groups) will have an approved EMS? What timeline (approximate) do you envision for bringing in these community participants and for implementing of a functioning EMS at each participating facility?

The concept of a community-based EMS is that each community will have a community board to provide oversight and verification of the EMS of facilities in the community. IERE will organize the community boards and provide the necessary training for the board. Participants on the board will not be producers or employees of the meat packing facility, so that the board can maintain its independence from the facilities it oversees. Organizing the community board will begin shortly after the facility site is chosen.

The packing facility will have a functioning EMS from the day it starts operating. This EMS will conform to the ISO 14001 standard, and will either achieve registration or will self-declare in the first 6 months of operation. We do not anticipate farms to have an EMS under ISO 14001. However, their performance will eventually be evaluated in the context of the meat packing facility's life cycle approach to EMS.

In addition, the community environmental board will be encouraged to bring other businesses into the program.

Are all the participants with EMS's going to be ISO 14001 certified? If not, are they self-certifying using third party ISO 140001 trained auditors?

Yes, one of these paths to ISO 14001 will be chosen. The decision will be the choice of the individual facility. Registration under ISO 9000 will also be undertaken, and this effort will be integrated with the ISO 14000 program.

In some areas, current animal waste production exceeds the amount of land available for land application. This facility could encourage increased animal production. Would you intend to consider animal waste handling through the entire life cycle or just at the plant itself?

It is clear that animal waste is the primary source of acute environmental degradation due to animal production. As such, we intend to address waste produced over the entire life cycle, with the goal of treating all animal waste in the same fashion as human waste, and with the same

care. We have begun evaluation of waste management technology, and welcome the input of the EPA and the States in planning how best to address animal waste over the life cycle.

Regardless of the technology chosen, the installation of effective waste collection and management systems at all farms will be capital intensive, and can not be done overnight. Indeed, a primary driver for these farmer owned meat packing facilities is to provide the farmers with enough return on their product to allow environmental projects to be affordable. Our first goal will be to assure the quality of the waste management at the processing plant, with outreach to farms as part of the continual improvement of the EMS.

How is a "Vendor Management System" different from ISO-14001?

In the context of environmental management, vendor management involves the requirement of facilities and organizations to address the environmental aspects and impacts of their vendors. This can be done through purchase order requirements, through inquiries or through direct partnering with vendors. Vendor management is just one element of an ISO 14001 EMS.

ISO 14001 is a comprehensive management system that is based on management commitment, and a systematic approach to continual improvement of a facility's environmental performance.

What amount and type of public participation do you envision will be needed to develop and implement a community-based EMS over the life of the facility? What challenges might we face in doing this in rural farming communities with less than 3,000 population?

As noted above, we intend to develop a permanent, standing community environmental board in each of the communities in which a facility is located. For IERE, this implies a permanent program of outreach and training, visiting each community at least twice a year. Small communities do present particular challenges. In particular, the population from which to draw concerned citizens is small. However, in community EMS programs in Michigan, it is citizens such as school teachers and wastewater treatment plant operators who form the backbone of the committees (which can contain as few as 3 members).

If one currently exists, please submit an example of the type of EMS you intend to use as a basis for the XLC project. Areas of particular interest to EPA are the environmental policy, some of the significant environmental aspects you expect to deal with, examples of EMS projects you expect to have, and discussion of internal and third party auditing. If you do not currently have an example we would plan to discuss and/or develop a model prototype or model should we move to FPA negotiation.

We believe that this question refers not to the EMS *per se*, but to reporting on the EMS. Please see the attached example, which includes specifications and examples for EMS annual reports at all three levels of the program.

Measurements are an important part of the EMS process. What are we going to use for baselines? You mentioned the industry averages for waste, for water use, for holding times, etc. That is acceptable, but we hope that you will benchmark your new operation and set some goals for what you expect to produce using the enhanced systems.

We wholeheartedly agree that measurements are at the heart of the EMS. The Community EMS system is based on measuring performance on a life cycle basis, as shown in the attachment on reporting. We have already received assurances from Region VII that they will assist us in identifying industry performance against which we should measure our progress. Although certain kinds of performance measures are readily available (*i.e.* those mentioned above), it is much more difficult for us to get measures of actual facility and farm performance, (*e.g.* actual emissions of ammonia as a function of production). Furthermore, industry performance is a

moving target, and tracking it is therefore an ongoing process. As this program grows and matures, we expect to have the resources to track this issue.

WASTEWATER

The project proposal indicates that similar plants have been built in Europe. What are the specific locations of these facilities?

Although projects in Europe are similar in concept relative to low line speeds and sanitation, the exact manner in which the HMH facilities are designed, built and operated is new and constitutes HMH's intellectual property. Many of the design & operating features of the HMH facilities are derived from visual observation of, or working in, facilities in other Europe, but the HMH facility is not an exact duplicate of any one. Instead, it is a marriage of the best of many observations, and many years of practical experience with the design, construction & operation of livestock processing facilities.

The facility locations observed by HMH personnel, in other European countries, are as follows:

1.	Nord Fleisch AG	Lubeck, Germany
2.	Hans Adler OHG	Bonndorf, Germany
3.	Staedt. Schlachthof Kulmbach	Kulmbach, Germany
4.	Fleishchzentrum Rettstadt	Windhausen, Germany
5.	CG Nordfleisch	Lubeck, Germany
6.	Steff-Houlberg Slagteriene	Ringstad, Denmark
7.	Danish Crown Amba	Vojens, Denmark
8.	Abattoirs Ste' Morey & Fils	Cuiseaux, France
9.	St. Unicopa	St. Jean Brevelay, France

What types of treatment facilities do these plants use?

Although HMH personnel observed numerous existing facilities and worked in a few, we have no specific knowledge of how waste was being treated --- solid waste or wastewater.

Do you have discharge data for BOD, TSS and ammonia for these facilities?

No, we have no such data.

What are the anticipated qualities of the untreated wastewater with respect to flow, BOD, TSS and ammonia?

We anticipate the following in untreated (prior to in-plant treatment) wastewater:

BOD = 2500 ppm
TSS = 2000 ppm
FOG = 1500 ppm
Flow = 90,000 to 100,000 GPD (gallons per day)

What are the anticipated headworks loadings to an outside treatment plant or a POTW when the plant is operating at full capacity?

We intend to provide pre-treatment facilities inside the HMH livestock processing facilities generating discharge wastewater in accordance with current permitting requirements of the respective state in which facilities are constructed. The level at which we expect discharge to be is as follows:

BOD = 300 ppm
TSS = 250 ppm
FOG = 200 ppm
Flow = 90,000 to 100,000 GPD (gallons per day)

Please discuss the technologies you propose to use to minimize water and other resource usage throughout the process.

Relative to water, the first technologies we intend to utilize are low line speeds (1,500 head per day) and one shift per day. These two technologies reduce total water usage significantly, allowing the HMH facilities to effectively pre-treat all wastewater discharge (if necessary). Rural community POTW's can typically accommodate the volume of wastewater generated by the HMH facilities.

Because we intend to operate only one shift per day, we are not holding any significant number of hogs on-site for any long period of time. Overnight stays will be limited to the number of hogs we need to begin the process each morning and the coordinated daily procurement of delivered hogs.

Secondly, the HMH livestock processing facilities will not scald hogs, but rather skin hogs, thereby minimizing the quantity of water used for that purpose.

Thirdly, the proprietary nature of our design allows us to minimize water usage per hog, as compared to current industry standards. Current industry standards require 90 to 105 gallons of water, per head, per day. Our proprietary design only requires an average of 60 to 70 gallons of water, per head, per day. There will be no pneumatic cleaning inside an HMH livestock processing facility. This minimizes the potential for biohazard distribution.

Site-Specific Questions – If discharge to a Publicly Owned Treatment Works (POTW) facility is chosen

We do not intend to utilize surface water discharge or surface irrigation, at this time.

These new facilities will increase both hydraulic and organic loadings to the POTW. By what means will you assess the ability of the receiving POTW to continue to meet secondary treatments for BOD and TSS?

Each of four (4) pre-selected sites have stated that their respective POTW has adequate capacity to accommodate both the hydraulic and the organic loading from our livestock processing facility. In fact, POTW capacity was one of the criteria for initial pre-site selection (short-listing).
When the actual site is selected, (not yet known), we intend to work closely with the POTW to ensure that all current permitting requirements are satisfied. We intend to meet those requirements by providing pre-treatment of wastewater inside our facilities to ensure that we do not exceed permit requirements for discharge to the POTW.

Slaughterhouse wastes contain high levels of ammonia and organic nitrogen. For this reason, a POTW receiving this waste may require ammonia limits in its NDPES permit and

be required to upgrade. Have you considered how you will be able to upgrade POTW's in these situations while still meeting ambitious time lines for plant construction and operation?

The pre-screening of candidate sites has allowed the producer group to ensure that either the existing POTW is adequate or that upgrades will be made in a timely manner to accommodate our plant coming on-line, according to our construction schedule. Apparently, the financial means are in place to assure us of a POTW with adequate capacity. We have no knowledge or control of this issue at this time.

Will treatment agreements with the receiving POTW address the additional sludge production associated with these new loadings?

Until a specific site is selected, negotiation of treatment agreements is not possible. We will discuss such issues once a site is selected.

Specific wastewater treatment processes to be performed on site are what?

We intend to provide pre-treatment and treatment on site to satisfy current permitting requirements for discharge to the local POTW.

Optional design (Option #1) may be provided to take the wastewater to a level that would satisfy NDPES requirements (a 10-fold reduction in BOD, TSS, FOG, etc. from that currently required by the POTW). Example --- if current permitting requires BOD = 300, Option #1 would reduce it further to a BOD = 30.

Further optional design (Option #2) may be provided to take the wastewater to a level typically equivalent to nature itself (a further 10-fold reduction in BOD, TSS, FOG, etc. from that identified in our optional design #1). Example – if current NDPES requirements set BOD = 30, Option #2 would reduce it further to a BOD = 3.

AIR & ODOR EMISSIONS

What air emissions are expected and how is air permitting being handled? What means of odor control is being provided to assure adequate prevention of complaints and violations of Missouri's odor regulations?

Since there shall be no rendering on-site, the only odors that will likely be generated are live animal odors when live animals are delivered to the facility and/or odors from animal waste that is air-dried and spread. Otherwise, there is nothing in the facility or around the facility that will generate obnoxious odors.

We intend to prepare and submit all required air permits to the state of Missouri.

HAZARDOUS WASTE

What hazardous waste materials do you expect to utilize at this plant? Will there be used containers, laboratory wastes or equipment maintenance residues of which to dispose?

We do not intend to use any hazardous materials on site. All cleaning solutions shall be bio-degradable materials. All greases and oils shall be food-grade.

The only potential source for any hazardous waste material might come from the analytical laboratory and/or the battery storage area, which are proposed to be on-site. Items that may be used in this lab or other areas would include, but not be limited to, the following:

Alcohols
Lab chemicals
Culture plates
Swabs
Bandages (personal injury items)
Sponges
Acids – lab
Acids – battery room

In every case, if there is a biohazardous material, it shall be "red-bagged" appropriately and taken off site immediately. There shall be no stock-piling of hazardous material.

In the case of acid waste, HMH shall provide acid neutralization basins to adequately neutralize any acid before it is allowed to discharge to the sanitary waste system.

WASTE HANDLING

The engineering firm has indicated the use of composting to handle some of the animal wastes from the facility. This dry handling approach will require a permit from the Missouri Solid Waste Program and runoff will have to meet the requirements for containment and monitoring of the Missouri Water Quality Program. Please prepare a flow chart which provides information on the wastes which will be directed to the composting operation, the sanitary sewer, the drainage patterns, and the solids recovered for transport to rending or hides for tanning, etc.

Upon site selection, we can begin to define drainage patterns on site.

Relative to the concept of aerobic composting, our approach would be approved by the state of Missouri prior to the implementation of this process. But in that regard, we are also considering air-drying and spreading, as well as anaerobic digestion. Each option has advantages & disadvantages. We have honestly not yet established a final solution to this issue, although at this time, we are proposing air-drying & spreading as the most cost effective method of solid waste management.

Regardless of what means of waste handling is selected, we shall ensure that the issue of containment and monitoring is accomplished in accordance with state requirements.

A complete flow diagram identifying all inputs to & outputs from the HMH livestock processing facility has been generated and is available for review (under separate cover).

FOOD SAFETY & ENVIRONMENTAL ISSUES

What will be the impact on water usage and on wastewater quantity and quality of implementing the Food Safety and Inspection Services's HACCP at the proposed facilities?

None. The operation of the HMH livestock processing facility will set a new standard for implementation by FSIS, and all existing livestock processing facilities currently in operation.

Will implementation of HACCP conflict with or limit opportunities for environmental pollution prevention at the proposed facilities?

No. The operation of the HMH livestock processing facility will raise the bar of HACCP and create a new level of food safety that all others will be encouraged to meet. Therefore, HACCP itself is not an issue. We are already beyond HACCP standards as they exist today.

OVERALL SCOPE OF THE PROJECT & COMPLIANCE SCREENING

Given the fact that the XLC is a pilot program, can you tell us what expectations you have for the overall duration and scope of the project (i.e. number of facitilties, etc.)?

The intent and goal of HMH since we began this process over two years ago, was to design, build and manage livestock processing facilities that set a new standard in food & environmental safety, that were socially-friendly. That remains our intent and goal, still today.

If we were to design & build fifty (50) HMH livestock processing facilities over the next 10 years, we would only equal 58% of the current livestock processing capacity in the state of Iowa. In doing so, the significant difference is that ours would all be socially & environmentally friendly, producing a higher quality, higher sanitary meat product, thereby ensuring the health and welfare of the general population, on all levels.

EPA and the sponsors will need to jointly develop a process for compliance screening for the producer cooperatives that will own the facilities permitted under this XLC project.

We agree.

Draft
Agricultural Community EMS XL Program Communication and Outreach Plan

Objective: To assure that all relevant parties to the process are informed of matters that pertain to them, while confidential business matters are protected

Scope: This communication plan is effective until the end of the negotiation of the XL project. At its termination, either a new plan will be put in place to address implementation issues, or the XL project will be terminated without outcome.

Parties: This communication plan addresses the parties working on the project, including:

- EPA Headquarters
- EPA Region VII
- State Environmental Departments
  - Missouri DNR
  - Nebraska DEQ
  - Kansas DHE
  - Iowa NRD
- State and regional economic development organizations
  - Missouri Department of Economic Development
  - The Missouri Enterprise Business Center
  - The Northeast Nebraska Economic Development District
  - Nebraska Department of Economic Development
- Local governments where facilities are planned
- The Osage County Independent Pork Producers
- The Nebraska Pork Producers
- The Institute For Environmental Research and Education
- HMH and Associates

Contents: This plan also addresses activities relevant to the XL project itself, including:

- Negotiation of the XL project itself
- Stakeholder outreach for Project XL
- Facility Siting Processes
- Environmental permitting processes at the state level
- Marketing and financing discussions

Of particular concern is any communication to the public. This project has many stakeholders who have a right to transparency in the XL negotiation process, as well as the opportunity to participate in that process. At the same time, HMH and the pork producers have legitimate needs to support the confidentiality of their business information. This plan is intended to balance the need for transparency and public communication against the need for confidentiality.

Negotiating the XL Process

IERE and HMH & Associates have brought forward a proposal for a community XL project, which trades expedited permitting of community-based meat-packing facilities for a community-based EMS plus superior environmental performance from day one of operation. It is understood that EPA's preliminary acceptance of this project does not imply that the XL proposal will ultimately result in a final agreement between EPA, the states and the proposers. Communication about the stage of negotiations and publication of the final project agreement (if any) are the responsibility of EPA, which shall publish them through its website and through the Federal Register (if appropriate).

During the XL negotiation process, EPA will from time to time need to contact stakeholders to the process. Notice that such contact will occur will be provided to IERE prior to such contact.

During negotiation of the project, HMH will be required to provide details about the processes they have designed. To the greatest extent possible, HMH will endeavor to provide that information in formats that do not disclose company confidential information. In the event that proves to be impossible, HMH will clearly notice the information and documents as being confidential business information. EPA and other parties to the negotiation will initiate procedures to maintain the confidentiality of this information.

Stakeholder Participation

IERE will have the primary responsibility for communicating about the project with stakeholders. The stakeholder participation will be of two types. Local stakeholders will be solicited in the communities in which the facilities are planned. These stakeholders will form the basis of a community environmental board to oversee the plant's operations. Organizing meetings of the community board will be open to the public, and the EPA and the State regulators will be invited to attend.

IERE will also proactively approach national environmental NGO's to gather their input on the program. IERE will maintain minutes of meetings in the local communities and with national NGO's and will provide them to EPA and HMH.

The Facility Siting Process

The facility siting process is basically a contractual process between the producer groups and the communities involved. However, local regional and statewide economic development organizations participate as facilitators of this process. The state environmental departments are important assistants in the process, providing information about the environmental and regulatory concerns in different communities. There is a great economic and political benefit for keeping the discussions about potential sites out

of the public domain. For example, if facility locations are announced early, it is not unusual for the cost of land to double in the relevant town.

Information about the siting process should be managed by the lead economic development agency. All parties to the process (producers groups, community officials, the state regulatory organizations, and HMH) should see that information about the potential siting locations flows only through the lead economic development agency. In the event that information flows outside the siting group, the lead economic development agency should inform all parties to the process, as well as EPA and IERE.

Permitting Process

Strictly speaking, the permitting process is a transaction between the state and the relevant producer group. However, the initial permitting processes will act for models for the XL process, and therefore are relevant to the XL negotiation process. All documents in the permitting process will likely be added to the XL negotiation files, and should be treated as such.

Marketing and Financing

Marketing and financing discussions are inherently confidential business information. It is the responsibility of the parties to execute any relevant non-disclosure agreements and to abide by them. In the case where financing is derived from public sources or where public statements of support are obtained, EPA and the relevant state agencies should be informed.

Points of Contact

Organization	Contact Name	Phone	e-mail
EPA Headquarters	Kristina Heinemann	202-260-5355	heinemann.kristina@epamail.epa.gov
EPA Region VII	Dave Erickson/ Jody Hudson	913-551-7162/ 913-551-7179	erickson.david@epamail.epa.gov; hudson.jody@epamail.epa.gov
Missouri DNR	Todd Crawford		Nrcrawt@mail.dnr.state.mo.us
Nebraska DEQ	Ron Asche	402-471-2188	
Kansas	Don Carlson	913-296-5547	
Iowa	Steve Williams	515-281-8877	
IERE	Rita Schenck	206-463-7430/ 206-605-8715	rita@iere.org
HMH & Associates	Joe Shoemaker	309-235-1118	jerry@hmhinc.com
Osage County Independent Pork Producers	Mark Russell	573-455-2453	
Nebraska Pork Producers	Stan Rossadaht	402-285-0421	
MAMTC Missouri	Jimmy Story	573-364-8570	
NNEDD	Raney Robson-Scheer,	402-379-1150	

Other Contact Information

Missouri Siting Process

1 DNR Identified 15-20 Communities based on water requirements, groundwater concerns and other environmental issues. That information was submitted to:

Jimmy Story
MAMTC Missouri
Missouri Enterprise Business Assistance Center
Rolla, MO
573-364-8570

Darrell St. Claire
Project Manager
Missouri Department of Economic Development
Jefferson City, MO
573-751-0482

For their input in the areas of:

- Manpower
- Utilities
- Political considerations
- Load capacities and capabilities

2. The annotated list of 15-20 communities was given to the Osage County Independent Pork Producers (the Co-op). The co-op winnowed the list to eight communities.

Mark Russell (consultant to Co-op)
573-455-2453

Christy Schuler, President of Co-op
573-897-3032

3. The Co-op sent the list back to MAMTC and the MoDED, for further review and investigation of capabilities and local willingness to accept a plant.

4. The DED gathered data from DNR, Department of Labor and other sources and provided that to the Co-op.

5. The Co-op, along with MAMTC and the Mo DED requested HMH to meet with representatives of six communities. The representatives included mayors, elected officials, city administrators, and wastewater treatment managers. The purpose of these meetings was for HMH to lay out information on the proposed plants, so that communities could prepare responses to the RFP provided by MAMTC. The communities were Mexico, Bowling Green, Vandalia, Vienna and Shelbina and Monroe City.

6. One city, Vienna, held a public hearing to elicit input. Representatives of the Co-op and MAMTC Attended.

7. Four cities, have submitted RFP's to the MAMTC, which has forwarded them to the Co-op.

9. Site decision will be made by November 20.

Nebraska Site Selection Plan

1. Nebraska Pork Producers create a group to develop the facility. Group lead by Stan Rossadaht 402-285-0421
2. Stan is leading effort to gather commitment of financial support and animals to build the facility
3. Group will work with the Northeast Nebraska Economic Development District (NNEDD) Representative, Raney Robson-Scheer, 402-379-1150 to identify potential building sites, and coordination activities.
4. NNEDD will select 15-20 communities based on past interest in agriculture facilities; that list will be submitted to the Nebraska DEQ for preliminary review for environmental issues, especially those pertaining to wastewater infrastructure.
5. NNEDD will provide list with DEQ information to Nebraska Department of Economic Development, to identify issues of workforce availability, wage structure and unemployment.
6. NNED and the Nebraska Rural Commission (Tom Hanson, 402-471-6002) will work with elected officials in the listed communities to elicit information on interest and opposition.
7. All collected information will be provided to the producer group, which will develop a short list.
8. NNEDD will develop an RFQ, and send it to the short-listed communities
9. HMH and the Producer group will meet with officials in the short listed communities to provide information on the proposed facilities, so that proposals can be developed.
10. The producer's group will review and select site.

Reporting Requirements for the IERE
Community Based Environmental Management Systems

These reporting guidelines are based on a phased approach:

Phase I just starting the EMS, yet conforming to ISO 14001,
Phase II, a mature EMS, and
Phase III environmental leadership level.

The concept behind this scheme is that disclosing performance of the facilities will lead to better performance and build trust between the facilities and their local stakeholders.

In the first phase, the facility must make a commitment to compliance, and continuous improvement, and must identify the environmental aspects of its products, services and activities. At least annually, the facility should provide documentation that includes

1. The facility's environmental policy statement
2. A description of its products, services and activities
3. A list of its environmental aspects, and how they relate to the above
4. A list of the environmental regulations to which its must adhere
5. A summary of the action plan based on the above, including self-audits
6. If the facility is past its first year in the program, a description of how the past action plan(s) was implemented.
7. Any known violations of the regulations during the past year, identifying whether those violations are administrative or substantive in nature
8. Contact information

The intent with this disclosure is not to release competitive information to the public, nor is it necessary to overwhelm the public with detailed information. An example annual disclosure report is provided below. The complexity of the report will depend partly on the complexity of the business activity, and partly on the sophistication of the environmental management.

The environmental policy statement

The environmental policy statement must conform to the ISO14001 requirements. That means it must be:

- Appropriate to the business
- Based on the businesses environmental aspects and impacts
- Make a commitment to compliance
- Make a commitment to continual improvement
- Make a commitment to pollution prevention
- Provide a framework for its environmental management system

Most of these requirements are self-explanatory. However, there can be some questions about how to provide a framework for the EMS. Basically there are three possible ways to provide a framework. One can name a person or organization to be responsible for EMS development; one can set out a process for development (e.g. we will review our aspects annually in teams, then set goals based on the top three aspects, then implement and review quarterly). Finally, one can set up some guiding principles, such as identifying important environmental impacts or stating a preference for local versus global impacts (or vice-versa). A framework that includes people, process and principles really sets a strong base for getting the EMS job done.

The description of the business

Here the objective is to give people some basis of understanding why you have the environmental aspects you do have. Are you making airplanes or frozen food? Is your business local or global? Is it high tech or

low tech? Marketing material about the business is perfectly adequate for this purpose. What is emphatically not desired here is detailed information about your processes that can be used by your competitors.

The list of environmental aspects

This list should relate to resource use and emissions to water, air and soil. At this level, detailed information about how much or what kinds of emissions you have is not necessary.

A list of the environmental regulations to which its must adhere

This is a straight forward listing. If you don't know the regulations that apply to the business, you can't develop an action plan to comply

A summary of the action plan based on the above, including self-audits

At this level, only an action plan for compliance is absolutely necessary. However, it is wise to start thinking about pollution prevention and make some steps for that.

If the facility is past its first year in the program, a description of how the past action plan(s) was implemented.

If you already have implemented a plan, did you achieve your targets and goals? If you went beyond them, let the world know. If unavoidable circumstances got in the way of achieving your goals, explain that, too.

Any known violations of the regulations during the past year, identifying whether those violations are administrative or substantive in nature

Compliance is hard, and 100 percent compliance is almost impossible. What people need to know here is whether there is a pattern of non-compliance, and whether any non-compliances had an actual effect on the environment. A paperwork mistake is not considered substantive. Exceeding discharge standards is substantive.

Contact Information

Who to contact and how to get more information

Annual Report for The Osage Green Pork Facility (Phase I)

Environmental Policy

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Description of the Business

The Osage Green Pork Facility is a farmer-owned meat packing plant. It produces packaged edible meat, organ meat and offal, hides, and meat by products for up to 1500 hogs per day. These products are marketed to national and international markets. All meat products are traceable to their source, and permit specialized marketing of products from particular farms.

The facility employs 30 operators who work for an eight hour shift, five days per week.

Environmental aspects of meat processing include

- the use of electricity to run machines,
- The use of fuel to heat water and the related air emissions
- The production of animal wastes
- The use of water for cleaning and processing
- The use of CO_2 for stunning animals

Additional environmental aspects of the business include:

- Upstream impacts from the production of animals
- fuel to heat the building,
- land use for the building and parking lots
- maintenance chemicals, including cleaners and paints
- use of general carriers for the receipt and delivery of raw material and products
- use of paper, and office equipment
- electrical consumption for lighting and office machinery

Environmental Regulations that apply to OGPF

To the best of our knowledge, OGPF has only four sets of environmental regulations to follow

RCRA: OGPF is a conditionally exempt small quantity generator of hazardous waste, and a producer of solid waste
CWA: Joe’s discharges cleaning waters to the sewer, and has a pre-treatment permit through the local POTW
CAA: Joe’s registers his boiler stack with the state pollution control agency
State Composting: Joe's has a composting permit with the State

Action plan

The maintenance manager has been appointed to oversee day-to- day compliance. This year, OGPF is hiring a consultant to performing an environmental audit, to verify that all environmental paperwork is correct. This includes conformance to ISO 14001, for which OGPF is self-declaring. The consultant will also make sure that Joe’s has a current copy of all applicable regulations.

OGPF is training or re-training all its personnel about CWA compliance in the first quarter, and is sending two employees to the IERE ISO 14001 auditing course. CWA and ISO 14001 training sections of the new employee handbook, will be updated, in conjunction with worker right to know training, and USDA HACCP training. In addition, all Laboratory personnel will be trained on their RCRA responsibilities.

The valve to the sewer is controlled manually, and has a written log book. It is examined monthly as part of the regularly scheduled preventive maintenance program.

OGPF is planning to reduce and recycle its CO_2 through the use of an outside vendor/recycler. This program should be in place by year end.

Compliance record

During the last year, OGPF received a non-substantive citation for an error on its laboratory hazardous waste manifest. Since our manifests are prepared by our hazardous waste hauler, we have corrected this problem by switching vendors.

Contact Information

For further information on our program, please contact
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Phase II, Mature Environmental Management System

In the second phase, facilities will continue meeting the requirements of the first level, and will begin the process of a community driven life cycle approach to environmental management. At this level, the facility has a mature EMS that is basing its goals and objectives and measurement system on a life cycle indicator approach. Using the guidance in the ISO 14040 series of standards,

Programs that should be in place include:
- A community consultation process
- A design for environment (DfE) program
- Policies and procedures to derive life-cycle information from the vendor chain

Reporting Requirements

In this phase, the annual report contains many of the same issues as before, but the level of sophistication and maturity of the reports should have increased significantly. Note that this does not necessarily mean that the report should be significantly longer.

The elements of the report are shown below.

1. The facility's environmental policy statement
2. A description of its products, services and activities
3. A list of its environmental indicators, and how they relate to the above
4. A summary of the action plan based on the above, including self-audits
5. A description of how the past action plan(s) was implemented, and improvements obtained.
6. Any known violations of the regulations during the past year, identifying whether those violations are administrative or substantive in nature.
7. Contact information

These are described in greater detail below

The facility's environmental policy statement
Requirements are unchanged from Phase I

A description of its products, services and activities
Requirements are unchanged from Phase I

A list of its environmental indicators, and description of how they relate to the above

The facility must, at a minimum have calculated site-specific life cycle indicators of environmental performance for their facilities, covering at least the following issues:

- Global Climate Change
- Acidification
- Stratospheric ozone depletion
- Eutrophication
- Photochemical smog
- Ecotoxicity
- Resource depletion
- Water resource depletion
- Land use

Some of these impacts may be zero, but if so this fact should be documented.

In addition, the facility will have consulted with interested parties to identify whether other categories of impact should be evaluated, and if so, those should be included in the assessment.

A summary of the action plan based on the above, including self-audits

The action plan should be specifically addressed towards decreasing the values of environmental indicators. It is useful to explain why certain indicators are pursued before others

A description of how the past action plan(s) was implemented, and improvements obtained.

If the facility is just entering the mature EMS phase, it is appropriate to document pollution prevention improvements, and to document any overall decreases in environmental impact categories.

Any known violations of the regulations during the past year, identifying whether those violations are administrative or substantive in nature.

Requirements are unchanged from Phase I

Contact Information

Who to contact and how to get more information

Annual Environmental Report for Osage Green Pork Facility (Phase II)

Environmental Policy

The Osage Green Pork Facility (OGPF) is committed to compliance to all applicable environmental laws and regulation, and to continually improving its environmental performance over the life cycle of the product, through pollution prevention and other means. Our ultimate goal is sustainable agriculture, and the production of safe and healthy food products. All employees are responsible for working towards this goal, and attend quarterly meetings where health, safety and environmental concerns are discussed and improvement ideas sought. The maintenance manager has responsibility for day-to-day environmental management.

Description of the Business

The Osage Green Pork Facility is a farmer-owned meat packing plant. It produces packaged edible meat, organ meat and offal, hides, and meat by products for up to 1500 hogs per day. These products are marketed to national and international markets. All meat products are traceable to their source, and permit specialized marketing of products from particular farms.

The facility employs 30 operators who work for an eight hour shift, five days per week.

A list of its environmental indicators, and description of how they relate to the above

The table below shows the environmental indicators describing the environmental performance of the meat processing facility, and how they relate to the products, processes and activities of the facility..

Impact Category	Indicator	Indicator Result	Primary Sources of Indicator
Global climate change	Global warming Potential	250 tons CO_2 equivalents	Electricity to run machines; transportation of materials and products, stunning operations
Stratospheric ozone Depletion	Ozone depletion Potential	1 kg CFC-11 equivalents	Refrigeration system
Acidification	Acidification potential	20 kg hydrogen ion equivalents	Electricity to run equipment; heating oil
Eutrophication	Eutrophication potential	100 kg phosphorus equivalents	NOx from Electricity to run equipment; transport of materials and equipment, and water heating
Photochemical smog	Incremental ozone reactivity	120 kg ozone equivalents	Transportation of animals meat, and materials
Aquatic toxicity	Tons exceeding Criteria standards	0 tons	Water to wash and provide cooling
Air based toxicity	PM-10	10 tons PM-10	Space heating, transport of materials and equipment
Resource depletion	Equivalent tons	10 tons titanium	Production of product
Fossil fuel depletion	Tons of oil equivalents	112 tons	Electricity to run equipment; transportation of animals, meat, and materials
Water depletion	Tons of water depleted	0	Not applicable
Solid Waste Generation	Tons of waste generated		
Land use	Hectares paved	0.5 hectares	Parking and building

A summary of the action plan based on the above, including self-audits

Evaluating the indicators shows us that the best in-house opportunities for environmental improvement comes from reduced consumption of fuels and electricity. These sources of pollution also create an opportunity for cost savings. Therefore, our goal for the year is to reduce global warming by 10 percent. This will lead to reduced emissions of NOx and other air emissions as well.

To accomplish our goal we have the following plans:

- Reduce electrical consumption by 15 percent by installing solar cells
- Implement the Greenlights program
- Reduce solid waste generation by composting lunchroom waste and paper-based packaging waste.

We will be tracking progress on a quarterly basis, using electrical bills and tipping information to support our progress.

We recognize that much larger opportunities for environmental improvement exist outside our walls. Therefore, we have begun our outreach to our producers, and this year we will be installing an anaerobic digester capable of treating all animal wastes from 10 percent of the animals processed at the facility. If this pilot project works, we will be expanding the program to the majority of the producers over the next few years.

A description of how the past action plan(s) was implemented, and improvements obtained.

Last year, we had the goal to reduce use of CO_2 by 25%, through improved recovery of CO_2. This goal was surpassed, with a 32 percent improvement in recovery, as recapture and purification equipment was installed in the stunning process. Our program continues through reduced use of fuels and electricity. We expect our total CO_2 emissions to drop 50 percent from the 2000 baseline.

Compliance

During the last year, OGPF was inspected by the state hazardous waste department and the local pre-treatment authority, but no violations were noted.

Contact Information

For further information on our program, please contact
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Anytown, USA

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Phase III: Environmental Leadership Reporting

Organizations at this level are environmental leaders in their fields. Not only do they conform to the requirements above, but they are performing life cycle assessments that covers their entire vendor chain, and using the output of the assessment to drive improvement of their products, services and activities. They have benchmarked themselves against their field to demonstrate superior environmental performance.

On at least an annual basis, they will report:

- their environmental policy
- A description of their business
- A listing of the environmental life cycle indicators and how they relate to the activities, products and services of the business
- Their environmental aspects, targets and goals, expressed in terms of life cycle indicators
- How they performed against their target and goals in the past year, using life cycle indicators to measure that performance. Longer-term performance trends are also desirable.
- Any violations of environmental regulations in the past year, and whether these are administrative or substantive, and a summary of compliance over the last five years
- Contact information

These are described in more detail below.

The facility's environmental policy statement
Requirements are unchanged from Phase I

A description of its products, services and activities
Requirements are unchanged from Phase I

A list of its environmental indicators, and description of how they relate to the activities, products and services of the business.

Requirements unchanged from phase II except that the assessment covers the entire life cycle, and relates performance to industry averages.

Their environmental aspects, targets and goals, expressed in terms of life cycle indicators

The facility should focus on the impact indicators over the entire lifecycle. Planned actions should related to reducing specific indicators. Focus should be related to places where the company's products and services are less environmentally preferable than their industry average.

How they performed against their target and goals

The facility documents any overall decreases in environmental impact categories, and compares them to best estimates of industry performance. Trends are documented in terms of improvements of life cycle indicators. Long term trends should be documented, especially if they can be couched in terms of life cycle indicators.

Any violations of environmental regulations in the past year, and whether these are administrative or substantive, and a summary of compliance over the last five years

Requirements are unchanged from Phase I, except that a five year trend is documented.

Contact Information

Who to contact and how to get more information

Environmental Annual Report Osage Green Pork Facility (Phase III)

Environmental Policy

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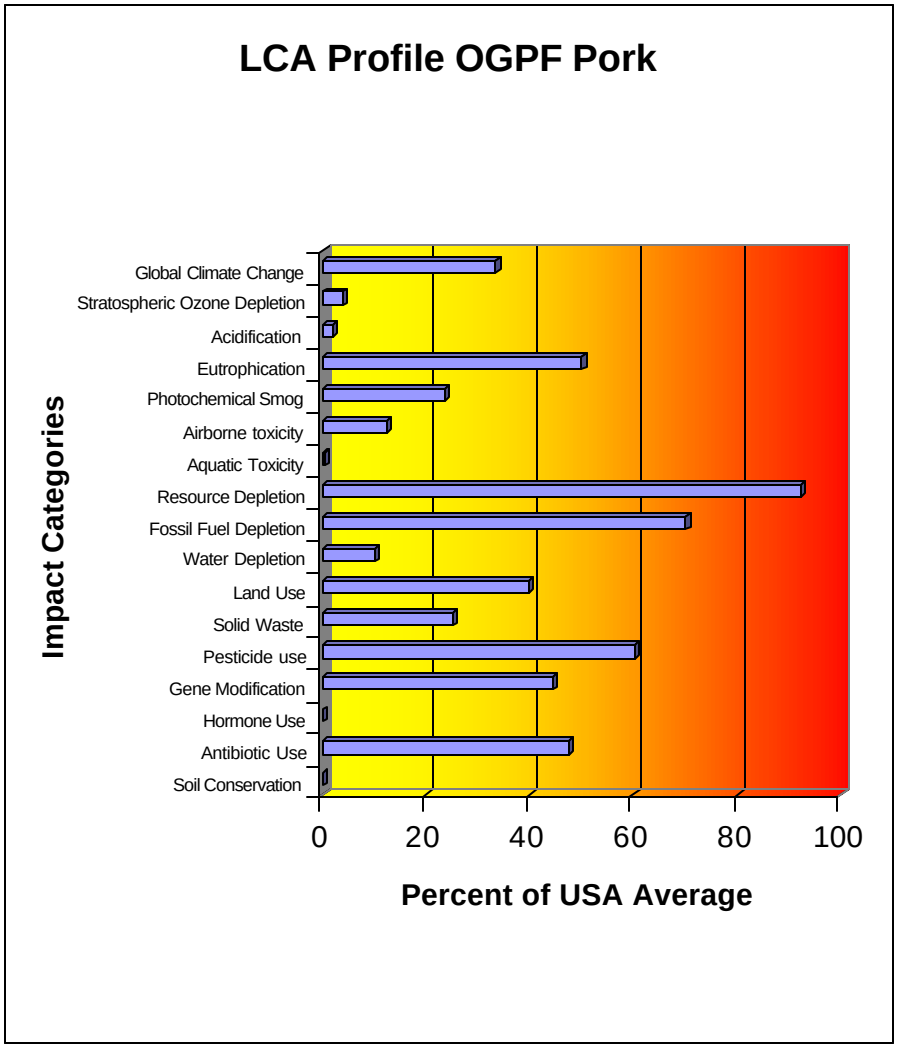
The facility employs 30 operators who work for an eight hour shift, five days per week..

Environmental Life-Cycle Indicators

The figure below covers the entire life cycle of our pork products. Results are normalized to the national average performances based on the published industry averages provided by EPA and USDA. Please note that there is some uncertainty in these industry averages, as they are only partly based on site specific analyses of environmental impacts. Instead, they represent environmental impacts based on a population - weighted US average location. That means that we have modeled the impacts ina hypothetical US average location.

The results are normalized to pounds of meat produced. Please note also that OGPF has other product lines not covered by this assessment, (i.e. offal and hides) but that these products represent less than 10 percent of the product line in dollars.



Environmental Targets and Goals

We are working to decrease the resource depletion and fossil fuel depletion of our products. These derive from the use of fertilizer and from production methods of the grains used for feed. To accomplish these goals, we are stepping up outreach to grain producers both in and outside of our region, seeking farmers and farm cooperatives that are willing to employ no-till methods of farming. We are also pursuing farms in

our region that may be willing to purchase the compost/fertilizer that comes from our anaerobic digesters. Use of this locally produced fertilizer will reduce the resource depletion due to imported fertilizer, and can bring these farms into our sustainable agriculture program.

Performance Against Targets and Goals

Due to our long-term efforts to reduce pollution, we have brought our pork products under the USA average for all indicators. However, we recognize that we have a long way to go before we have a truly comprehensive sustainable agriculture profile. Some of our farms are close to achieving this goal, but others need to develop their level of participation in the program.

Our goal last year was to bring our overall environmental profile below the national average for all indicators. We succeeded in all respects, as noted above. Over the last five years, fossil fuel consumption was reduced 35 percent (over the entire life cycle) and, through our DfE programs, we have reduced resource consumption 45 percent. Over the same time period, greenhouse gas emissions have dropped 50 percent on site and 10 percent offsite, yielding an overall reduction of 26 percent. Perhaps best of all, we have achieved our goal of zero net soil depletion, as some farms are actually increasing their topsoil enough to offset losses by other farms. We expect that topsoil will actually experience net increases in the coming years.

Over the last year we used our environmental performance to help market products to the European Union, at elevated prices, an important source of income growth.

Compliance

We have had no substantive non-compliance at our facility in the past five years, although we did have paperwork violations two years ago relating to reporting our wastewater discharge volume. This latter problem has been corrected through personnel training.

Contact Information

For further information on our program, please contact
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